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 Engineering Degree in Computer Science and Engineering

By

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SCHOOL OF COMPUTING

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APRIL 2022

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INSTITUTE OF SCIENCE AND TECHNOLOGY
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **K.SNEHA (Reg. No: 40732001)** who carried out the project entitled "**FOOD ORDERING APP SCREENS**" under my supervision from February 2022 to April 2022.

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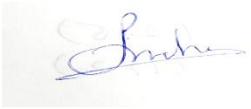
Submitted for Viva voce Examination held on 17-04-2023

Internal Examiner **External Examiner**

DECLARATION

I**, K.SNEHA** hereby declare that the project report entitled **FOOD ORDERING APP SCREENS** done by me under the guidance of **Ms.R.VELVIZHI** is submitted in partial fulfillment of the requirements for the award of Bachelor of Engineering Degree in Computer Science and Engineering with specialization in internet of things.



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TRAINING CERTIFICATE

ABSTRACT

The Food experience has come a long way, it has become a much more hassle-free experience for the customers. The Food ordering mobile application is an internet-based application that provides the freedom to order from any place at any time without pausing everything. Thus, the objective of this project is to design customizable, responsive and user-friendly app screens for online food ordering and delivery service. To do this project, Figma software has been employed. The online food ordering application projects with the help of diagrams and illustrations. Designing has been done within the frames for which the interactions are connected with one another. The final prototype of the project is built using Figma which shows the operations that are employed through this application.

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LIST OF ABBREVIATIONS

ABBREVATION	EXPANSION
UI Design	User Interface Design
UX Design	User Experience Design
DP	Departure
RT	Return

CHAPTER 1

INTRODUCTION

1.1 WHAT IS UI DESIGN?

The “UI” in UI design stands for “user interface.” The user interface is the graphical layout of an application. User interface (UI) is anything a user may interact with to use a digital product or service is nothing but the design of user interfaces for machines and software, such as computers, home appliances, mobile devices, and other electronic devices, with the focus on maximizing usability and the user experience.

User interface (UI) design is the process designers use to build interfaces in software or computerized devices, focusing on looks or style. Designers aim to create interfaces which users find easy to use and pleasurable. UI design refers to graphical user interfaces and other forms — e.g., voice-controlled interfaces sufficient. relate different views of information visually. It is a real time user interface. It is a graphical representation of data. Examples are Art: Analyzing the color palettes of great artworks, applicable to everyday life: food and wine pairings.

It consists of the buttons users click on, the text they read, the images, sliders, text entry fields, and all the rest of the items the user interacts with. This includes screen layout, transitions, interface animations and every single micro-interaction as shown in the figure 1.1. Any sort of visual element, interaction, or animation must all be designed. Designers decide what the application is going to look like. They have to choose color schemes and button shapes — the width of lines and the fonts used for text.

UI designers create the look and feel of an application’s user interface. This includes everything from screens and touchscreens, keyboards, sounds, and even lights. They include both input devices like keyboard, mouse, trackpad, microphone, touch screen, fingerprint scanner, e-pen and camera and output devices like

monitors, speakers and printers. Devices that interact with multiple senses are called "multimedia user interfaces".

