

PROFESSIONAL TRAINING REPORT

at

**Sathyabama Institute of Science and Technology
(Deemed to be University)**

Submitted in partial fulfillment of the requirements for the
award of Bachelor of Technology Degree in
Information Technology

By

Anvesh N

(Reg. No.39120012)



**DEPARTMENT OF INFORMATION TECHNOLOGY
SCHOOL OF COMPUTING
SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY
JEPPIAAR NAGAR, RAJIV GANDHI SALAI,
CHENNAI - 600 119**

NOVEMBER 2021



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited with "A" Grade by NAAC

Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai - 600 119.

Phone: 044 - 2450 3150 / 51 / 52 / 54 / 55 Fax: 044 - 2450 2344

www.sathyabama.ac.in



SCHOOL OF COMPUTING

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **Anvesh N (Reg No. 39120012)** and who carried out the project entitled "**Automation Testing College LMS portal**" under our supervision from June 2021 to November 2021.

INTERNAL GUIDE

Dr. R.Jeberson Retna Raj M.Tech., Ph.D.,

HEAD OF THE DEPARTMENT

Dr. R. SUBHASHINI M.E., Ph.D.,

Submitted for Viva voce Examination held on _____

Internal Examiner

External Examiner

DECLARATION

I **Anvesh N (Reg No:39120012)** hereby declare that the Project Report entitled **“Automation Testing College LMS portal”** done by me under the guidance of **Dr. R.Jeberson Retna Raj M.Tech., Ph.D.**, is submitted in partial fulfillment of the requirements for the award of Bachelor of Technology degree in Information Technology.

DATE:

PLACE: CHENNAI

SIGNATURE OF THE CANDIDATE

ACKNOWLEDGEMENT

I am pleased to acknowledge our sincere thanks to Board of management of **SATHYABAMA** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

I convey our thanks to **Dr. T. SASIKALA M.E., Ph.D.**, Dean, School of Computing and **Dr. R. SUBHASHINI M.E., Ph.D.**, Head of the Department, Department of Information Technology for providing us the necessary support and details at the right time during the progressive reviews.

I would like to express our sincere and deep sense of gratitude to our Project Guide **Dr. R. Jeberson Retna Raj M.Tech., Ph.D.**, for her valuable guidance, suggestions and constant encouragement paved way for the successful completion of my project work.

I wish to express our thanks to all Teaching and Non-teaching staff members of the Department of **INFORMATION TECHNOLOGY** who were helpful in many ways for the completion of the project.

TRAINING CERTIFICATE



JS Software Testing Solution Centre

CERTIFICATE OF COMPLETION

This certificate is presented to

N. ANVESH

in recognition of his/her hard work and dedication in completing the
Automation Selenium Testing Course from August 2021 to November 2021.

S. Johnson
Director

Irfana
Trainer

ABSTRACT

Over the last years software development life-cycles have continuously been shortened and new releases are being deployed at a more and more frequent level. In order to ensure the quality of those releases, a strong shift towards automated testing at all testing levels has become noticeable throughout the software development industry. At system testing level, the scope of testing is the developed product as a whole, tested in a test environment that has a very close resemblance to the production system. Because of this system-wide scope and the many potential sources for failures, the implementation of automated tests at this level is challenging. Exhaustive testing is neither feasible nor maintainable, therefore proper designed test cases that cover important functionality are essential. Due to increasing laws and regulations on data protection and data privacy, proper management of test data used in auto-mated testing is as important. This paper discusses how automated system.

TABLE OF CONTENTS

CHAPTER NO.	TITLE	PG.NO
	ABSTRACT	Vi
1.	INTRODUCTION 1.1 GENERAL 1.2 OUTLINE OF THE PROJECT 1.3 ORGANIZATION OF THE REPORT	 1 1 1
2.	AIM 2.1 AIM 2.2 PROBLEM STATEMENT 2.3 LITERATURE REVIEW 2.4 SCOPE	 2 2 2-3 4
3.	SYSTEM IMPLEMENTATION 4.1 REQUIREMENTS 4.2 ROLE OF JAVA 4.3 RESULTS	 5 6 7

4.	CONCLUSION AND FUTURE WORK 4.1 CONCLUSION 4.2 FUTURE WORK	14 14
	APPENDIX A. SCREEN SHOTS B. SOURCE CODE REFERENCES	15-17 18-19-20 20

CHAPTER 1

INTRODUCTION

1.1 GENERAL

Software Testing Qualification Board (ISTQB), test automation is defined as using software to either support or perform testing activities. In test automation, software is used not only for test execution per se, but also for activities like management of test cases, design of test cases or the evaluation and reporting of test results. While initially seen as a possibility to increase efficiency and reduce costs, test automation has become an essential part of software development process

1.2 OUTLINE OF THE PROJECT

To update LMS description for more than 500+ people manually it takes days, weeks, papers and human energy to complete it. But by using this project we are able to complete our work in less than an hour. It saves time, money, energy and less paper work. It is also very convenient to check, change the description of the user profile. Many errors are saved in this method.

1.3 ORGANIZATION OF THE REPORT

Chapter 2 deals with Aim, Problem Statement, Literature Review and Scope of the present investigation. Chapter 3 deals with Requirement, Role of Java and Results and Discussion. Chapter 4 deals with Conclusion and Future work.

