

ANDROID BASED ATTENDANCE MANAGEMENT SYSTEM

Submitted in partial fulfilment of the requirements
for the award of
Bachelor of Engineering Degree in Computer Science and Engineering

by

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BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **SAGI RAHUL AYYAPPA (38110476)** who carried out the project entitled “**ANDROID BASED ATTENDANCE MANAGEMENT SYSTEM**” under my supervision from November 2021 to April 2022.

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I, **SAGI RAHUL AYYAPPA (38110476)** hereby declare that the Project Report entitled **“ANDROID BASED ATTENDANCE MANAGEMENT SYSTEM”** done by us under the guidance of **Dr. A. Santhasheela** at Sathyabama Institute of Science and Technology is submitted in partial fulfilment of the requirements for the award of Bachelor of Engineering degree in Computer Science and Engineering.

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ABSTRACT

Over many years of manual attendance management had been carried across lot of establishments in academics there will be some issues like loss of data, error during attendance marking. The system maintains the information residing on a server. It does the analysis mechanically. Managing attendance manually is an ancient approach which is a cumbersome method. The person must maintain the attendance record in registers and files. The most important matter with this approach is that it needs many papers that results a loss in the part of our non-renewable natural resources. So, to overcome the issues of manual report attendance, we developed “Android based Attendance Management System” using Android Managing the attendance through mobile phones, offers many advantages like this becomes the paperless system due to which non-renewable resources can be saved a lot and lot and human errors when marking the attendance can be reduced, attendance of a particular student is recorded daily, weekly or monthly and attendance percentage is calculated automatically through which students attendance eligibility criteria can be known without efforts. Communication between staff and also the parent is additionally a crucial issue that ought to even be thought of, because parent will solely get the knowledge regarding their ward once when they interact with college. So, we tend to additionally tried to bring the system that permits parent to receive the knowledge of their ward of regularity day to day.

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CHAPTER 1

INTRODUCTION

1.1. Introduction

Attendance Management System is software developed for daily student attendance in schools, colleges and institutes. It facilitates to access the attendance information of a particular student in a particular class. The information is sorted by the operators, which will be provided by the teacher for a particular class. This system will also help in evaluating attendance eligibility criteria of a student.

In most educational institutions, participation of students in learning process is regarded as a vital exercise for allowing knowledge transfer. This signifies the importance of having students to attend the scheduled lectures and classes. Conventional methods for recording students attendance are still adopted by most colleges. One common method is by having students to manually sign the attendance sheet, which is typically passed around the classroom while a lecturer is giving the lecture. This approach could undoubtedly allow the students to cheat about their attendance, where a student may sign for an absent student. Besides, such attendance sheet could easily be misplaced or lost. A stricter approach especially to prevent students cheating about their attendance is additionally tedious, where a lecturer calls out the individual names from the students list and validate the presence of every single student.

Such manual methods of taking students attendance have been proven to be difficult and time consuming. Thus, there is a need for a semiautomated system that would eliminate all of these troubles. Nowadays, mobile devices have become a way of life for students especially in higher education. Computers are now replaced by compact smart phones that can fit into pocket and can be carried anywhere. Attendance Management System is an application for taking daily attendance in schools and colleges. It provides minimal error in report generation of a particular student's attendance. The main motive behind this software is to replace the traditional pen and register system. Another reason for developing this software is to generate the report automatically at the end of the session

or in the between of the session. Smart phones are based on operating systems like blackberry, IOS and Android. To design this project, smart phones with Android operating system are chosen because penetration rate of Android OS is 70 percent. It is an open source and free ware operating system. The application is compatible with all Android versions starting from 4.2 Jelly Bean.

Therefore, it is our objectives to develop a portable attendance system equipped with an online database, especially to prevent data loss as well as to promote paperless and greener environment. Besides that, the application will help to reduce time being wasted, leading to a higher learning productivity in class. There are a few paperless attendance systems that have been developed but such systems need to be equipped with either a computer or RFID reader, resulting in additional cost for hardware and its maintenance. With that in mind, we have aimed to address this issue by having a system with minimal hardware requirement and at the same time, enhancing the mobility aspect of the existing attendance systems.

Attendance systems of old practices are not quite efficient today for keeping track on student's attendance. Due to the availability of large resources over the internet today, it is very hard to motivate the students to attend lectures without fail. Have become more challenging. In order to drag the attention of students and make them interactive in observing technologies we move on to latest upcoming trends on developing attendance systems. This is the strong reason for college attendance management system has to come up with an approach that ensures strong contribution of students in classrooms. To track attendance of the students, many attendance management systems are introduced in the market. With the introduction of this variety of attendance system, skipping classes without the staff's knowledge have become difficult for the students

The management and maintenance of student information is cumbersome task for any institution. The student's academic information consists of monitoring their performance and progress periodically which seems to be a huge workload on lecturers to handle and update on the progress of subjects for the respective classes. The traditional way of attendance is, recording manually in a log book and then converting into desktop application. Such system can be tedious process and may often lead to

errors while generation reports. Apart from this, sometimes the attendance sheets are lost, misplaced or information wrongly entered due to various reasons. In order to reduce the manual work and to achieve more efficiency in managing student's information, a smart phone based mobile application using android can be applied to make this process more easy and beneficial in every way. The proposed system will store, retrieve and sent the student information to the concerned person. In developed an android based mobile application for attendance system. Through this project, teacher can easily record the student attendance and report. Attendance Management System is software developed for daily student attendance in schools, colleges and institutes.

It facilitates to access the attendance information of a particular student in a particular class. The information is sorted by the operators, which will be provided by the teacher for a particular class. This system will also help in evaluating attendance eligibility criteria of a student. Android Based Attendance management system using android and Java technology. It consists of four modules such as user authentication process, calling of web service, attendance marking process and display information about students. In, proposed a framework for maintaining student attendance and also it tracks the illegal use of mobile phones during class hours.

1.2 Problem Statement

Attendance is taken every day on each working day whether it is college, school or any other institution and in this process every institution wasted lots of paper just for keeping the record. With such small reasons, our natural resources are depleting at the enormous rate and it can be possible that our descendants don't able to get those resources. The conventional and traditional mode of attendance management system (AMS) leads lot of paper work and it is hard to maintain for a long period of time. Due to the nature of manual work, it is hard to perform the activities related to the management of attendance, when there is a need in taking reports of specific interest and there is a chance of committing error in recording the data and information on the records.

The computerized automation of academic attendance management system is available in the form of personal computer based application and available in various computing platforms. The various topology equipped, PC based management

applications are running efficient and effective manner in many institutions and are being in the category of either internet based applications or intranet based applications [4]. The first category of in-ternet based management applications, the system at backend is in need of live server deployment of its database server. The second category of intranet based management applications, the system at backend is implemented within the local network as local database server.

This computerization of management systems provides the organization or institution to manage their academic/administrative activities in effective manner and is accessed by their all types of system user-s along with the support of 24/7. The system with mobility in the form of portability provides much accessibility. The mobile application based academic management system provides paper less activities, comparing with traditional and personal computer based computations. In this proposed, “design and development of Android based Academic Management System” (AAMS), the properties based on software engineering like ease of use, effective GUI, flexible in accessibility, and employing MIS principles are considered.

1.3. Purpose

The purpose of developing attendance management system is to computerized the tradition way of taking attendance. Another purpose for developing this software is to generate the report automatically at the end of the session or in the between of the session. In present situation, managing and maintaining the human information is difficult work for any educational establishment. The particular student tutorial information contains watching student performance and their progress sporadically that seems to be the heavy task for lecturers to take and update the progress of subjects in several categories. Similarly, way of taking the manual attendance is also a tedious work and errors also can be generated during report generation. So as to cut back the non-automation work and whereas to attain additional potency in management of student information, an android application which can be used in android phones is created using an easy approach with less number of difficult tasks. This system can save and retrieve and also sends the information to the particular person or student. Using this application, Staff can simply take the attendance and generates the report of a student.

System of Attendance management is a android application which is developed for recording day to day student attendance. It facilitates in accessing the attendance information of specific selected person in each particular category like department, section etc. Data can be sorted by the controller, who can be able to provide the teacher for a specific category. The current method can facilitates to provide the attendance eligibility rule for a student. It generally comprises of 4 modules – They are user, authority module, net service module, attendance building process and show information concerned to that person. It is a framework where students attendance can be taken by authorities based on hourly, daily, weekly or monthly basis. Attendance is taken daily on every operating day whether it's faculty, faculty of the other establishment and during this method each establishment wastes a lot of paper only for keeping the record. With such tiny reasons, our natural resources square measure depleting at the big rate and it will not be possible that our descendants that they don't able to get those resources.

1.4. Scope

The scope of the project is the system on which the software is installed, i.e. the project is developed as a desktop application, and it will work for a particular institute. But later on the project can be modified to operate it online. Attendance Management System is software developed for daily student attendance in schools, colleges and institutes. It facilitates to access the attendance information of a particular Employee in a particular industry. The information is sorted by the operators, which will be provided by the employee for a particular working day. This system will also help in evaluating attendance eligibility criteria of an employee. The purpose of developing attendance management system is to computerize the traditional way of taking attendance. Another purpose for developing this software is to generate the report automatically at the end of the session or in the between of the session. The scope of the project is the system on which the software is installed, i.e. the project is developed as a desktop application, and it will work for a particular institute or organization. But later on the project can be modified to operate it online. Employee Personal information: Name, Date of Birth, Age, Marital Status, address (permanent and present) and contact person details, Email, Contact no., Blood group, Nationality, Category, employee profile, Date of joining, Service up to, employee current position and job profile, family background details, employee local address and references details, Passport No., PF No, ESI No, Bank A/c No., Qualification details and previous work experiences. Manage leaves of all types for employees Manage different types of employee leave status: permanent, rolling contract and contract Leave ledger of employee Leave application management to be handled by HR Leave structure and policy management.