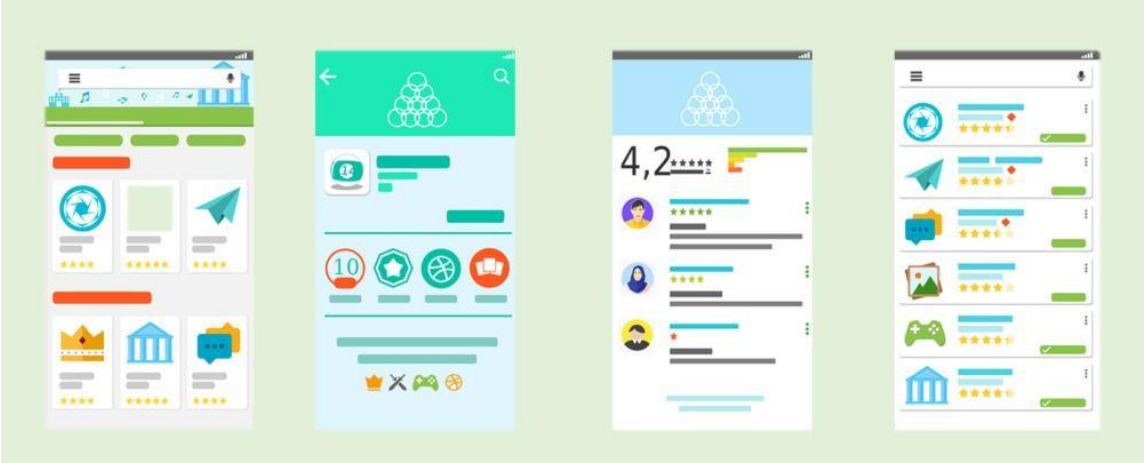

Fig. 1.1 : Graphical User Interface Design

1.2 WHAT IS UX DESIGN?

"UX" stands for "user experience." A user's experience of the app is determined by how they interact with it as shown in the figure 1.2. Is the experience smooth and intuitive or clunky and confusing? Does navigating the app feel logical or does it feel arbitrary? Does interacting with the app give people the sense that they're efficiently accomplishing the tasks they set out to achieve or does it feel like a struggle? User experience is determined by how easy or difficult it is to interact with the user interface elements that the UI designers have created.

"User Experience Design (UXD or UED) is a design process whose sole objective is to design a system that offers a great experience to its users. Thus, UXD embraces the theories of number of disciplines such as user interface design, usability, accessibility, information architecture, and Human Computer Interaction.

UX design is particularly interested in user expectations. All of the experiences and interactions that users have had with every application they've used in their lives have helped set their expectations for how interfaces are supposed to work. If a UX designer isn't intimately familiar with these expectations, they could inadvertently design an interface interaction that seems logical to them but breaks commonly accepted conventions. Users don't like when an interface behaves very differently

than they were expecting, and this could negatively impact their experience.

UX design examples to learn from

- Top B2B & B2C UX design examples.
- Airbnb's booking experience.
- Netflix's autoplay features.
- Miro's user onboarding.
- Headspace's inspiring UX retention strategy.
- Todoist's recurring tasks feature.
- Mailchimp's password guidance.
- Revolut's customizable app.

Fig. 1.2 : Tasks done in UX Design

1.3 UI DESIGN VS UX DESIGN

- UX designer works with people a lot like users and colleagues and run workshops and participate in collaborative activities but in UI design, there are more tasks that are just dependent on the their responsibility and work on their own a bit more.

- User interface (UI) design refers to the aesthetic elements by which people interact with a product, such as buttons, icons, menu bars, typography, colors, and more. User experience (UX) design refers to the experience a user has when interacting with a product.

- UX is focused on the user's journey to solve a problem, UI is focused on how a product's surfaces look and function

- A UX designer is concerned with the conceptual aspects of the design process, leaving the UI designer to focus on the more tangible elements

- UX encompasses all the experiences a person has with a product or service, whereas UI is specific to the means by which people interact with a product or service. UX can apply to any kind of product, service, or experience; UI is specific to digital products and experiences.

- UX design usually comes first in the product development process, followed by UI. The UX designer maps out the bare bones of the user journey; the UI designer then fills it in with visual and interactive elements.

UX (User Experience)	**UI (User Interface)**
1. UX focuses on helping users accomplish goals with useful flows and interfaces	1. Ul focuses on emotional connections and interactions with appealing interfaces
2. UX refers to approaches, methods, motivations and touchpoints.	2. Ul refers to the visual appearance of what is in front of the user at the moment.
3. UX challenges constraints.	3. Ul implements constraints
4. UX is the journey to solve a problem.	4. UI is the look and function
5. UX is the conceptual	5. Ul is the tangible.
6. UX looks at macro-interactions	6. Ul zooms into micro-interactions
7. UX is focused on the overall experience.	7. Ul focuses on the look of the site
8. UX determines it the user needs this particular component	8. UI decides the styling of how that component will look in different states

Table 1.1 : UI vs UX

1.4 ROLE OF UI DESIGNER

The role of UI designers is more relevant to the visual representation of information. UI designers should have graphic design, visual design, and branding design skills to create interfaces that have a good look and feel. Usually, UI designers take the user flow and wireframes for individual screens/pages created by UX designers (skeleton of design) and turn it into something aesthetically pleasing (dressing-up the skeleton).

Being a good designer means a few things, such as:

- Attention to detail. Good designers know that "The devil is in the detail," and they are continually perfecting even tiny elements of their solutions.