CHAPTER 2

AIM & SCOPE

2.1 AIM

To test learning Management System (LMS) college portal, the given user id is valid or invalid. If the provided user ID and password is incorrect, it gives as invalid. If the provided user Id and password is correct, it gets directed to the user account-> profile-> edit profile-> description.

The given statement will be printed in the description box.

2.2 PROBLEM STATEMENT

The problem statement, is to test the LMS and the portal in a very short period of time. To give the description to the valid users and error to the invalid users. To do this process manually it takes a lot of time and many paper works. So we are using this automation testing to reduce time and work.

2.3 LITERATURE REVIEW

Universities have shown a great interest adoption of new technologies. Many research studies that conducted about adoption of new technologies had used Technology Acceptance Model (TAM). Which was developed by Davis et al. in 1989. The web technology (LMS) which was used by many universities to deliver learning and teaching besides the usual face-to-face classroom.

The research studies of Trayek and Hassan (2013) and Majdalawi et al. (2014) concerning students attitude towards using of LMS have used the core constructs: perceived ease of use, perceived usefulness of TAM. Some research studies considered demographic factors of acceptance of LMS. The study of Claar et al. (2014) has said that demographic factors such as age, race, gender, and education levels contribute on student acceptance of LMS. In this study shows the different relationships among variables such as Perceived Ease of Use has a significant positive influence on perceived usefulness of LMS, Perceived usefulness

and Perceived Ease of Use has a significant positive influence on attitude toward using LMS,

Perceived Usefulness and Attitude toward using has a significant positive influence on behavioral intentions to use, The higher the educational level, the more likely new LMS systems will be accepted and the higher a person's age, the more likely he/she is to perceive a new LMS more negatively.

2.4 SCOPE

It is more efficient and convenient for the college. It reduces the manpower needed to perform the entire administration task by reducing the paper work needed, all the work is done by the computer there will be no chance of error.

In a nutshell, it can be summarized that the future scope of the project circles around maintaining information regarding.

- * We can add printer in future
- * We can give more advance software for Learning Management System including more facilities
- * We will host platform on online servers to make it accessible worldwide
- * Implement the backup mechanism for taking backup of codebase and database on regular basis on different servers.

CHAPTER 3

SYSTEM IMPLEMENTATION

3.1 REQUIREMENTS

I. HARDWARE REQUIREMENTS

- A 64-bit operating system like Windows 7 or later.
- Microsoft Internet Explorer 9.0 or later.
- Intel Core i5 or Intel Core i7 (the 3rd generation).

II. SOFTWARE REQUIREMENTS

- Eclipse
- TestNG
- Java

3.2 ROLE OF JAVA

- **Java**

Java is a class-based. Object-oriented programming language that is designed to have as few implementation dependencies as possible, It is a general-purpose programming language intended to let application developers write once, run anywhere (WORA), meaning that complied java code can run on all platforms that supports Java without the need for recompilation.

- **Eclipse**

Eclipse is an integrated development environment (IDE) used in computer program. It contains a base workspace and an extensible plug-in system for customizing the environment. Eclipse is written mostly in Java and its primary use is for developing Java applications, but it may also be used to develop applications in other programming language.

- **TestNG**

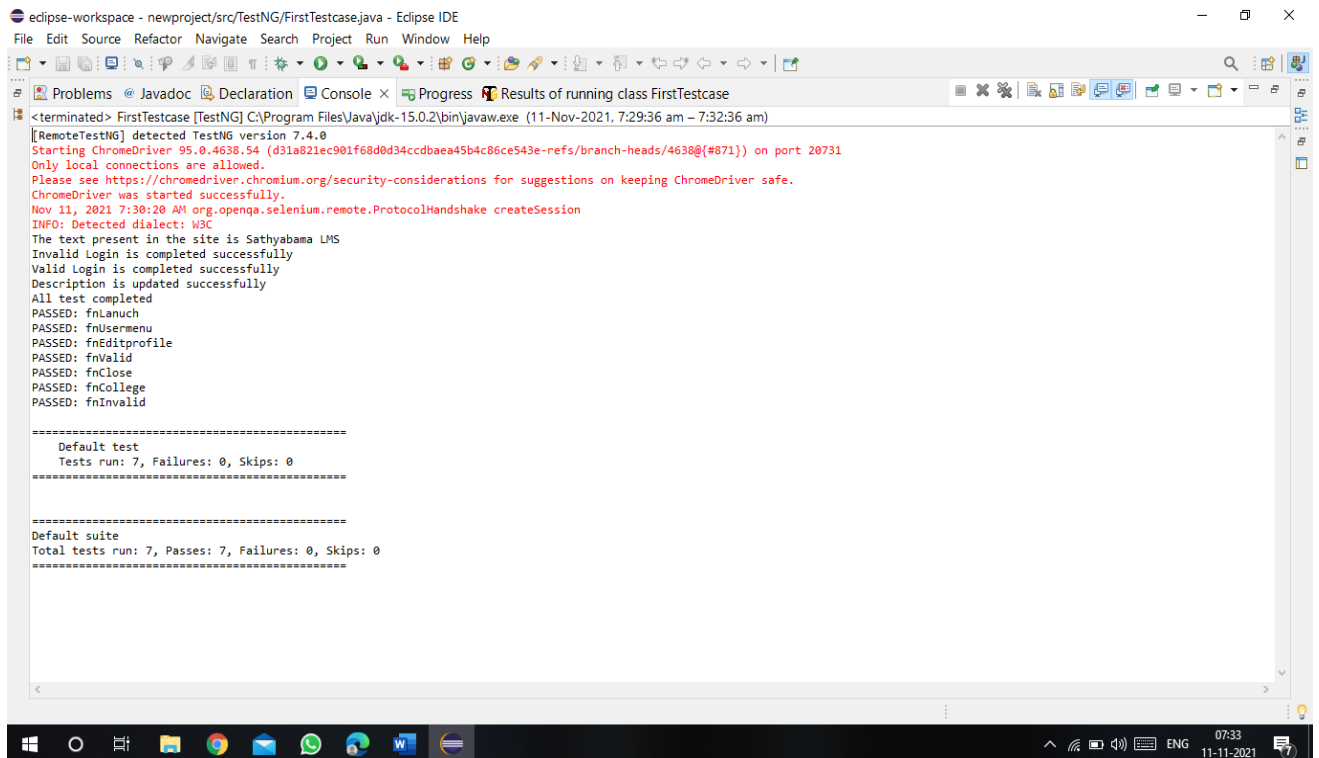
TestNG is an automation testing framework in which NG stands for “Next Generation”. TestNG is inspired from JUnit which uses the annotations (@). TestNG overcomes the disadvantages of JUnit and is designed to make end to end testing easy.