The benefits of using a time and attendance management solution at your workplace can not be underestimated. With thousands and thousands of employees working in many companies around the world, the need of an efficient organizational system or programs are getting more and more vital. Therefore, there are many companies implementing time management solutions in order to improve productivity. Attendance Management System covers the requirements of the

Personnel Department in terms of Manpower Analysis, day-to-day monitoring of the Attendance, Maintaining Statutory Registers, Monitoring of Leave Records, Calculation of Overtime and transfer of relevant information to the Payroll System. It also works well as a member database. You can create customized attendance reports, event schedules, membership rosters, and attendance forms. The program is easy to use, and it's well suited for any organization that needs to keep track of attendance.

1.5. Overview

Attendance Management System basically has two main modules for proper functioning:-First module is admin which has right for creating space for new batch. Any entry of new faculty, Updating in subject if necessary, and sending notice. Second module is handled by the user which can be a faculty or an operator. User has a right of making daily attendance, generating report. An Android Based Attendance Management System is a software solution for monitoring the attendance of the students. Academics in the India are to introduce a monitoring system to check when students attend or miss class. Sensors will detect student's identification card, when they enter the lecture theatres. Warton classes for example, makes use of software that automatically determined if the student didn't attend their classes and this will be reflected. An attendance management system serves as a time log that is set up as a computerized database. An attendance monitoring system maintains a daily record of a person's arrival and departure time from work or college. System Type The attendance Management system database is an application that contains electronic files about a person's history. Common Attendance Features An attendance monitoring system contains a person's name, address, Phone number, parents mobile number, Roll number etc. plan has been developed to support the strategic plan of the Attendance Management System. The implementation plan will be amended and updated as new actions are introduced and as developments are implemented to the system. The system tracks the performance of Students regarding their attendance on a daily basis Background of the Study The proposed system intended for Auto Precision Incorporate is an Attendance Monitoring system

that will record the arrival and departure of the Student. The existing system has a web or desktop based application for student attendance management and the faculty must take the attendance and later should enter the attendance details into the server manually.

CHAPTER 2

LITERATURE SURVEY

An Android primarily based group action Management System may be a package answer for observation the group action of the students. teachers within the Asian country square measure to introduce a observation system to visualize once students attend or miss category. Sensors can discover student's identification card, once they enter the lecture theatres. Warton categories for instance, makes use of package that mechanically determined if the code didn't attend their categories and this may be mirrored. An group action management system is a time log that's discovered as a computerised info. AN attendance monitoring system maintains a daily record of a human arrival and point from work or faculty.

System sort the group action Management system info is AN application that contains electronic files a few person's history. Common group action options AN group action observation system contains a human name, address, signal, folks mobile variety, Roll variety etc. arrange has been developed to support the strategic arrange of the group action Management System. The implementation arrange are amended and updated as new actions square measure introduced and as developments square measure enforced to the system. The system tracks the performance of scholars concerning their group action on a daily Background of the Study The planned system meant for automobile preciseness Incorporate is an Attendance observation system which will record the arrival and departure of the code.

The purpose of developing attendancemanagement system is to computerized the tradition way oftaking attendance. Another purpose for developing thissoftware is to generate the report automatically at the end ofthe session or in the between of the session.The design and implementation of the system is to provide service in institute and colleges. The system is to provide comprehensive student information system and user interface is to replace the current paper records. College Staff uploads attendance, results and college notifications through a secure, online interface using android devices. All data is thoroughly reviewed and validated on the server before actual record alteration NCRISSET-2017 e-ISSN: 2456-3463 International Journal of Innovations in Engineering and Science, Vol. 2, No.6, 2017 www.ijies.net 43 occurs.

The system plans for student user interface, allowing students to access tips and tricks as provided by their seniors. All data is stored securely on SQL servers managed by the college Administrator.

The rapid progress in mobile technology has created a new area which is known as mobile learning. Mobile learning is the next generation of e-learning that leads an attractive way of knowledge delivery especially used in teaching and learning process. With development of this Android application the student preferred to use mobile devices as technology supported educational tool. This system is designed because notes dictation in the class is difficult considering semester duration, student might miss the exam and important notice displayed due to unawareness, chances of false marking of attendance is more due to more paper work done manual attendance entry, evaluation and report generation is tedious and time consuming job. In this paper basic problem of student attendance management is defined which is traditionally taken manually by faculty. One alternative to make student attendance system automatic is provided by Computer Vision. In this paper we review the various computerized system which is being developed by using different techniques. Based on this review a new approach for student attendance recording and management is proposed to be used for various colleges or academic institutes. This mobile application will require connecting to the internet through Wi-Fi (Wireless Fidelity) technology or through GPRS (General Packet Radio Service). Lecturers will first have to sign up for this and then they can take attendance any time they wish by first logging in with the help of a smartphone to the server. After attendance has been taken lecturer will send it over to server via GPRS. The lecturers can also enroll new students, delete information about a particular student, modify some information etc.

Vishwakarma R Ganesh , “Android College Management System” , International Journal of Advanced Research in Computer Engineering & Technology (IJARCET) Volume 5, Issue 4, pp. 882-885, 2016. In this paper, the researcher has advanced an android utility so one can be useful in college management system. In his system students can view results the use of android telephones. The statistics has been saved at college server. The faculty can login into their college account through the app itself and update the academic result. On this system, students have clean get right of entry to for viewing the marks, furnished their authentications are correct and they're now not approved to alternate/replace the marks. This system has

modules: 1.scholar 2.admin. Within the student's module, students need to sign up their roll no, college registration number & their name. Admin module maintains the student's internal marks. In case of natural calamities such as floods, and many others notification to students may be sent from admin workplace via app at once. Any new notice for a selected semester may be uploaded by way of professor via software notifying to respective semester students. Application also consists of logic to aid above stated facilities to its students, but if the man or woman downloading the software isn't always a student however a candidate who has finished HSC and wants to know about the college then he can view the commercial of the college. Senior college toppers can also proportion their tips and tricks with different college students through chat interface. Student's attendance is likewise monitored through the software. The utility gives reliability, time savings and clean manage. It can be used as a base for growing and enhancing applications for viewing effects, monitoring attendance for faculties or any place of job. This system provides a brand new way of computing and showing operations with responsive and attractive consumer-interface. In the last few years due to improvement of technology education system in India has developed. Smart Class, video conferencing is some of the examples of modern trends in educational system. Student Attendance Management System is an android based application which helps the institute to move forward, fulfill their vision accomplish their goals. It generates the attendance of the student on basis of their presence in class. It is maintained on the daily basis of their attendance. The staffs will be provided with the separate username & password to take the student's status. It helps the teacher to take attendance through their smart phone and to keep the record of the attendance in their pocket for any time use.

Aishwarya Tamboli, Priti Shinde, Pravin Pariskar, "Institute Administration Automation and Student Database Management System", International Journal of Advance Research, Ideas and Innovations in Technology, Volume 3, Issue 2, pp. 921-925, 2017. These researchers have developed a web based utility to automate the administration methods of an academic institute and successfully and efficaciously. The application permits the college staff to go into students' data in the system which generates a completely unique ID for each student at the time of admission. The staff manages the students' marks, fee information, personal data and all other academic

records which is normally accomplished manually. This ID is used to reference the student in all the capabilities of this software. For the reason that system is automated, there may be infrequently any room left for human error, hence minimizing any potential complications in entering records and preserving statistics

3. PurviSankhe, HardikPunamiya, Vatsal Prasad, Raj Shrivastav, "Android Application for College Management System", International Journal for Scientific Research & Development| Vol. 2, Issue 02, pp. 676-678, 2014. In this research work, researchers have evolved an android application for college management system. Mobile technology has delivered a brand new environment among students and teachers that can be exploited and be used to enhance the getting to know process. This system improves interactivity & accessibility, and affords convenience in the learning system. This utility can be prolonged with numerous contents together with attendance module. The various functions within the application like notice board & student queries also can be extended inside the same manner.

An Android primarily based group action Management System may be a package answer for observation the group action of the students. teachers within the Asian country square measure to put forward an observation system to notice the person's presence or absence category. The Sensor can discover the human identity card, once they enter the class room. Warton's category of instance, make use of the package which mechanically determines the code of who didn't attend the categories and this can be noted. An group action management system is a time based web that discovers as a computerised information. An attendance identifying system maintains the day to day details of a human presence and points them to the faculty.

System can be able to sort the group action Management system's information is the android app that contains e-files and few person's details. Common group action options and group action observation option contains a human initial, address, signal, folks mobile variety, Roll variety etc. Arrange is developed for support of the strategic arrangement of the group action Management System. The arrange implements are amended and are updated as new moves square measure and as growth square measure enforced to the

system. The system monitors the performance of scholars concerning the group action on a day-to-day basis of their presence. This system is meant for automobile preciseness whereas incorporate is an student observation system which will record the details of arrival and departure of the student. The purpose of developing attendancemanagement system is to computerized the tradition way oftaking attendance. Another purpose for developing thissoftware is to generate the report automatically at the end ofthe session or in the between of the session.The design and implementation of the system is to provide service in institute and colleges. The system is to provide comprehensive student information system and user interface is to replace the current paper records. College Staff uploads attendance, results and college notifications through a secure, online interface using android devices. All data is thoroughly reviewed and validated on the server before actual record alteration NCRISSET-2017 e-ISSN: 2456-3463 International Journal of Innovations in Engineering and Science, Vol. 2, No.6, 2017 www.ijies.net 43 occurs. The system plans for student user interface, allowing students to access tips and tricks as provided by their seniors. All data is stored securely on SQL servers managed by the college Administrator.

Vishwakarma R Ganesh , “Android College Management System” , International Journal of Advanced Research in Computer Engineering & Technology (IJARCET) Volume 5, Issue 4, pp. 882-885,2016. In this paper, the researcher has advanced an android utility so one can be useful in college management system. In his system students can view results the use of android telephones. The statistics has been saved at college server. The faculty can login into their college account through the app itself and update the academic result. On this system, students have clean get right of entry to for viewing the marks, furnished their authentications are correct and they're now not approved to alternate/replace the marks. This system has modules: 1.scholar 2.admin. Within the student"s module, students need to sign up their roll no, college registration number & thier name. Admin module maintains the student"s internal marks.The purpose of developing attendancemanagement system is to computerized the tradition way oftaking attendance. Another purpose for developing thissoftware is to generate the report automatically at the end ofthe session or in the between of the session.The design and implementation of the system is to provide service in

institute and colleges. The system is to provide comprehensive student information system and user interface is to replace the current paper records.