- Good problem-solving skills. No matter what you do in design, you always solve a specific problem. Designers should be ready to spend enough time finding a proper solution.

But there are a few specific things that are relevant for UI designer:

- Competitive analysis: It analyzes and conducts competitive analysis of products and visual design decisions that they make.
- Responsive design: Ensure UI design looks great on any screen size and resolution.
- Communication. Usually, UI designer works closely with UX designers and engineering team. Communication skills required to understand technical feasibility (whether the team can implement the design)

1.5 ROLE OF UX DESIGNER

UX design is a human-first way of designing products. UX designers are responsible for analyzing the target audience's needs and ensuring that the company creates products that meet those needs. UX design is a multidisciplinary

field where UX designers can be involved in different areas of product development such as product research, ideation, prototyping, testing.

UX designer's responsibilities usually include:

- Understanding users. UX design usually starts with extensive research that has a goal to understand the target audience, their wants, and needs. Empathy is a crucial skill for UX designers. It helps UX designers to understand and uncover the latent needs and emotions of the people they are designing for.
- Creating a design strategy. Design strategy includes understanding the purpose of a product, mapping a logical journey.
- Analyzing the design of interactions. UX designers analyze how people use products – their interaction habits, personal preferences, and shortcuts they use while interacting with UI. All insights are used in proposing better design solutions.
- Creating wireframes and prototypes. UX designers often need to create wireframes or prototypes using UX software to propose their ideas to design team.

UX designers are constantly involved in the execution of a product. They interact with all team members to ensure that product design is moving in the right direction.

1.6 QUALITIES OF A WELL-DEFINED USER INTERFACE DESIGN

- **Simplicity:**
  - User Interface design should be simple.
  - Less number of mouse clicks and keystrokes are required to accomplish this task.
  - It is important that new features only add if there is compelling need for them and they add significant values to the application.

- **Consistency:**
  - The user interface should have a more consistency.
  - Consistency also prevents online designers information chaos, ambiguity and instability.
  - We should apply typeface, style and size convention in a consistent manner to all screen components that will add screen learning and improve screen readability. In this we can provide permanent objects as unchanging reference points around which the user can navigate.

- **Intuitiveness:**
  - The most important quality of good user interface design is intuitive.
  - Intuitive user interface design is one that is easy to learn so that user can pick it up quickly and easily.
  - Icons and labels should be concise and cogent. A clear unambiguous icon can help to make user interface intuitive and a good practice is make labels conform to the terminology that the application supports.

- **Prevention:**
  - A good user interface design should prevent users from performing an in-appropriate task and this is accomplished by disabling or “graying cut” certain elements under certain conditions.

- **Forgiveness:**
  - This quality can encourage users to use the software in a full extent.
  - Designers should provide users with a way out when users find themselves somewhere they should not go.

- **Graphical User Interface Design:**
  - A graphic user interface design provides screen displays that create an operating environment for the user and form an explicit visual and functional context for user’s actions.

- It includes standard objects like buttons, icons, text, field, windows, images, pull-down and pop-up screen menus.

1.7 DESIGN PRINCIPLES AND THEIR IMPORTANCE

Definition: Design is an art form, a method of human expression that follows a system of highly developed procedures in order to imbue objects, performances, and experiences with significance.

➢ Contrast:

Contrast refers to how different elements are in a design, particularly adjacent elements. These differences make various elements stand out. Contrast is also a very important aspect of creating accessible designs. Insufficient contrast can make text content in particular very difficult to read, especially for people with visual impairments as shown in the below figure 1.3.

Fig. 1.3 : Contrast principle in designing

➢ Balance:

Every element of a design—typography, colours, images, shapes, patterns, etc.—carries a visual weight. Some elements are heavy and draw the eye, while other elements are lighter. The way these elements are laid out on a page should create a feeling of balance as shown in the figure 1.4.

There are two basic types of balance: symmetrical and asymmetrical. Symmetrical designs layout elements of equal weight on either side of an imaginary centre line. Asymmetrical balance uses elements of differing weights, often laid out in relation to a line that is not centred within the overall design.