There is a future scope of this facility that many more features such as online lectures video tutorials can be added by teachers as well as online assignments submission facility , a feature Of group chat where students can discuss various issues of engineering can be added to this project thus making it more interactive more user friendly and project which fulfills each users need in the best way possible.

3.2 RESULTS AND DISCUSSION

Using TestNG, successfully launched the browser and the Learning Management System, logged into description, the valid code executed successfully.

All testcases are passed.



```
eclipse-workspace - newproject/src/TestNG/FirstTestcase.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help

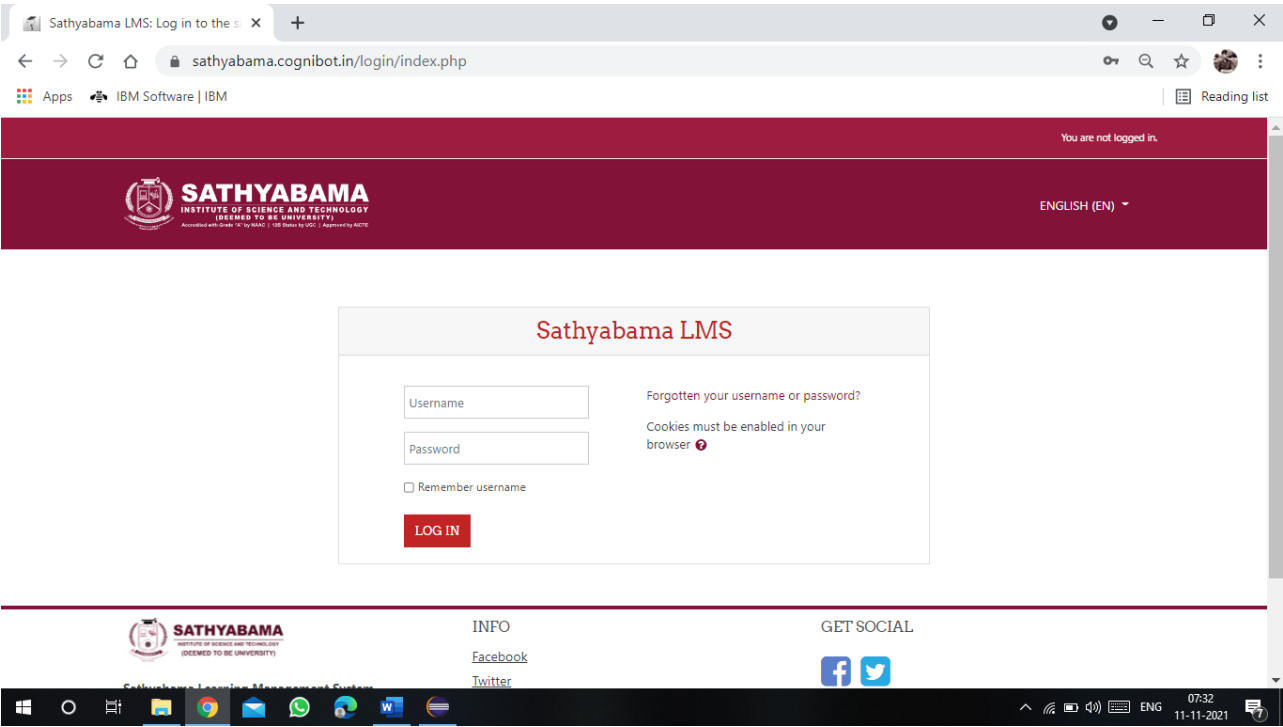
[Problems] [Javadoc] [Declaration] [Console] [Progress] [Results of running class FirstTestcase]
<terminated> FirstTestcase [TestNG] C:\Program Files\Java\jdk-15.0.2\bin\javaw.exe (11-Nov-2021, 7:29:36 am - 7:32:36 am)

[RemoteTestNG] detected TestNG version 7.4.0
Starting ChromeDriver 95.0.4638.54 (d31a821ec901f68d0d34ccdbaea45b4c86ce543e-refs/branch-heads/4638@{#871}) on port 20731
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
Nov 11, 2021 7:30:20 AM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: W3C
The text present in the site is Sathyabama LMS
Invalid Login is completed successfully
Valid Login is completed successfully
Description is updated successfully
All test completed
PASSED: fnlanuch
PASSED: fnUsermenu
PASSED: fnEditprofile
PASSED: fnValid
PASSED: fnClose
PASSED: fnCollege
PASSED: fnInvalid

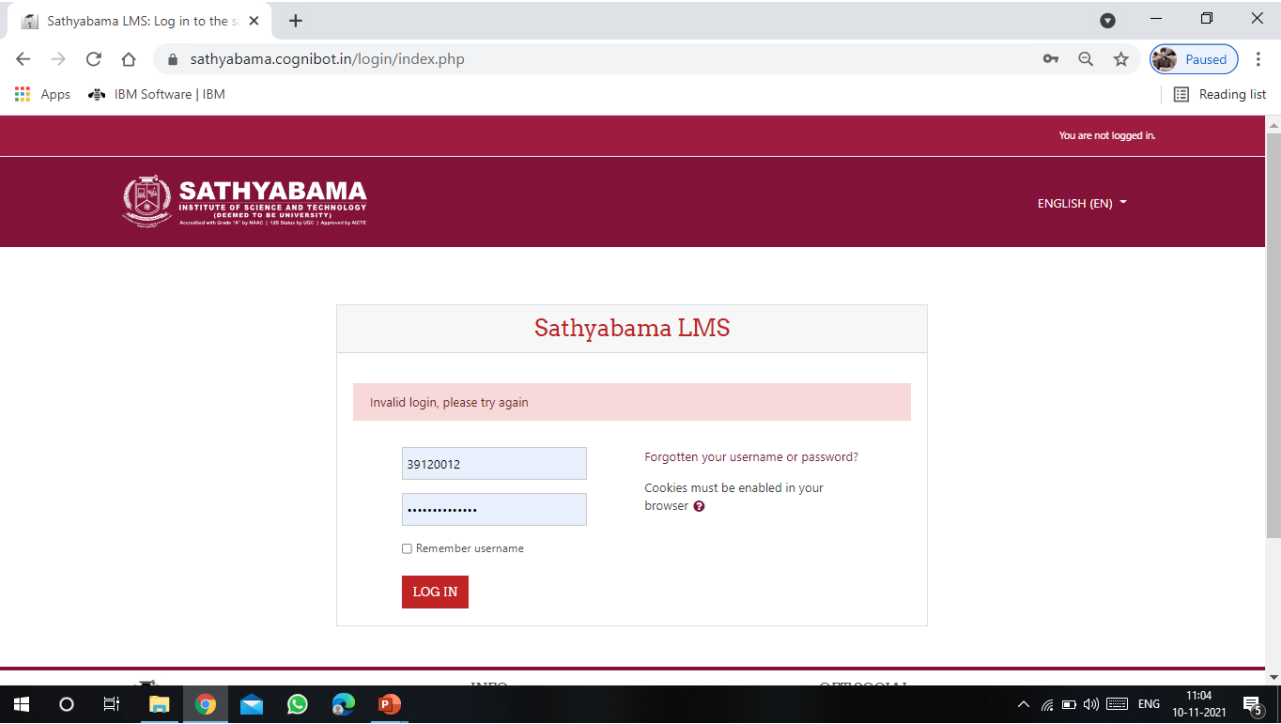
=====
Default test
Tests run: 7, Failures: 0, Skips: 0
=====

Default suite
Total tests run: 7, Passes: 7, Failures: 0, Skips: 0
=====
```