One alternative to make student attendance system automatic is provided by Computer Vision. In this paper we review the various computerized system which is being developed by using different techniques. Based on this review a new approach for student attendance recording and management is proposed to be used for various colleges or academic institutes. This mobile application will require connecting to the internet through Wi-Fi(Wireless Fidelity) technology or through GPRS(General Packet Radio Service).Lecturers will first have to sign up for this and then they can take attendance any time they wish by first logging in with the help of a smartphone to the server. After attendance has been taken lecturer will send it over to sever via GPRS.The lecturers can also enroll new students, delete information about a particular student, modify some information etc.

CHAPTER 3

SYSTEM ANALYSIS AND DESIGN

3.1 Current System

In the present system all work is done on paper. The whole session attendance is stored in register and at the end of the session the reports are generated. We are not interested in generating report in the middle of the session or as per the requirement because it takes more time in calculation. So, We are not able to get employees regularity report and take necessary action on employees whenever we want because of having very time consuming process.

3.1.1 Weaknesses in Current System

Not User Friendly:

The existing system is not user friendly because the retrieval of data is very slow and data is not maintained efficiently.

Difficulty in report generating:

We require more calculations to generate the report so it is generated at the end of the session. And the employee not gets a single chance to improve their Attendance.

Manual control:

All calculations to generate report are done manually so there is greater chance of errors.

Lots of paperwork:

Existing system requires lot of paper work. Loss of even a single register/record led to difficult situation because all the papers are needed to generate the reports.

Time consuming:

Every work is done manually so we cannot Generate report in the middle of the session or as per the requirement because it is very time consuming.

3.2 Product Perspective

The product Attendances Management system is an independent product and does not depend on any other product or system. The product will automate various tasks associated with handling student details and better organizing the stored information and optimum performance, thus helping the Colleges to ensure smooth working of these processes.

We tried to implement a system that overcomes the constraints of the prevailing approach. Taking the attending on mobile phones rather than ancient approach is one discovery to property development. Doing constant work on mobile phones not solely saves our resources however additionally allows the user to urge straightforward and interactive access to the attending records of student. we tend to tried to create AN application which will facilitate the teacher to require attending of the scholars through their own mobile device. What may Pine Tree State a lot of fascinating for that. The main goal of developing the attendance management system is to computerize the tradition means of tracking attendance.

Another purpose for developing this computer code is to generate the report mechanically at the tip of the session or within the between of the session This Application is constructed for implementing the non-manual process of attendance tracking. It additionally generates the velocity of the playing attendance task simply. It also generates periodic records to keep up a check on the scholars United Nations agency square measure regular & United Nations agency aren't. a school needs to login to the system & then within the attendance choice they need to pick out applicable category, Exam and subject.

Thus currently the college needs to choose the student's name from the book in keeping with their roll range. This technique can be extremely helpful to the teacher additionally as a result of this they can generate the report. Different varieties of details and can submit them to several colleges additionally and can also be delivered to the Coordinator. Teachers can even generate duplicate list of scholars United Nations agency have attending but five hundredth or eightieth. So, this kind of numerous details are often been generated. The PC will do a lot of tasks when compared with a human .

The work then becomes simple to the workers and therefore few quantity of human resources can be saved. Correctness in Information is maintained. Correct data are often achieved among a brief span of your time information are often accessed simply. Additionally it saves a great deal of our time. information can be protected with the help of login system. Apart from this login system, unauthorised persons cannot be able to access the information .Difficulty in doing the work is often decreased by victimization.

The intention of developing attendance Management System is to computerized the tradition means of taking attendance. Another purpose for developing this software is to get the specified reports mechanically at the tip of the session or within the between of the session as they require. This project is essentially a mobile application which implies self-contained computer code runs on the system on which it's been put in beneath the user management and it'll work for a specific institute or school solely. Student details are loaded into the database based on some categories and then the particular staff takes the attendance then the student attendance is stored and percentage is calculated automatically. Then easily student attendance eligibility criteria can be known by the staff easily with less efforts and the student reports can be generated easily.

3.3 Product Functions

Our system has many types of accessing modes -

Administrator

User

Teacher

Student

3.3.1. Administrator

Administrator have rights to manage student details, add a new student, provide register number for all students, assign each student a course etc., Administrator can update his profile, and also can give help to the teachers and students.

3.3.2. User - There are two users:-

- **Student:** -Student do the login and see profile, Attendance Details etc.
- **Teacher:** -Add student, view the student details and take attendance student.

3.4 User Characteristics

This software gives access to two kinds of users.

1. Administrator

The administrators have features access to add, delete and modify information

stored in the database. **Authorized User:** Teaching staffs have access to view the data stored in the database and can update the student's attendance in the form of formatted reports. Student has access to view the data stored in the database.

3.5 Constraints

Interface is only in English, no other language option is available. User can login with his assigned username and password, no guest facilities is available.

Assumptions and Dependencies:-

We assume that the Office personnel do all the data entry based and the correct values obtained from forms and registers. We assume that the computers that will use the software will be part of the college LAN. Users with administrator access should be careful in deleting or modifying any information knowingly or unknowingly which will lead to inconsistency of the database. The end users of this software are assumed to have basic level of computer knowledge i.e. point and click.

3.6 System Analysis

Analysis can be defined as breaking up of any whole so as to find out their nature, function etc. It defines design as to make preliminary sketches of; to sketch a pattern or outline for plan. To plan and carry out especially by artistic arrangement or in a skillful way. System analysis and design can be characterized as a set of techniques and processes, a community of interests, a culture and an intellectual orientation.

This system manages to the analysis of the report creation and develops manual entry of the student attendance. First design the students entry form, staff allocation and time table allocation forms. This project will help the attendance system for the department calculate percentage and reports for eligibility criteria of examination. The application attendance entry system will provide flexible report for all students. Existing system is a manual entry for the students. Here the attendance will be carried out in the hand written registers. It will be a tedious job to maintain the record for the user. The human effort is more here. The retrieval of the information is not as easy as the records are maintained in the hand written registers. This application requires correct feed on input into the respective field. Suppose the wrong inputs are entered, the application resist to

work. so the user find it difficult to use.

3.7 Proposed System

To overcome the drawbacks of the existing system, the proposed system has been evolved. This project aims to reduce the paper work and saving time to generate accurate results from the student's attendance. The system provides with the best user interface. The efficient reports can be generated by using this proposed system. Attendance Management System basically has two main modules for proper functioning:-First module is admin which has right for creating space for new batch. Any entry of new faculty, Updating in subject if necessary, and sending notice. Second module is handled by the user which can be a faculty or an operator. User has a right of making daily attendance, generating report. An Android Based Attendance Management System is a software solution for monitoring the attendance of the students. Academics in the India are to introduce a monitoring system to check when students attend or miss class. Sensors will detect student's identification card, when they enter the lecture theatres. Warton classes for example, makes use of software that automatically determined if the student didn't attend their classes and this will be reflected.

An attendance management system serves as a time log that is set up as a computerized database. An attendance monitoring system maintains a daily record of a person's arrival and departure time from work or college. System Type The attendance Management system database is an application that contains electronic files about a person's history. Common Attendance Features An attendance monitoring system contains a person's name, address, Phone number, parents mobile number, Roll number etc. plan has been developed to support the strategic plan of the Attendance Management System. The implementation plan will be amended and updated as new actions are introduced and as developments are implemented to the system. The system tracks the performance of Students regarding their attendance on a daily basis Background of the Study The proposed system intended for Auto Precision Incorporate is an Attendance Monitoring system that will record the arrival and departure of the Student. The existing system has a web or desktop based application for student attendance management and the faculty must take the attendance and later

should enter the attendance details into the server manually.

Advantages of Proposed System -

- It is trouble-free to use.
- It is a relatively fast approach to enter attendance is highly reliable, approximate result from user Best user Interface and efficient reports.

3.8. Feasibility Study

Feasibility analysis begins once the goals are defined. It starts by generating broad possible solutions, which are possible to give an indication of what the new system should look like. This is where creativity and imagination are used. Analysts must think up new ways of doing things- generate new ideas. There is no need to go into the detailed system operation yet. The solution should provide enough information to make reasonable estimates about project cost and give users an indication of how the new system will fit into the organization. It is important not to exert considerable effort at this stage only to find out that the project is not worthwhile or that there is a need significantly change the original goal. Feasibility of a new system means ensuring that the new system, which we are going to implement, is efficient and affordable. There are various types of feasibility to be determined. They are-

3.8.1 . Economical Feasibility

Development of this application is highly economically feasible. The only thing to be done is making an environment with an effective supervision. It is cost effective in the sense that has eliminated the paper work completely. The system is also time effective because the calculations are automated which are made at the end of the month or as per the user requirement.

3.8.2 Technical feasibility

The technical requirement for the system is economic and it does not use any other additional Hardware and software. Technical evaluation must also assess whether the existing systems can be upgraded to use the new technology and whether the organization has the expertise to use it. Install all upgrades framework into the .Net package supported windows based application. This application depends on Microsoft office and intranet service, database. Enter their attendance and generate report to excel sheet.

3.8.3. Operational Feasibility

The system working is quite easy to use and learn due to its simple but attractive interface. User requires no special training for operating the system. Technical performance include issues such as determining whether the system can provide the right information for the Department personnel student details, and whether the system can be organized so that it always delivers this information at the right place and on time using intranet services.

3.9 System Requirements

3.9.1 Hardware Requirements

RAM	2 GB
Hard Disk	500 GB
Processor	Intel core i3

3.9.2 Software Requirements

Operating System:	Windows 10
Front Design:	Visual Studio 2008
Front-End Language:	VB.NET
Back-End Language:	Mysql

3.9.3. Functional Requirements

Attendance Management System involves the following functions - Easily track attendance information of students. Quickly produce attendance bulletin.

3.9.4 Non-Functional Requirements

Easy tracking of records and updating can be done. All the requirements relating to performance characteristics of the system are specified in the section below. There are two types of requirements.