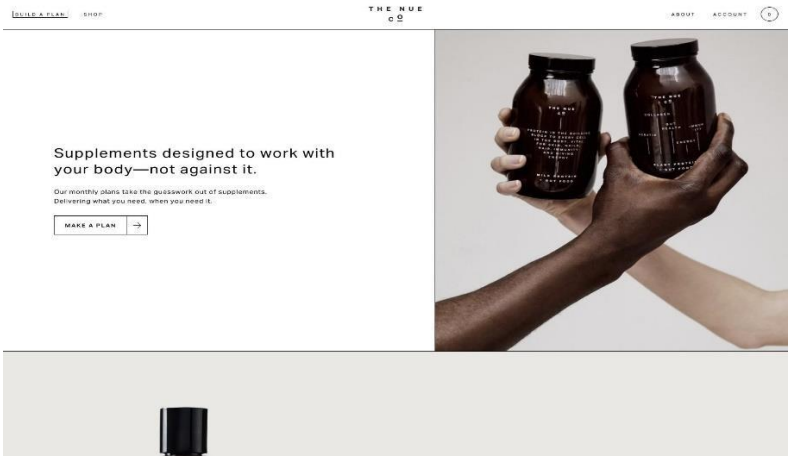

Fig. 1.4 : Balance principle in designing

- **Emphasis:**

Emphasis deals with the parts of a design that are meant to stand out. In most cases, this means the most important information the design is meant to convey as shown in the below figure 1.5.

Emphasis can also be used to reduce the impact of certain information. This is most apparent in instances where “fine print” is used for ancillary information in a design. Tiny typography tucked away at the bottom of a page carries much less weight than almost anything else in a design and is therefore deemphasized.

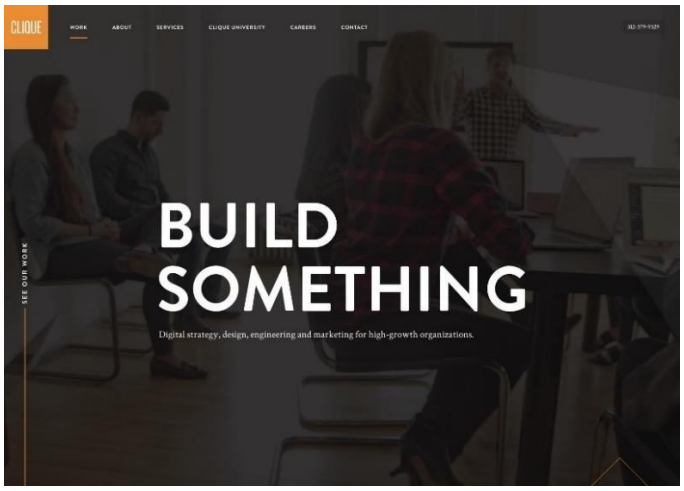

Fig. 1.5 : Emphasis principle in designing

- **Proportion**

Proportion is one of the easier design principles to understand. Simply put, it's the size of elements in relation to one another. Proportion signals what's important in a design and what isn't. Larger elements are more important, smaller elements less as observed in figure 1.6.

Fig. 1.6 : Proportion principle in designing

- **Hierarchy**

Hierarchy is another principle of design that directly relates to how well content can be processed by people using a website. It refers to the importance of elements within a design. The most important elements (or content) should appear to be the most important as observed in figure 1.7.

Hierarchy is most easily illustrated through titles and headings in a design. The title of a page should be given the most importance, and therefore should be immediately recognizable as the most important element on a page. Headings and subheadings should be formatted in a way that shows their importance in relation to each other as well as in relation to the title and body copy.

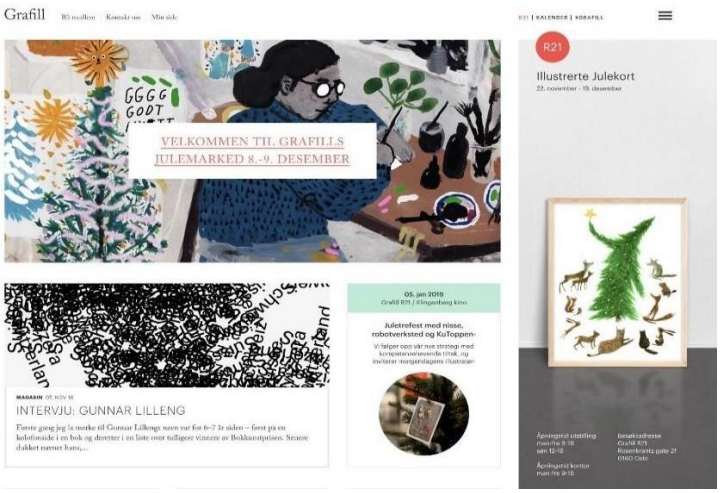

Fig. 1.7 : Hierarchy principle in designing

- **Repetition**

Repetition is a great way to reinforce an idea. It's also a great way to unify a design that brings together a lot of different elements. Repetition can be done in a number of ways: via repeating the same colors, typefaces, shapes, or other elements of a design as observed in figure 1.8.