INVALID



INVALID



VALID

Sathyabama LMS: Log in to the s x +

sathyabama.cognibot.in/login/index.php

Apps IBM Software | IBM

Reading list

You are not logged in.

SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Accredited with Status 'A' by NAAC | ISO 9001:2015 Certified by ISO | Approved by AICTE

ENGLISH (EN) ▾

Sathyabama LMS

39120012

Forgotten your username or password?

Cookies must be enabled in your browser ?

☐ Remember username

LOG IN

SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
INSTITUTE OF SCIENCE AND TECHNOLOGY

INFO GET SOCIAL

11:04
10-11-2021

VALID

The screenshot shows a web browser window with the address bar displaying 'sathyabama.cognibot.in/my/'. The page features a dark red header with the Sathyabama logo and the text 'SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY (DEEMED TO BE UNIVERSITY)'. A user profile 'ANVESH N' is visible in the top right corner. Below the header, there is a 'CUSTOMISE THIS PAGE' button. The main content area is divided into several sections: 'Recently accessed courses' which lists three courses (SCSA2502-Operating System - Lab, SITA1503-FOG AND CLOUD COMPU..., and SITA2501-CUSTOMER INTERFACE DE...), 'Timeline' which shows 'No upcoming activities due', and 'Private files' which shows 'No files available'. A 'Course overview' section is also visible at the bottom left. The Windows taskbar at the bottom shows various application icons and the system clock indicating 11:05 on 10-11-2021.

VALID

The screenshot shows a web browser window with the address bar displaying `sathyabama.cognibot.in/user/profile.php?id=6275`. The page header features the Sathyabama Institute of Science and Technology logo and name, along with a language selector set to "ENGLISH (EN)". The main content area displays the user profile for "ANVESH N", including a profile picture, a settings gear icon, and navigation buttons for "RESET PAGE TO DEFAULT" and "CUSTOMISE THIS PAGE". The profile is divided into two sections: "User details" and "Miscellaneous".