Static Requirements

These requirements do not impose any constraints on the execution characteristics of the System. They are:

Number of Terminals

The software makes use of an underlying database that will reside at the server, while the front end will be available online to the administrative and departmental computers as well as students and teachers.

Number of Users

The number of users may vary, as this software finds applications in almost all department of the organization.

Dynamic Requirements

These specify constraints on the execution characteristics of the system. They typically include response time and throughput of the system. Since these factors are not applicable to the proposed software, it will suffice if the response time is high and the transactions are carried out precisely and quickly.

Reliability

The software will not be able to connect to the centralized database in the event that the college LAN fails or in the event of the server being down due to a hardware or software failure.

Availability

The software will be available only to authorized users of the colleges like teachers to mark the students' attendance, student to view their enrolled course, admin to add an update students records.

Security

The security requirements deal with the primary security. The software should be handled only by the administrator and authorized users. Only the administrator has right to assign permission like creating new accounts and generating password. Only authorized users can access the system with username and password.

Maintainability

Backups for database are available.

Portability

The Software is a windows-based application and is built in VB.Net and MYSQL so it is platform independent and is independent of operating system.

Design Constraints

This software provides security. The login form prevents the system from being misused by unauthorized users. Only an authorized operator will be granted rights to modify as per requirements. This software is also reliable and fault tolerant. The system developed is designed to handle invalid inputs. Since reliability is major area of concern the system has a backup to avoid data loss. The user should know the programming language very well that is used to develop software.

3.10. Software Description

3.10.1 Visual Studio 2008

Microsoft Visual Studio is an Integrated Development Environment (IDE) from Microsoft . It can be used to develop console and graphical user interface applications along with Windows form, applications, web sites, web applications, and web services in both native code together with managed code for all platforms supported by Microsoft Windows, Windows Mobile, Windows CE, .NET Framework, .NET Compact Framework and Microsoft Silver light.

Visual Studio includes a code editor supporting IntelliSense as well as code refactoring. The integrated debugger works both as a source-level debugger and a machine-level debugger. Other built-in tools include a forms designer for building GUI applications, web designer, class designer, and database schema designer. It allows plug-ins to be added that enhance the functionality at almost every level - including adding support for source control systems (like Subversion and Visual SourceSafe) to adding new toolsets like editors and visual designers for domain-specific languages or toolsets for other aspects of the software development lifecycle (like the Team Foundation Server client: Team Explorer). Visual Studio functions as the code editing area, form designer, code validator, compiler and library browser for a software development project. It supports languages by means of language services, which allow any programming language to be supported (to varying degrees) by the code editor and debugger, provided a language-specific service has been authored. In this course we will be exploring installation, initialization, and basic use of the IDE for the purpose of writing

VB.NET software.

Fast & Smart Code Editing

The Visual Studio indents lines, matches words and brackets, and highlights source code syntactically and semantically. It lets you easily refactor code, with a range of handy and powerful tools, while it also provides code templates, coding tips, and code generators.

Easy & Efficient Project Management

Keeping a clear overview of large applications, with maximum numbers of folders and files, and maximum of lines of code, is a daunting task. Visual Studio provides different views of your data, from multiple project windows to helpful tools for setting up your applications and managing them efficiently, letting you drill down into your data quickly and easily, while giving you versioning tools via Subversion, Mercurial, and integration out of the box.

When new developers join your project, they can understand the structure of your application because your code is well-organized.

3.10.2 *MySql*

MySQL is a Relational Database Management System (RDBMS). RDBMS means R stands for Relational. DB stands for Database, a repository for the information store. The data in a database is organized into tables, and each table is organized into rows and columns. Each row in a table is called a record. A record may contains several pieces (called fields) of information, and each column in a table is known as a field. MS stands for Management System, the software that allows you to insert, retrieve, modify, or delete records.

R stands for Relational, indicates a particular kind of DBMS that is good at relating information stored in one table to information stored in another table by looking for elements common to each of them. Relational DBMS has the advantage of efficient storage, and retrieval mechanisms for data, and uses normalization process .

Features-

Speed

Of course, the speed at which a server side program runs depends primarily on the server hardware. Given that the server hardware is optimal, MySQL runs very fast. It supports clustered servers for demanding applications.

Ease of use

MySQL is a high-performance, relatively simple database system. From the beginning, MySQL has typically been configured, monitored, and managed from the command line. However, several MySQL graphical interfaces are available as described below:

MySQL Administrator: This tool makes it possible for administrators to set up, evaluate, and tune their MySQL database server. This is intended as a replacement for `mysqladmin`.

MySQL Query Browser: Provides database developers and operators with a graphical database operation interface. It is especially useful for seeing multiple query plans and result sets in a single user interface.

Configuration Wizard - Administrators can choose from a predefined list of optimal settings, or create their own.

MySQL System Tray: Provides Windows-based administrators a single view of their MySQL instance, including the ability to start and stop their database servers.

Cost – MySQL is available free of cost. MySQL is a "Open Source" database. MySQL is part of LAMP (Linux, Apache, MySQL, PHP / Perl / Python) environment, a fast growing open source enterprise software stack. More and more companies are using LAMP as an alternative to expensive proprietary software stacks because of its lower cost, reliability, and documentation.

Query Language Support - MySQL understands standards based SQL (Structured Query Language). **Capability** - Many clients can connect to the server at the same time. Clients can use multiple database simultaneously. You can access MySQL using several interfaces such as command-line clients, Web browsers. **Connectivity and security** - MySQL is fully networked, and database can be accessed from anywhere on the Internet, so you can share your data with anyone, anywhere. The connectivity could be achieved with Windows programs by using ODBC drivers. By using the ODBC connector to MySQL, any ODBC-aware client application (for example, Microsoft Office, report writers, Visual Basic) can connect to MySQL.

Portability - MySQL runs on many varieties of UNIX, as well as on other non-UNIX systems, such as Windows and OS/1. MySQL runs on hardware from home PCs to high-end server. MySQL can be installed on Windows XP, Windows Server 1003, Red Hat Fedora Linux, Debian Linux, and others.

MySQL is Open Source Software - Open Source means that it is possible for anyone to use and modify. Anybody can download MySQL from the Internet and use it without paying anything. Anybody so inclined can study the source code and change it to fit their needs. MySQL uses the GPL (GNU General Public License) to define what you may and may not do with the software in different situations. If you feel uncomfortable with the GPL or need to embed MySQL into a commercial application you can buy a commercially licensed version from us.

Why use MySQL - MySQL is very fast, reliable, and easy to use. If that is what you are looking for, you should give it a try. MySQL also has a very practical set of features developed in very close cooperation with our users. MySQL was originally developed to handle very large databases much faster than existing solutions and has been successfully used in highly demanding production environments for several years. Though under constant development, MySQL today offers a rich and very useful set of functions. The connectivity, speed, and security make MySQL highly suited for accessing databases on the Internet.

The technical features of MySQL- MySQL is a client/server system that consists of a multi-threaded SQL server that supports different back ends, several different client programs and libraries, administrative tools, and several programming interfaces. We also provide MySQL as a multi-threaded library which you can link into your application to get a smaller, faster, easier to manage product. MySQL has a lot of contributed software available.

3.11 Input Design

Input design is part of overall system design that requires special attention designing input data is to make the data entered easy and free from **errors**. The input forms are designed using the controls available in .NET framework.

Input design is the process of converting the user originated inputs to a computer based format. A system user interacting through a workstation must be able to tell the system whether to accept the input to produce reports. The

collection of input data is considered to be most expensive part of the system design. Since the input has to be planned in such a manner so as to get relevant information, extreme care is taken to obtain pertinent information

This project first will entered to the input of allocation forms it will be created on student details form and subject entry form, time table form .it will helps to calculate subject wise attendance system.

This system manages to the analysis of the report creation and develops manual entry of the student attendance. First design the students entry form , staff allocation and time table allocation forms. This project will helps the attendance system for the department calculate percentage and reports for eligibility criteria of examination .The application attendance entry system will provide flexible report for all students.Existing system is a manual entry for the students. Here the attendance will be carried out in the hand written registers. It will be a tedious job to maintain the record for the user. The human effort is more here. The retrieval of the information is not as easy as the records are maintained in the hand written registers.This application requires correct feed on input into the respective field. Suppose the wrong inputs are entered, the application resist to work. so the user find it difficult to use.

3.12. Output Design

Output design this application “**Student Attendance management system**” generally refers to the results and information that are generated by the system for many end-users; output is the main reason for developing the system and the basis on which they evaluate the usefulness of the application.

The output is designed in such a way that it is attractive, convenient and informative. Forms are designed with various features, which make the console output more pleasing.

As the outputs are the most important sources of information to the users, better design should improve the system’s relationships with us and also will help in decision making. Form design elaborates the way output is presented and the layout available for capturing information.

One of the most important factors of the system is the output it produces.

This system refers to the results and information generated. Basically the output from a computer system is used to communicate the result of processing to the user. Attendance management system to show the report subject wise attendance maintaining by staffs. Taken as a whole report obtains on a administrator privileges only.