Repetitions are used in the format of the headings. Each design principle is formatted the same as the others in this section, signaling to readers that they're all of equal importance and that they're all related. Consistent headings unify these elements across the page.

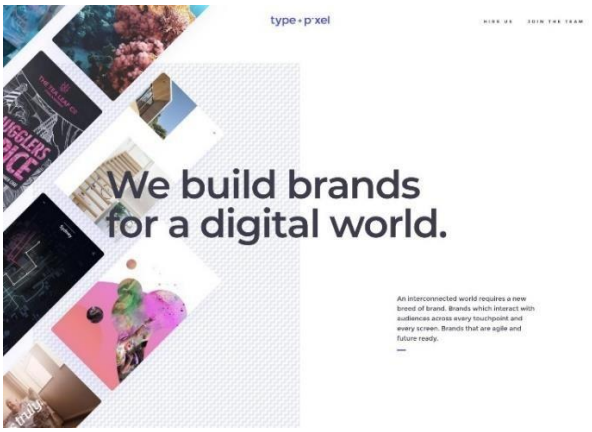

Fig. 1.8 : Repetition principle in designing

- **Patterns**

Patterns are nothing more than a repetition of multiple design elements working together. Wallpaper patterns are the most ubiquitous example of patterns that virtually everyone is familiar with.

In design, however, patterns can also refer to set standards for how certain elements are designed. For example, top navigation is a design pattern that the majority of internet users have interacted with. This example is shown in the below figure 1.9.

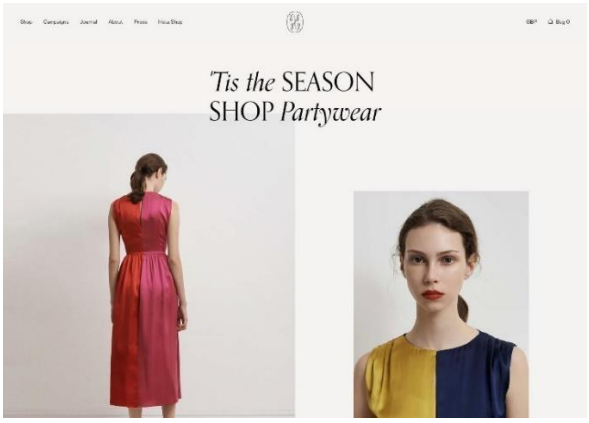

Fig. 1.9 : Pattern principle in designing

- **White space:**

White space—also referred to as “negative space”— is the areas of a design that do not include any design elements. The space is, effectively, empty. Many beginning designers feel the need to pack every pixel with some type of “design” and overlook the value of white space. But white space serves many important purposes in a design, foremost being giving elements of the design room to *breathe*. Negative space can also help highlight specific content or specific parts of a design.

It can also make elements of a design easier to discern. This is why typography is more legible when upper and lowercase letters are used since negative space is more varied around lowercase letters, which allows people to interpret them more quickly as shown in the below figure 1.9.