User details

- Email address**: anveshani4585@gmail.com
- Country**: India
- City/town**: Chennai/thiruporur
- Designation**: (field is empty)

Miscellaneous

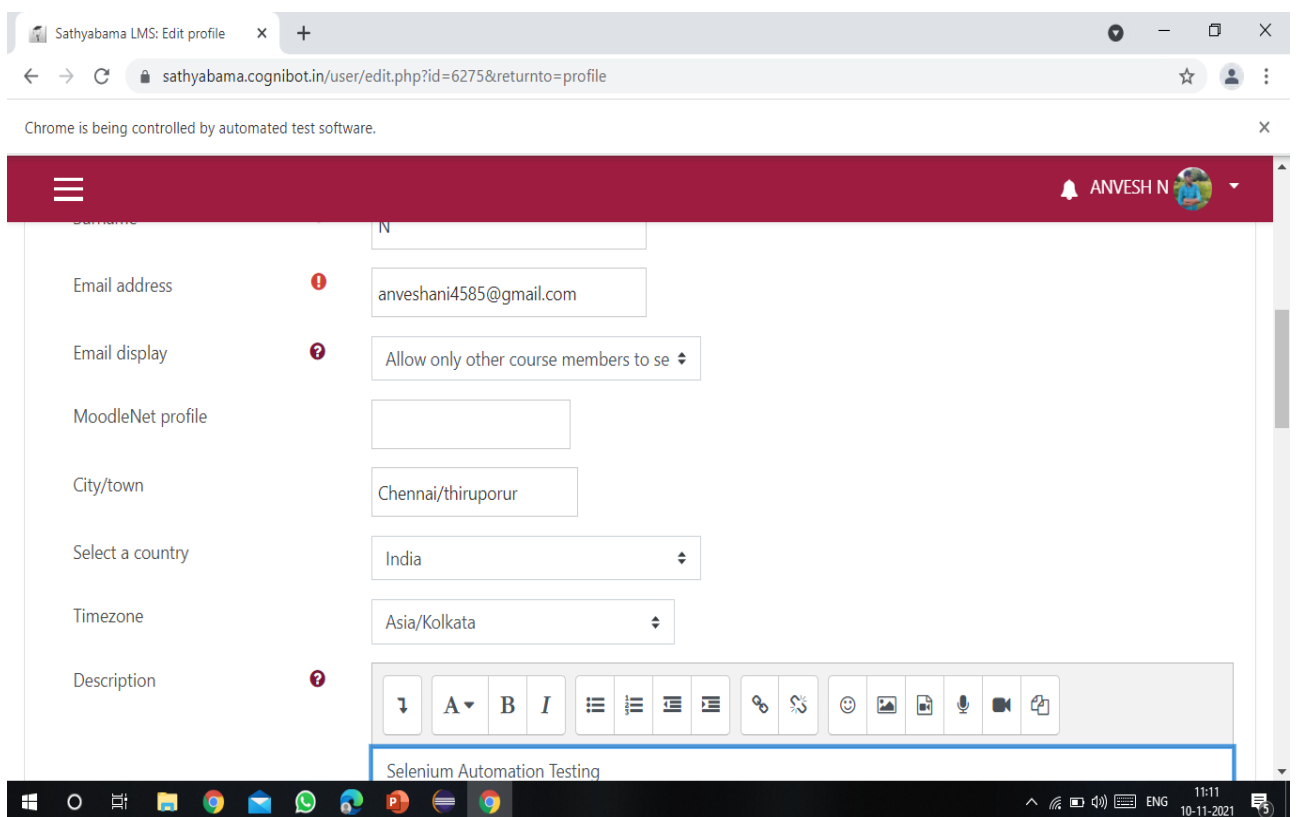
- Blog entries
- Forum posts
- Forum discussions
- Learning plans

Reports

- Brower sessions

The browser's taskbar at the bottom shows various application icons and the system clock indicating 11:05 on 10-11-2021.

VALID



CHAPTER 4

CONCLUSION AND FUTURE WORK

4.1 CONCLUSION

Selenium is a cost-effective and flexible tool developers can use in the automation testing of their web applications. The most intriguing feature of this software is the ability to test applications across various web browsers.

This ensures that websites do not crash or breakdown in certain browsers. The Selenium software is ideal for companies developing applications that support heavy traffic, especially social platforms and e-commerce websites.

I say that this project has given me a great experience. Thanks to this project, I learned a lot of technical skill as well as I was personally benefited.

4.2 FUTURE WORK

There is a future scope of this facility that many more features such as online lectures video tutorials can be added by teachers as well as online assignments submission facility, a feature of group chat where students can discuss various issues of engineering can be added to this project thus making it more interactive more user friendly and project which fulfills each users need in the best way possible.

This project can be further implemented by testing the LMS portal by directing it into different dashboard, or profile. The code can be developed in eclipse application and by the help of JavaScript, the code is executed in TestNG tool.