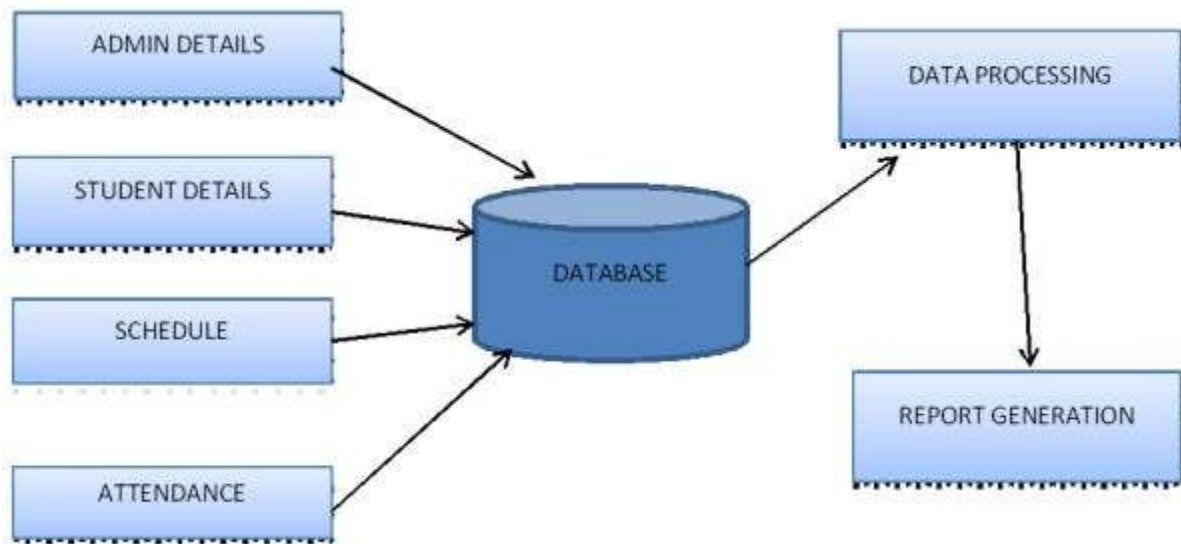


Fig 3.1 Block Diagram

3.13 Problem Definition

This system developed will reduce the manual work and avoid redundant data. By maintaining the attendance manually, then efficient reports cannot be generated. The system can generate efficient weekly, consolidate report based on the attendance. As the attendances are maintained in registers it has been a tough task for admin and staff to maintain for long time. Instead the software can keep long and retrieve the information when needed.

3.14 Project Overview

Attendance Management System basically has two main modules for proper functioning Admin module is has rights for creating any new entry of faculty and student details. User has a rights of making daily attendance, generating report. Attendance report can be taken by given details of student details, date, and class.

As it becomes impossible to write a sentence without being able to write words properly and with correct grammar and punctuation marks, hence a pre-requisite essential in every scenario. Our project is no different when it comes to

pre-requisites. It requires the user to create a csv file which would contain the student details in the following format (roll no., stream, year, sem, sec, name). The csv file can easily be created if we have an MS-Excel file of the same format which can easily be saved to csv format of comma separated delimiter. The saved csv file containing the student details can then be kept back to the Android device which would be used when we pick the students for the particular subject. This can be considered as one of the basic pre-requisite of our project.

After the application has been installed in the android device the following steps are to be implemented are Navigation screen appears for the teacher registration and login, after the splash screen has been navigated to the present screen. The teacher shall then register with a proper user name and password which they must remember for further login. Next the teacher needs to login from the login or register screen, by pressing the login button and providing the correct credentials without which they would not be able to log-in to the application. After successful login the teacher would be navigated to the "Select or Add Subject Screen", from where they must first add the corresponding subjects which they desire to teach by clicking the "ADD SUBJECT" button at the bottom of the screen. The "Add Subject" screen requires three parameters namely: - subject name, subject code and the corresponding section where they must teach. A "BROWSE" button is provided below to choose the students for the section and finally a „DONE" button to save the changes made. On successful entry of the above task, the entered subject is seen in every screen namely - "Select or Add Subject",

"TotalAttendance" and "DatewiseAttendance". Now the attendance register can be accessed from the "Select or Add Subject Screen" for the previously added subjects. Now accordingly attendance can be given for the present date or any previous date, or can be checked in the below two options of "Total Attendance" and "Date-wise Attendance".

3.15 Module Description

The system should be designed in such a way that only authorized people should be allowed to access some particular modules. The records should be modified by only administrators and no one else. The user should always be in control of the application and not the vice versa. The user interface should be consistent so that the user can handle the application with ease and speed. The application should be visually, conceptually clear.

Student

Details

In this module deals with the allocation of roll no and personal details for new batch. It will generate of personal details and academic details of the students.

Teacher Details

It helps to allot the subject and the subject code to the particular staffs. It provides the facility to have a user name and password to the staffs.

Report details

Report can be taken by daily, weekly and consolidate. Weekly report get all hour details of attendance starting date to ending date and display the status Consolidate report get all student attendance details starting date to ending date status help for the eligibility criteria of the student to attend the examination. It assists the staff to mark attendance to the students for their subject. This will authenticate the staff before making the entry. Weekly report get details of attendance from starting date to ending date and display the status. Consolidate report get all student attendance details from starting date to ending date status help for the eligibility criteria of the student to attend the examination.

Administrator: The Admin module is employed to administrator to login into it and access the student information, through this module we can watch and manage the entire system, with this module we can perform operations like insertion, updating and deleting.

Module(Login): The login module is employed to the student for signing in to see their profile and know their percentage of attendance.

Scheduler : The scheduler module is employed for the use of administrator where the admin can schedule their class and get prior notification at the particular time when they have class.

Attendance : The attendance module is employed to the admin for marking the student attendance i.e., a tick is marked if the student is present or the tick is not marked if the student is absent.

Student Profile : In this student profile module, student details like name, class, department, section and also their attendance percentage is visible if their administration number is entered.

CHAPTER 4

RESULTS AND DISCUSSIONS

4.1 Screenshots

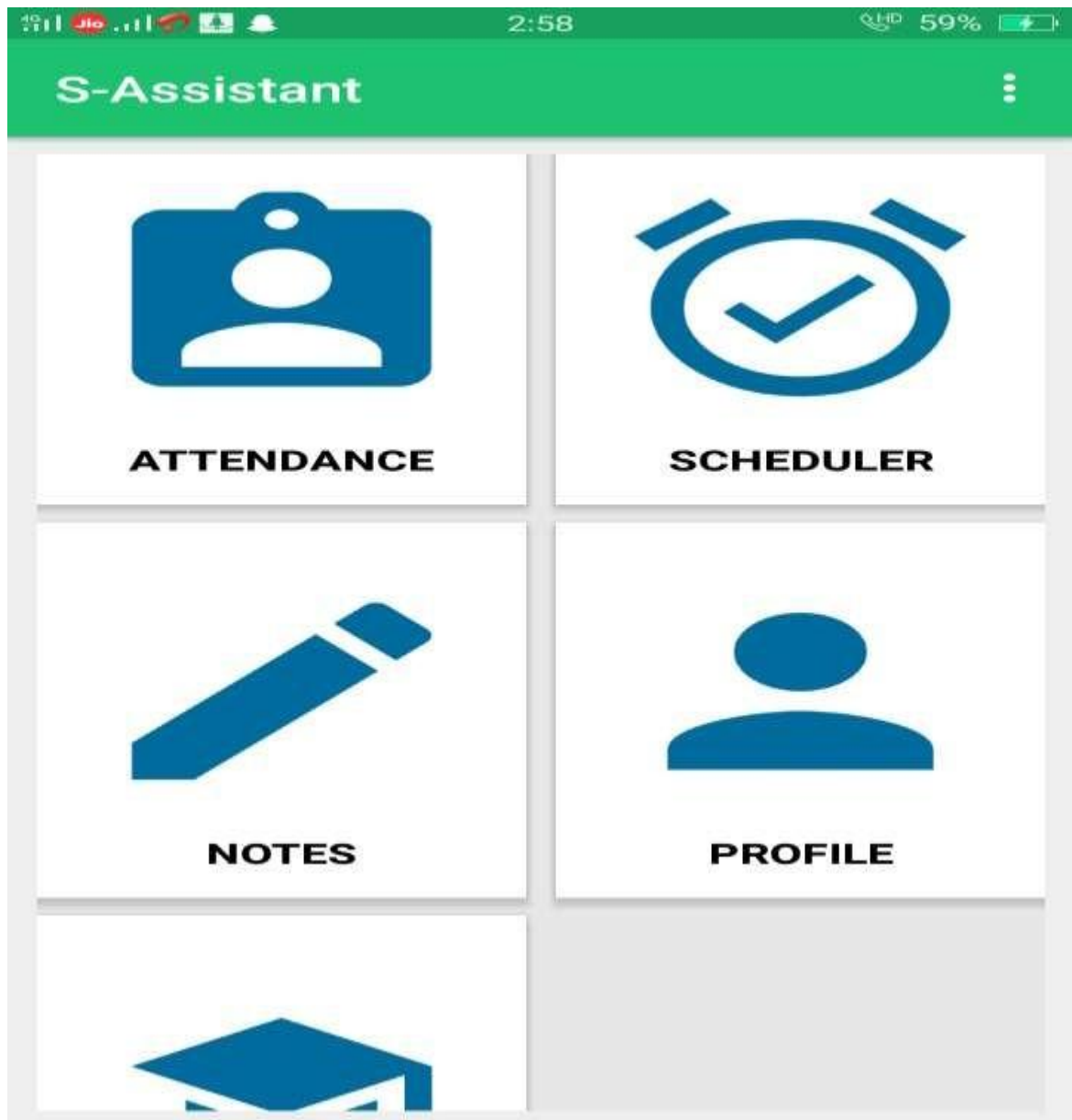


Fig 4.1 Home Page

The above picture is attendance management system's Home page. Home page consists of all the accessible options like Attendance, Scheduler, Notes, Profile and CGPA Calculator.

The screenshot shows a mobile application interface for 'S-Assistant'. At the top, there is a green header bar with a back arrow on the left and the text 'S-Assistant' in the center. Below the header, the main content area is white and contains a registration form. The form starts with a dropdown menu showing 'S1 COMPUTER SCIENCE' with a downward arrow. Below this are four text input fields, each with a label and a horizontal line: 'Name' (with a red vertical line on the left), 'Roll Number', 'Admission Number', and 'Contact'. At the bottom of the form is a large green rectangular button with the word 'SAVE' in white capital letters. The top of the screen shows a status bar with various icons and the time '2:59'.

Fig 5.2 Student Registration

Student Registration form will be opened if we click on profile. If our profile already exists no need of registration. If our profile do not exist then we need to register the student by giving his/her academic details in order to maintain the attendance.

The screenshot shows the S-Assistant app interface. At the top, there is a green header bar with a back arrow and the text "S-Assistant". Below this, the day "MONDAY" is displayed with a dropdown arrow. Underneath, "S1 COMPUTER SCIENCE" is shown with another dropdown arrow. A text input field labeled "Subject Name" is present. A large pink banner displays the time "2:58" with "AM" and "PM" options. Below the banner is a clock face with numbers 1 through 12. The number "2" is highlighted with a pink circle, and a line points from the center of the clock to it. At the bottom, there is a green bar with the word "SAVE" in white capital letters.

Fig 4.3 Setting the Schedule

The Scheduler is used by the staff to record their class timetables. If they give their timetable to scheduler. When it is time for the class it gives a reminder or a notification.

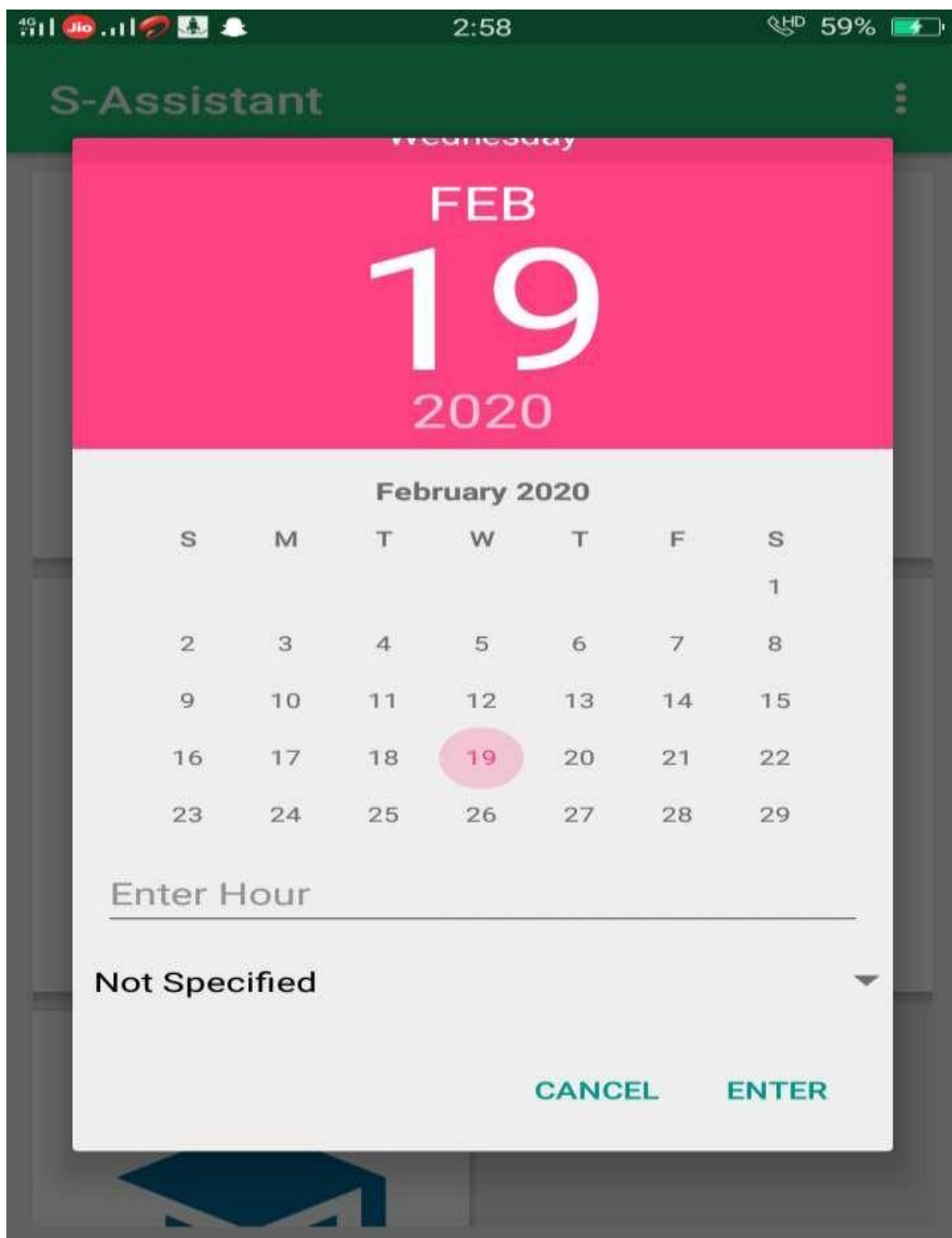


Fig 4.4 Enter the Hourly Attendance

This is Attendance page where the staff can enter the hourly attendance of a student by entering which hour and at what time.

Personal Hotspot : 1 connections, Used 3.45M

←

S-Assistant

S1 COMPUTER SCIENCE

LOAD

Rahul (36110465)

☒

SAVE

Fig 4.5 Entering the Attendance

This is how the staff can mark the attendance. If student is present then a tick is marked . If the student is absent then it is left empty by not marking the tick.

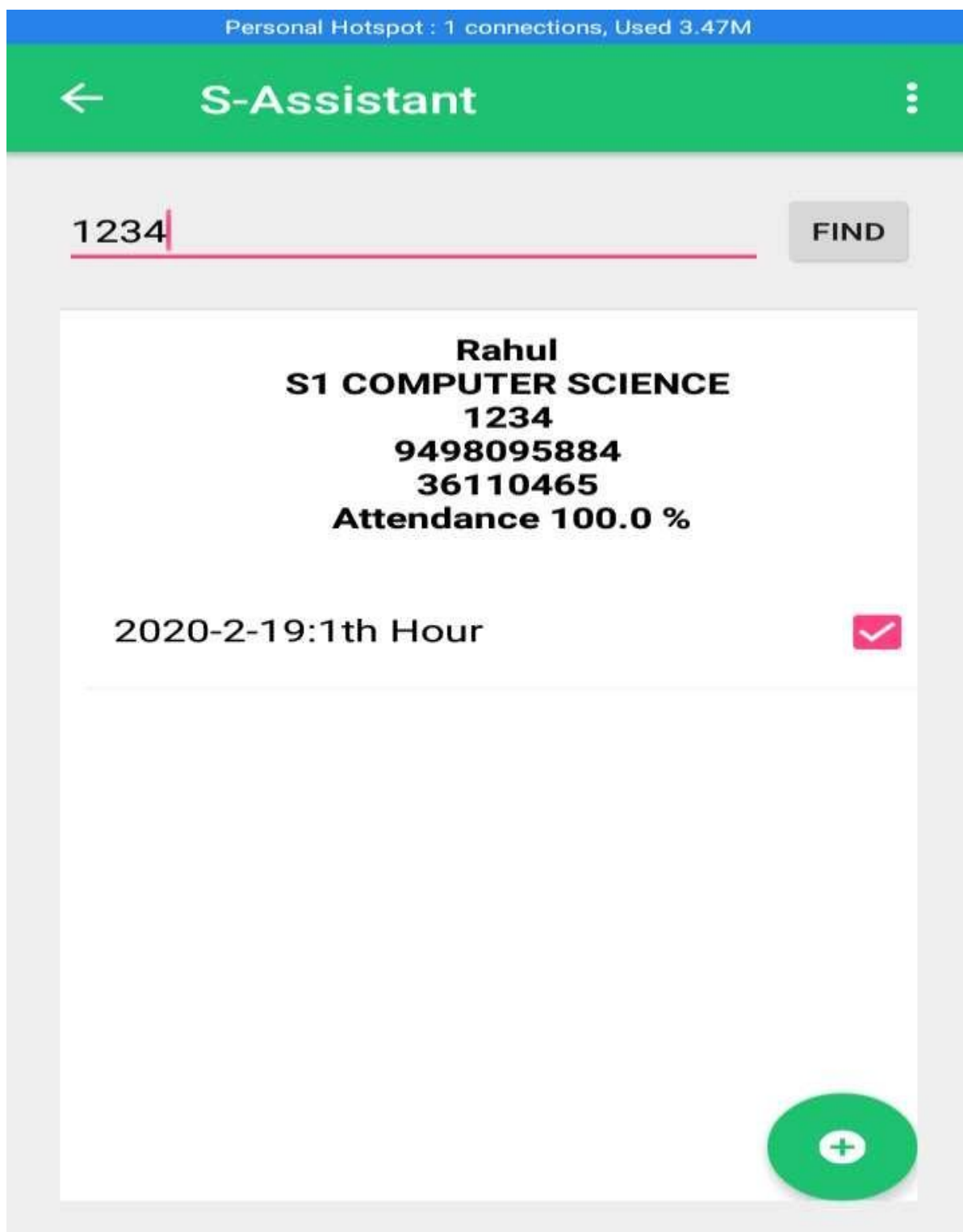


Fig 4.6 Checking Attendance Percentage

This is the profile page where a student/staff can know the student's attendance percentage by entering their own registration number.

CHAPTER 5

CONCLUSION

5.1 Conclusion

This application is all about accessing the details of the student and generating the information to the organization. This app is all about developing an Mobile Application which services to mark the student attendance in that particular time. Now-a-days, Android phone is playing a vital role in the human life. So, this method will be more helpful for all to improve their attendance. This method will help to maintain the attendance of a person at their working place. This will reduce the late attendance, loss of pay and permissions. This mobile app provides user to put the attendance through interactive and easy process. It is helpful to the staff members as the details of the students and their attendance percentage can be easily maintained and stored for their use in future. This project offers user to enter the attendance through simple and interactive forms. This is very helpful for the members(staff) to keep and maintain the information about their attendance easily. Attendance percentage can also be calculated easily. Our future enhancements can be extended by adding interesting features like capturing students id using a camera like biometric process. The system has reached a steady state where all bugs have been eliminated. The system is operated at a high level of efficiency and all the teachers and user associated with the system understands its advantage. The system solves the problem. It was intended to solve as requirement specification.

4.2 Scope for future development

The project has a very vast scope in future. The project can be implemented on intranet in future. Project can be updated in near future as and when requirement for the same arises, as it is very flexible in terms of expansion. With the proposed software of database Space Manager ready and fully functional the client is now able to manage and hence run the entire work in a much better, accurate and error free manner.