APPENDICES

A. SCREENSHOTS

c/TestNG/FirstTestcase.java - Eclipse IDE

File Search Project Run Window Help

Myclass.java valid_prog.java FirstTestcase.java ×

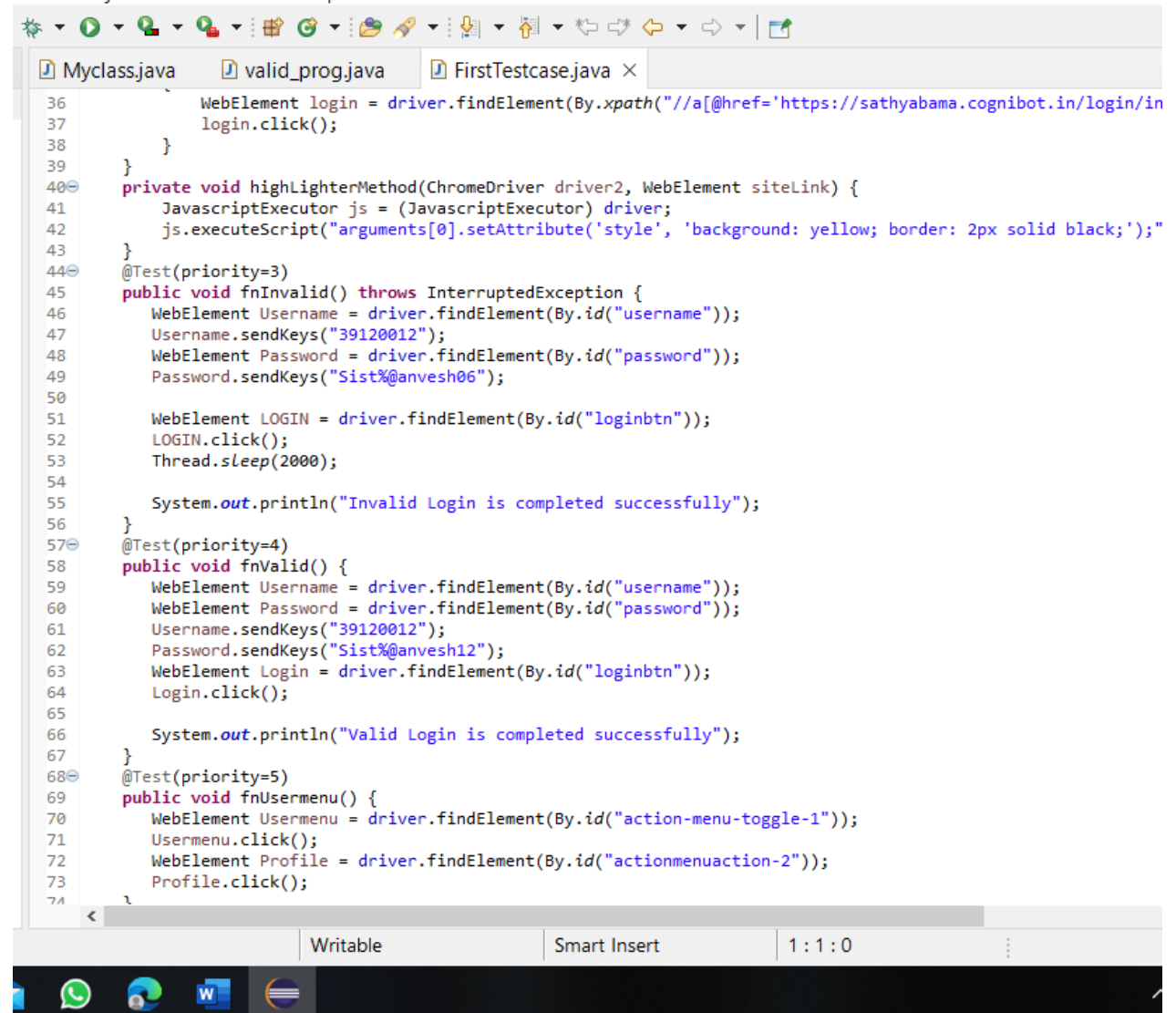
```
1 package TestNG;
2
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.JavascriptExecutor;
5 import org.openqa.selenium.Keys;
6 import org.openqa.selenium.WebElement;
7 import org.openqa.selenium.chrome.ChromeDriver;
8 import org.testng.annotations.BeforeSuite;
9 import org.testng.annotations.Test;
10
11 public class FirstTestcase {
12     String driverpath = "C:\\chrome_driver\\chromedriver_win32\\chromedriver.exe";
13     public ChromeDriver driver;
14     @BeforeSuite
15     public void fnInitialization() {
16         System.setProperty("webdriver.chrome.driver", driverpath);
17         driver = new ChromeDriver();
18         driver.manage().window().maximize();
19         driver.get("https://www.google.com");
20     }
21     @Test(priority=1)
22     public void fnCollege() {
23         WebElement SearchBox = driver.findElement(By.name("q"));
24         SearchBox.sendKeys("Sathyabama Lms Portal");
25         SearchBox.sendKeys(Keys.ENTER);
26     }
27     @Test(priority=2)
28     public void fnLanuch() {
29         WebElement SiteLink = driver.findElement(By.xpath("//h3[@class='LC201b DKV0Md']"));
30         highlighterMethod(driver, SiteLink);
31         String SiteName = SiteLink.getText();
32         SiteLink.click();
33         System.out.println("The text present in the site is "+SiteName);
34         if(SiteName.contains("Sathyabama LMS"))
35         {
36             WebElement login = driver.findElement(By.xpath("//a[@href='https://sathyabama.cognibot.in/login/index.ph"));
37             login.click();
38         }
39     }
40 }
```

Writable Smart Insert 1 : 1 : 0

Windows taskbar with icons for Mail, WhatsApp, Browser, Word, and Task View.

IG/FirstTestcase.java - Eclipse IDE

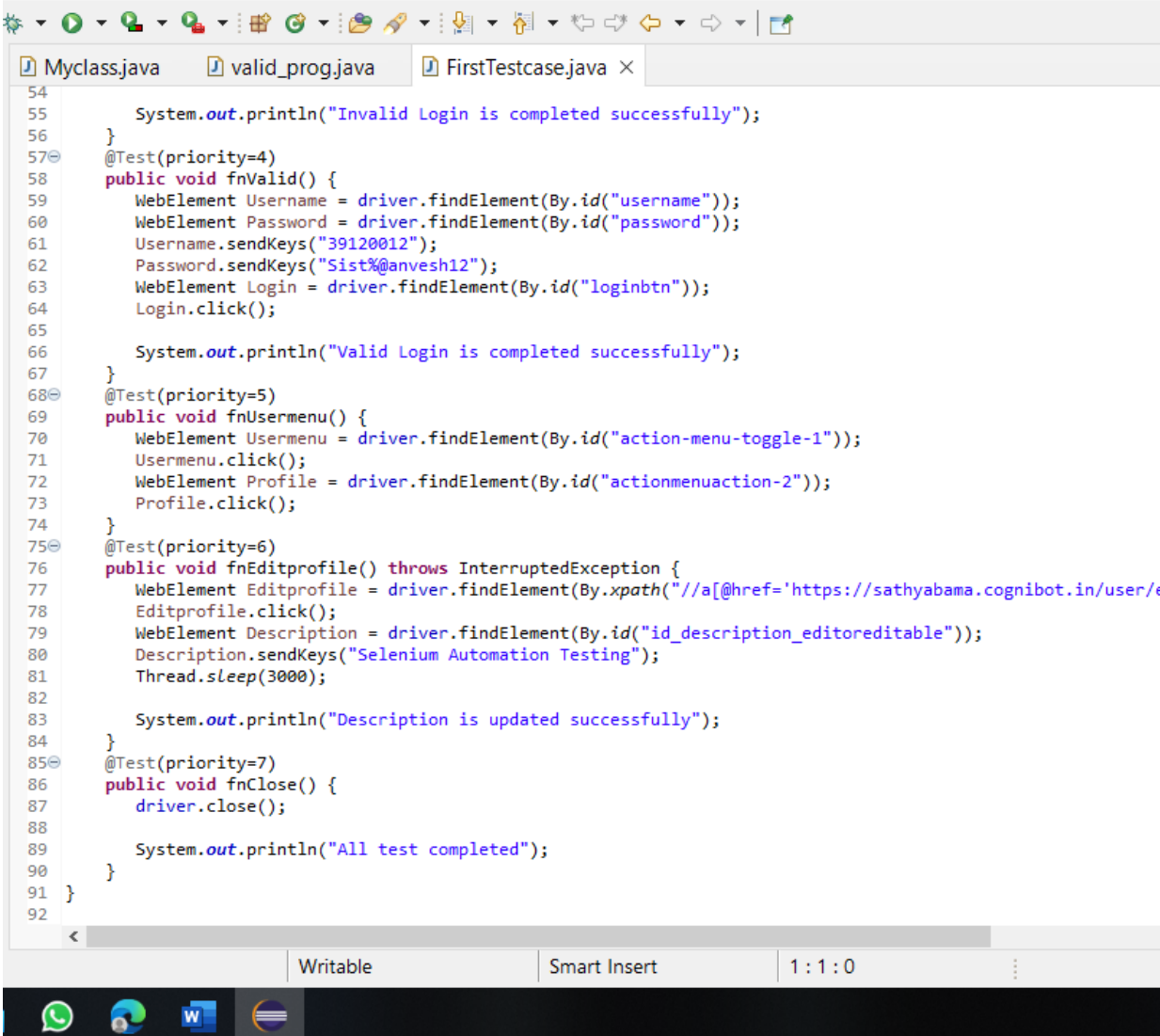
Search Project Run Window Help



```
36         WebElement login = driver.findElement(By.xpath("//a[@href='https://sathyabama.cognibot.in/login/in
37         login.click();
38     }
39 }
40 private void highlighterMethod(ChromeDriver driver2, WebElement siteLink) {
41     JavascriptExecutor js = (JavascriptExecutor) driver;
42     js.executeScript("arguments[0].setAttribute('style', 'background: yellow; border: 2px solid black;');")
43 }
44 @Test(priority=3)
45 public void fnInvalid() throws InterruptedException {
46     WebElement Username = driver.findElement(By.id("username"));
47     Username.sendKeys("39120012");
48     WebElement Password = driver.findElement(By.id("password"));
49     Password.sendKeys("Sist%anvesh06");
50
51     WebElement LOGIN = driver.findElement(By.id("loginbtn"));
52     LOGIN.click();
53     Thread.sleep(2000);
54
55     System.out.println("Invalid Login is completed successfully");
56 }
57 @Test(priority=4)
58 public void fnValid() {
59     WebElement Username = driver.findElement(By.id("username"));
60     WebElement Password = driver.findElement(By.id("password"));
61     Username.sendKeys("39120012");
62     Password.sendKeys("Sist%anvesh12");
63     WebElement Login = driver.findElement(By.id("loginbtn"));
64     Login.click();
65
66     System.out.println("Valid Login is completed successfully");
67 }
68 @Test(priority=5)
69 public void fnUsermenu() {
70     WebElement Usermenu = driver.findElement(By.id("action-menu-toggle-1"));
71     Usermenu.click();
72     WebElement Profile = driver.findElement(By.id("actionmenuaction-2"));
73     Profile.click();
74 }
```