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APPENDICES

A) PLAGIARISM REPORT

Turnitin Originality Report

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ANDROID BASED ATTENDANCE MANAGEMENT SYSTEM Abstract: Over many years of manual attendance management had been carried across lot of establishments in academics there will be some issues like loss of data, error during attendance marking. The system maintains the information residing on a server. It does the analysis mechanically. Managing attendance manually is an ancient approach which is a

B) JOURNAL PAPER

ANDROID BASED ATTENDANCE MANAGEMENT SYSTEM

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Abstract:

Over many years of manual attendance management had been carried across lot of establishments in academics there will be some issues like loss of data, error during attendance marking. The system maintains the information residing on a server. It does the analysis mechanically. Managing attendance manually is an ancient approach which is a cumbersome method. The person must maintain the attendance record in registers and files. The most important matter with this approach is that it needs many papers that results a loss in the part of our non-renewable natural resources. So, to overcome the issues of manual report attendance, we developed “Android based Attendance Management System” using Android Managing the attendance through mobile phones, offers many advantages like this becomes the paperless system due to which non-renewable resources can be saved a lot and lot and human errors when marking the attendance can be reduced, attendance of a particular student is recorded daily, weekly or monthly and attendance percentage is calculated automatically through which students attendance eligibility criteria can be known without efforts. Communication between staff and also the parent is additionally a crucial issue that ought to even be thought of, because parent will solely get the knowledge regarding their ward once when they interact with college. So, we tend to additionally tried to bring the system that permits parent to receive the knowledge of their ward of regularity day to day.

Keywords

Attendance system, Android studio, Smartphone.

1. INTRODUCTION

In present situation, managing and maintaining the human information is difficult work for any educational establishment. The particular student tutorial information contains watching student performance and their progress sporadically that seems to be the heavy task for lecturers to take and update the progress of subjects in several categories. Similarly, way of taking the manual attendance is also a tedious work and errors also can be generated during report generation. So as to cut back the non-automation work and whereas to attain additional potency in management of student information, an android application which can be used in android phones is created using an easy approach with less number of difficult tasks. This system can save and retrieve and also sends the information to the particular

person or student. Using this application, Staff can simply take the attendance and generates the report of a student.

System of Attendance management is a android application which is developed for recording day to day student attendance. It facilitates in accessing the attendance information of specific selected person in each particular category like department, section etc. Data can be sorted by the controller, who can be able to provide the teacher for a specific category. The current method can facilitates to provide the attendance eligibility rule for a student. It generally comprises of 4 modules – They are user, authority module, net service module, attendance building process and show information concerned to that person. It is a framework where students attendance can be taken by authorities based on hourly, daily, weekly or monthly basis. Attendance is taken daily on every operating day whether it's faculty, faculty of the other establishment and during this method each establishment wastes a lot of paper only for keeping the record. With such tiny reasons, our natural resources square measure depleting at the big rate and it will not be possible that our descendants that they don't able to get those resources.

2. LITERATURE SURVEY

An Android primarily based group action Management System may be a package answer for observation the group action of the students. teachers within the Asian country square measure to put forward an observation system to notice the person's presence or absence category. The Sensor can discover the human identity card, once they enter the class room. Warton's category of instance, make use of the package which mechanically determines the code of who didn't attend the categories and this can be noted. An group action management system is a time based web that discoveres as a computerised information. An attendance identifying system maintains the day to day details of a human presence and points them to the faculty.

System can be able to sort the group action Management system's information is the android app that contains e-files and few person's details. Common group action options and group action observation option contains a human initial, address, signal, folks mobile variety, Roll variety etc. Arrange is developed for support of the strategic arrangement of the group action Management System. The arrange implements are amended and are updated as new moves square measure and as growth square measure enforced to the system. The system monitors the performance of scholars concerning the group action on a day-to-day basis of their presence. This system is meant for automobile preciseness whereas incorporate is an student observation system which will record the details of arrival and departure of the student.

3. PROPOSED SYSTEM

We tried to implement a system that overcomes the constraints of the prevailing approach. Taking the attending on mobile phones rather than ancient approach is one discovery to property development. Doing constant work on mobile phones not solely saves our resources however additionally allows the user to urge

straightforward and interactive access to the attending records of student. we tend to tried to create AN application which will facilitate the teacher to require attending of the scholars through their own mobile device. What may Pine Tree State a lot of fascinating for that. The main goal of developing the attendance management system is to computerize the tradition means of tracking attendance.

Another purpose for developing this computer code is to generate the report mechanically at the tip of the session or within the between of the session This Application is constructed for implementing the non-manual process of attendance tracking. It additionally generates the velocity of the playing attendance task simply. It also generates periodic records to keep up a check on the scholars United Nations agency square measure regular & United Nations agency aren't. a school needs to login to the system & then within the attendance choice they need to pick out applicable category, Exam and subject.

Thus currently the college needs to choose the student"s name from the book in keeping with their roll range. This technique can be extremely helpful to the teacher additionally as a result of this they can generate the report. Different varieties of details and can submit them to several colleges additionally and can also be delievered to the Coordinator. Teachers can even generate duplicate list of scholars United Nations agency have attending but five hundredth or eightieth. So, this kind of numerous details are often been generated. The PC will do a lot of tasks when compared with a human .

The work then becomes simple to the workers and therefore few quantity of human resources can be saved. Correctness in Information is maintained. Correct data are often achieved among a brief span of your time information are often accessed simply. Additionally it saves a great deal of our time. information can be protected with the help of login system. Apart from this login system, unauthorised persons cannot be able to access the information .Difficulty in doing the work is often decreased by victimization.

The intention of developing attendance Management System is to computerized the tradition means of taking attendance. Another purpose for developing this software is to get the specified reports mechanically at the tip of the session or within the between of the session as they require. This project is essentially a mobile application which implies self-contained computer code runs on the system on which it's been put in beneath the user management and it'll work for a specific institute or school solely. Student details are loaded into the database based on some categories and then the particular staff takes the attendance then the student attendance is stored and percentage is calculated automatically. Then easily student attendance eligibility criteria can be known by the staff easily with less efforts

and the student reports can be generated easily.

Feasibility Study-

1. Economic Feasibility: The proposed system is economically feasible as the system of attendance management becomes computerised as it saves paper and money at a time. This system also saves lot of time.

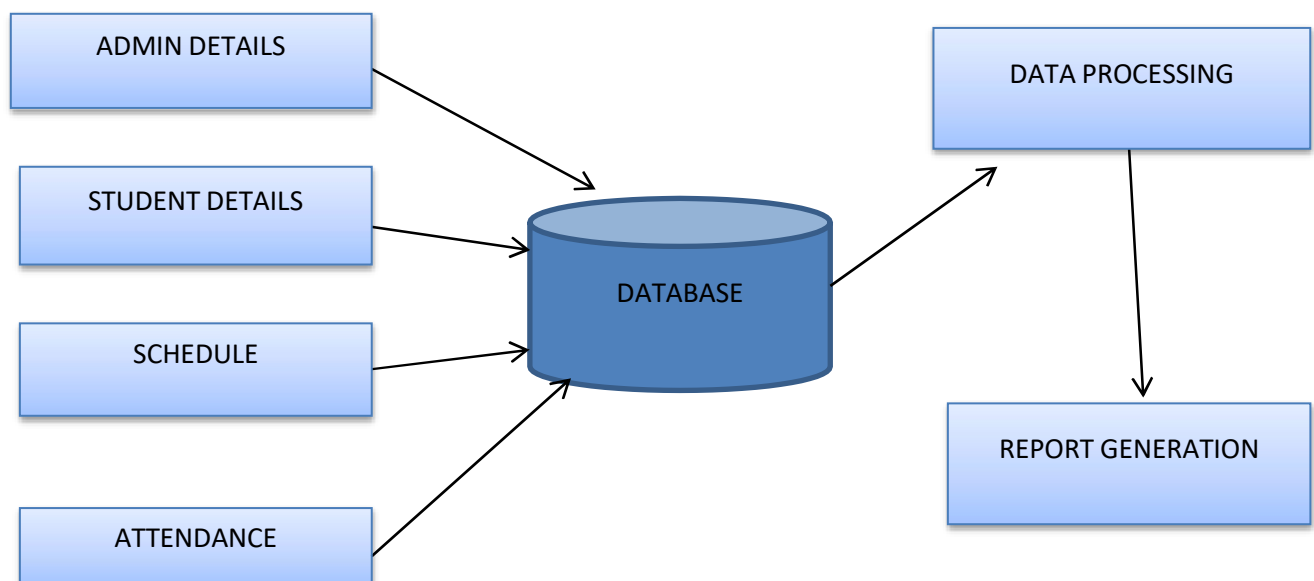
2. Technically Feasible : The proposed system is technically feasible as it does not have any complicated hardware or software requirements.

3. Operational Feasibility : This entire model is designed in such a way that it will be easily operated by any of the staff members. The operating system of this system is very flexible to use.

CHARACTERISTICS –

- Reduced paperwork
- Less Human work
- Less errors
- Fast Report generation
- Fast calculation of attendance percentage
- Method which saves a lot of time
- User friendly method

4. ARCHITECTURE



This app is built by using android studio, MYSQL and java. It is divided into two phases or categories. In the first part/phase, feasibility check is conducted and analysis demand is assigned for knowing the requirement of the system. The modules which are necessary such as admin, registration, student modules are to be explored in this part. In the second part/phase writing and testing works are to be done to confirm that the developed model or project is free from errors and checking that it meets the requirements of the user.

The above usecase model establishes the activities which are done by the admin and staff of Android based attendance manement system. Admin/Teacher can perform activities like entering his details, subject details timetable details, Attendance details, and finally generaes the attendance report of the student individually.

4.2 Modules and Description –

- ✓ Administrator
- ✓ Login(if necessary)
- ✓ Scheduler
- ✓ Attendance
- ✓ Student Profile

Administrator: The Admin module is employed to administrator to login into it and access the student information, through this module we can watch and manage the entire system, with this module we can perform operations like insertion, updating and deleting.

Module(Login): The login module is employed to the student for signing in to see their profile and know their percentage of attendance.

Scheduler : The scheduler module is employed for the use of administrator where the admin can schedule their class and get prior notification at the particular time when they have class.