5/FirstTestcase.java - Eclipse IDE

arch Project Run Window Help



```
54         System.out.println("Invalid Login is completed successfully");
55     }
56 }
57 @Test(priority=4)
58 public void fnValid() {
59     WebElement Username = driver.findElement(By.id("username"));
60     WebElement Password = driver.findElement(By.id("password"));
61     Username.sendKeys("39120012");
62     Password.sendKeys("Sist%anvesh12");
63     WebElement Login = driver.findElement(By.id("loginbtn"));
64     Login.click();
65
66     System.out.println("Valid Login is completed successfully");
67 }
68 @Test(priority=5)
69 public void fnUsermenu() {
70     WebElement Usermenu = driver.findElement(By.id("action-menu-toggle-1"));
71     Usermenu.click();
72     WebElement Profile = driver.findElement(By.id("actionmenuaction-2"));
73     Profile.click();
74 }
75 @Test(priority=6)
76 public void fnEditprofile() throws InterruptedException {
77     WebElement Editprofile = driver.findElement(By.xpath("//a[@href='https://sathyabama.cognibot.in/user/e
78     Editprofile.click();
79     WebElement Description = driver.findElement(By.id("id_description_editoreditable"));
80     Description.sendKeys("Selenium Automation Testing");
81     Thread.sleep(3000);
82
83     System.out.println("Description is updated successfully");
84 }
85 @Test(priority=7)
86 public void fnClose() {
87     driver.close();
88
89     System.out.println("All test completed");
90 }
91 }
92 }
```

Writable Smart Insert 1 : 1 : 0

WhatsApp, Edge, Word, Eclipse

SOURCE CODE:

```
package TestNG;

import org.openqa.selenium.By;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.Keys;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.annotations.BeforeSuite;
import org.testng.annotations.Test;

public class FirstTestcase {
    String driverpath="C:\\chrome_driver\\chromedriver_win32\\chromedriver.exe";
    public ChromeDriver driver;
    @BeforeSuite
    public void fnInitialization() {
        System.setProperty("webdriver.chrome.driver",driverpath);
        driver=new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("https://www.google.com");
    }
    @Test(priority=1)
    public void fnCollege() {
        WebElement SearchBox = driver.findElement(By.name("q"));
        SearchBox.sendKeys("Sathyabama Lms Portal");
        SearchBox.sendKeys(Keys.ENTER);
    }
    @Test(priority=2)
    public void fnLanuch() {
        WebElement SiteLink =
        driver.findElement(By.xpath("//h3[@class='LC20lbDKV0Md']"));
        highlighterMethod(driver,SiteLink);
        String SiteName = SiteLink.getText();
        SiteLink.click();
        System.out.println("The text present in the site is "+SiteName);
        if(SiteName.contains("Sathyabama LMS"))
        {
            WebElement login =
            driver.findElement(By.xpath("//a[@href='https://sathyabama.cognibot.in/login/index.php']"));
            login.click();
        }
    }
}
```

```

private void highLighterMethod(ChromeDriver driver2, WebElement
siteLink) {
    JavascriptExecutor js = (JavascriptExecutor) driver;
    js.executeScript("arguments[0].setAttribute('style','background:
yellow; border: 2px solid black;');", siteLink);
}
@Test(priority=3)
public void fnInvalid() throws InterruptedException {
    WebElement Username = driver.findElement(By.id("username"));
    Username.sendKeys("39120012");
    WebElement Password = driver.findElement(By.id("password"));
    Password.sendKeys("Sist%@anvesh06");

    WebElement LOGIN = driver.findElement(By.id("loginbtn"));
    LOGIN.click();
    Thread.sleep(2000);

    System.out.println("Invalid Login is completed successfully");
}
@Test(priority=4)
public void fnValid() {
    WebElement Username = driver.findElement(By.id("username"));
    WebElement Password = driver.findElement(By.id("password"));
    Username.sendKeys("39120012");
    Password.sendKeys("Sist%@anvesh12");
    WebElement Login = driver.findElement(By.id("loginbtn"));
    Login.click();

    System.out.println("Valid Login is completed successfully");
}
@Test(priority=5)
public void fnUsermenu() {
    WebElement Usermenu = driver.findElement(By.id("action-menu-toggle-
1"));
    Usermenu.click();
    WebElement Profile = driver.findElement(By.id("actionmenuaction-2"));
    Profile.click();
}
@Test(priority=6)
public void fnEditprofile() throws InterruptedException {
    WebElement Editprofile =
driver.findElement(By.xpath("//a[@href='https://sathyabama.cognibot.in/user/edit.p
hp?id=6275&returnto=profile']"));
    Editprofile.click();
    WebElement Description =
driver.findElement(By.id("id_description_editoreaditable"));
    Description.sendKeys("Selenium Automation Testing");
    Thread.sleep(3000);

    System.out.println("Description is updated successfully");
}

```

```
}  
@Test(priority=7)  
public void fnClose() {  
    driver.close();  
  
    System.out.println("All test completed");  
}  
}
```

REFERENCES

- <https://www.w3schools.in/software-testing/overview/>
- <https://www.javatpoint.com/automation-testing-tool>
- <https://www.testbytes.net/blog/automation-testing-tutorial/>
- <https://www.guru99.com/>