Attendance : The attendance module is employed to the admin for marking the student attendance i.e., a tick is marked if the student is present or the tick is not marked if the student is absent.

Student Profile : In this student profile module, student details like name, class, department, section and also their attendance percentage is visible if their administration number is entered.

4.3 System Requirements –

- Hard disk(80 GB)
- 4 GB RAM
- Windows
- Android Studio

- Visual Studio
- SQL server

5. CONCLUSION

This application is all about accessing the details of the student and generating the information to the organization. This app is all about developing an Mobile Application which services to mark the student attendance in that particular time. Now-a-days, Android phone is playing a vital role in the human life. So, this method will be more helpful for all to improve their attendance. This method will help to maintain the attendance of a person at their working place. This will reduce the late attendance, loss of pay and permissions. This mobile app provides user to put the attendance through interactive and easy process. It is helpful to the staff members as the details of the students and their attendance percentage can be easily maintained and stored for their use in future. This project offers user to enter the attendance through simple and interactive forms. This is very helpful for the members(staff) to keep and maintain the information about their attendance easily. Attendance percentage can also be calculated easily. Our future enhancements can be extended by adding interesting features like capturing students id using a camera like biometric process.

REFERENCES

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- [3] Android Based Attendance Management System was published in IJR conference by Swapna, Nandha Kishore, Aniotha Of MLR Institute of Technology.(Vol4 Iss5, April 2017)
- {4} Android based Attendance Management System was submitted to IJARCCCE Conference by Srinivas Khendre, Samadhan Markad and MRs. Jogdand of Pimpri Chinwad Polytechnic College.
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C) SOURCE CODE

Activity main.java -

```
package assistant.genuinecoder.s_assistant.main.attendance;

import android.app.Activity;
import android.database.Cursor;
import android.os.Bundle;
import android.support.v7.app.AppCompatActivity;
import android.util.Log;
import android.view.View;
import android.widget.AdapterView;
import android.widget.Button;
import android.widget.ListView;
import android.widget.Spinner;
import android.widget.Toast;

import java.util.ArrayList;

import assistant.genuinecoder.s_assistant.R;
import assistant.genuinecoder.s_assistant.main.AppBase;
import assistant.genuinecoder.s_assistant.main.components.ListAdapter;

public class AttendanceActivity extends AppCompatActivity {

    public static String time, period;
    ListView listView;
    ListAdapter adapter;
    ArrayAdapter<String> adapterSpinner;
    ArrayList<String> names;
    ArrayList<String> registers;
    Activity thisActivity = this;
```

Spinner spinner;

@Override

protected void onCreate(Bundle savedInstanceState)

{super.onCreate(savedInstanceState);

setContentView(R.layout.activity_attendance);

time = getIntent().getStringExtra("DATE");

period = getIntent().getStringExtra("PERIOD");

Log.d("Attendance", *time* + " -- " + *period*);

listView = (ListView) findViewById(R.id.attendanceListViwe);

names = new ArrayList<>();

registers = new ArrayList<>();

Button btn = (Button) findViewById(R.id.loadButton);

assert btn != null;

btn.setOnClickListener(new View.OnClickListener()

{@Override

public void onClick(View v)

{loadListView(v);

}

});

Button btnx = (Button) findViewById(R.id.buttonSaveAttendance);

assert btnx != null;

btnx.setOnClickListener(new View.OnClickListener()

{@Override

public void onClick(View v)

{ Toast.*makeText*(getBaseContext(),

"Saving",

Toast.LENGTH_LONG).show();

```
adapter.saveAll();
```

```

    }
});

spinner = (Spinner) findViewById(R.id.attendanceSpinner);
adapterSpinner = new ArrayAdapter<String>(this,
android.R.layout.simple_spinner_dropdown_item, AppBase.divisions);
assert spinner != null;
spinner.setAdapter(adapterSpinner);

}

public void loadListView(View view)
{
    names.clear();
    registers.clear();
    String qu = "SELECT * FROM STUDENT WHERE cl = " +
spinner.getSelectedItem().toString() + " " +
        "ORDER BY ROLL";
    Cursor cursor = AppBase.handler.executeQuery(qu);
    if (cursor == null || cursor.getCount() == 0) {
        Log.e("Attendance", "Null cursor");
    } else {
        int ctr = 0;
        cursor.moveToFirst();
        while (!cursor.isAfterLast()) {
            names.add(cursor.getString(0) + " (" + cursor.getInt(4) + ")");
            registers.add(cursor.getString(2));
            cursor.moveToNext();
            ctr++;
        }
        if (ctr == 0) {
            Toast.makeText(getBaseContext(), "No Students Found",
Toast.LENGTH_LONG).show();

```

```

    }
    Log.d("Attendance", "Got " + ctr + " students");
}
adapter = new ListAdapter(thisActivity, names, registers);
listView.setAdapter(adapter);
}
}

```

XML Code -

```

?xml version="1.0" encoding="utf-8"?>
<ripple xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:color="?attr/colorControlHighlight"
    >
    <item android:id="@android:id/mask">
        <color android:color="#000000" />
    </item>
    <item android:id="@android:id/background">
        <color android:color="#f5f5f5" />
    </item>
</ripple>

<vector xmlns:android="http://schemas.android.com/apk/res/android"
    android:width="24dp"
    android:height="24dp"
    android:viewportHeight="24.0"
    android:viewportWidth="24.0">
    <path
        android:fillColor="#FF000000"

```

```

        android:pathData="M12,2C6.48,2 2,6.48 2,12s4.48,10 10,10 10,-4.48 10,-
10S17.52,2 12,2zm1,15h-2v-6h2v6zm0,-8h-2V7h2v2z" />
</vector>

```

```

vector xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:aapt="http://schemas.android.com/aapt"
    android:width="108dp"
    android:height="108dp"
    android:viewportHeight="108"
    android:viewportWidth="108">
    <path
        android:fillType="evenOdd"
        android:pathData="M32,64C32,64 38.39,52.99 44.13,50.95C51.37,48.37
70.14,49.57 70.14,49.57L108.26,87.69L108,109.01L75.97,107.97L32,64Z"
        android:strokeColor="#00000000"
        android:strokeWidth="1">
        <aapt:attr name="android:fillColor">
            <gradient
                android:endX="78.5885"
                android:endY="90.9159"
                android:startX="48.7653"
                android:startY="61.0927"
                android:type="linear">
                <item
                    android:color="#44000000"
                    android:offset="0.0" />
                <item
                    android:color="#00000000"
                    android:offset="1.0" />
            </gradient>
        </aapt:attr>
    </path>

```

```

</path>
<path
    android:fillColor="#FFFFFF"
    android:fillType="nonZero"
    android:pathData="M66.94,46.02L66.94,46.02C72.44,50.07 76,56.61
76,64L32,64C32,56.61 35.56,50.11 40.98,46.06L36.18,41.19C35.45,40.45
35.45,39.3 36.18,38.56C36.91,37.81 38.05,37.81
38.78,38.56L44.25,44.05C47.18,42.57 50.48,41.71 54,41.71C57.48,41.71
60.78,42.57 63.68,44.05L69.11,38.56C69.84,37.81 70.98,37.81
71.71,38.56C72.44,39.3 72.44,40.45
71.71,41.19L66.94,46.02ZM62.94,56.92C64.08,56.92 65,56.01 65,54.88C65,53.76
64.08,52.85 62.94,52.85C61.8,52.85 60.88,53.76 60.88,54.88C60.88,56.01
61.8,56.92 62.94,56.92ZM45.06,56.92C46.2,56.92 47.13,56.01
47.13,54.88C47.13,53.76 46.2,52.85 45.06,52.85C43.92,52.85 43,53.76
43,54.88C43,56.01 43.92,56.92 45.06,56.92Z"
    android:strokeColor="#00000000"
    android:strokeWidth="1" />
</vector>
<vector xmlns:android="http://schemas.android.com/apk/res/android"
    android:width="24dp"
    android:height="24dp"
    android:viewportHeight="24.0"
    android:viewportWidth="24.0">
    <path
        android:fillColor="#FF000000"
        android:pathData="M11.5,22c1.1,0 2,-0.9 2,-2h-4c0,1.1 0.9,2 2,2zm6.5,-6v-
5.5c0,-3.07 -2.13,-5.64 -5,-6.32V3.5c0,-0.83 -0.67,-1.5 -1.5,-1.5S10,2.67
10,3.5v0.68c-2.87,0.68 -5,3.25 -5,6.32V16l-2,2v1h17v-1l-2,-2z" />
</vector>

```

```

<vector xmlns:android="http://schemas.android.com/apk/res/android"
    android:width="24.0dp"
    android:height="24.0dp"
    android:viewportHeight="24.0"
    android:viewportWidth="24.0">
    <path
        android:fillColor="#FF000000"
        android:pathData="M12 4V1L8 5l4 4V6c3.31 0 6 2.69 6 6 0 1.01,-.25 1.97,-.7
2.8l1.46 1.46C19.54 15.03 20 13.57 20 12c0,-4.42,-3.58,-8,-8,-8zm0 14c-3.31 0,-6,-
2.69,-6,-6 0,-1.01.25,-1.97.7,-2.8L5.24 7.74C4.46 8.97 4 10.43 4 12c0 4.42 3.58 8 8
8v3l4,-4,-4,-4v3z" />
</vector>

```

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_gravity="center"
    android:background="@color/colorPrimaryDark"
    android:gravity="center"
    android:id="@+id/ctr"
    android:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin">

```

```

<LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:id="@+id/abcde"
    android:orientation="vertical">

```

```
</LinearLayout>
<TextView
    android:id="@+id/names"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:textStyle="bold"
    android:textColor="#ffffff"
    android:textSize="18dp"
    android:gravity="center"
    android:text="Developed By:-\thegenuinecoder@gmail.com"
    android:layout_alignParentBottom="true"
    android:layout_alignParentLeft="true"
    android:layout_alignParentStart="true" />
<ImageView
    android:id="@+id/imageViewAbout"
    android:layout_width="200dp"
    android:layout_height="200dp"
    android:src="@drawable/ic_action_done_all"
    android:layout_alignTop="@+id/abcde"
    android:layout_centerHorizontal="true" />
```