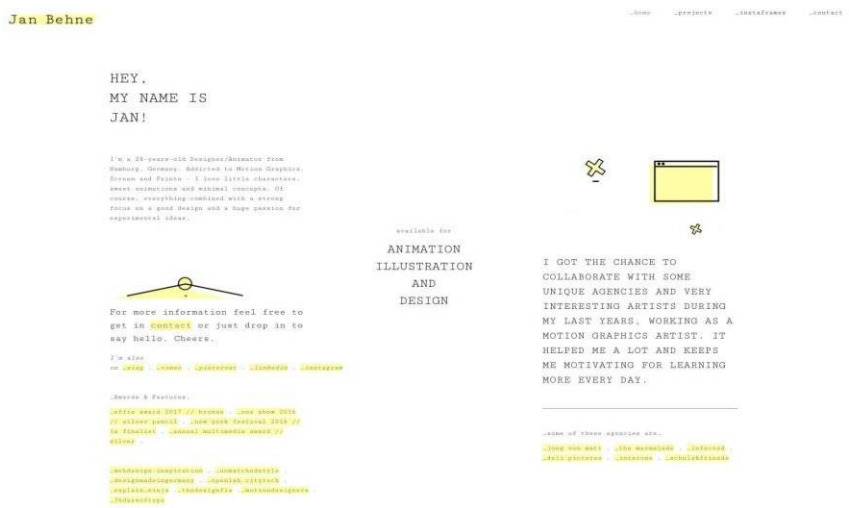

Fig. 1.10: White space principle in designing

- **Variety:**

Variety in design is used to create visual interest. Without variety, a design can very quickly become monotonous, causing the user to lose interest. Variety can be created in a variety of ways, through color, typography, images, shapes, and virtually any other design element as shown in the below figure 1.11.

However, variety for the sake of variety is pointless. Variety should reinforce the other elements of a design and be used alongside them to create a more interesting and aesthetically pleasing outcome that improves the user's experience.

Fig. 1.11: Variety principle in designing

1.8 DIAGRAMS FOR FOOD ORDERING

1.8.1 Flowchart diagram

When the client uses the application for the first time he/she has to register or can also login with their other accounts into the system. The next time login entered username and password will check with the user records in users table in database. In food ordering interface table is associated with spinner tools providing different options of food and restaurants.

In the food table the admin can add new restaurants available and update the cuisines. After the end-user confirms the order of the food, all information is sent to get saved in book table. A notification is received by the user that confirms the order is placed successfully. Admin of system has ability to update cuisine information by adding new restaurants, change user information or delivery information, contact with user in case of an error or order cancellation or any an emergency,

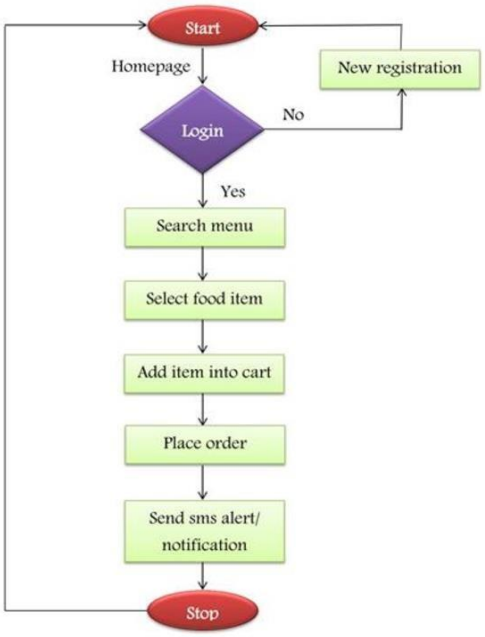

Fig. 1.12: Flowchart for Ordering Food

1.8.2 ER Diagram

The airline has one or more airplanes. An airplane has a model number, a unique registration number, and the capacity to take one or more passengers. An airplane flight has a unique flight number, a departure airport, a destination airport, a departure date and time, and an arrival date and time. Each flight is carried out by a single airplane. A passenger has given names, a surname, and a unique email address. A passenger can book a seat on a flight. The ER diagram is shown in fig 1.13.

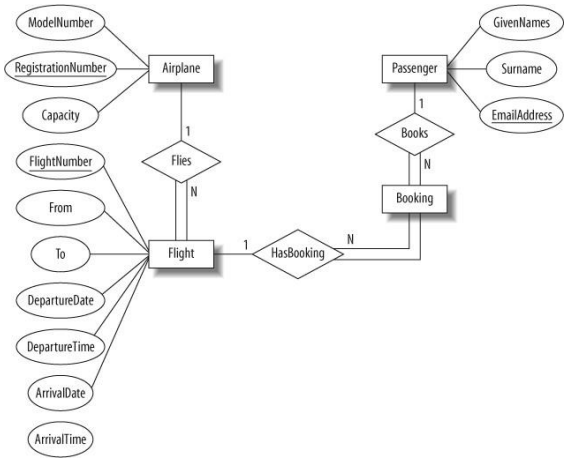

Fig. 1.13: ER diagram for Booking Flight

1.8.2 Class Diagram

Start with main activity class of login function which get user information, then moved to menu class to get ready to book flight. In book flight class check if choses of user fight exist in database to book the required one and move to payment class and confirm the reservation as shown in the figure 1.14.

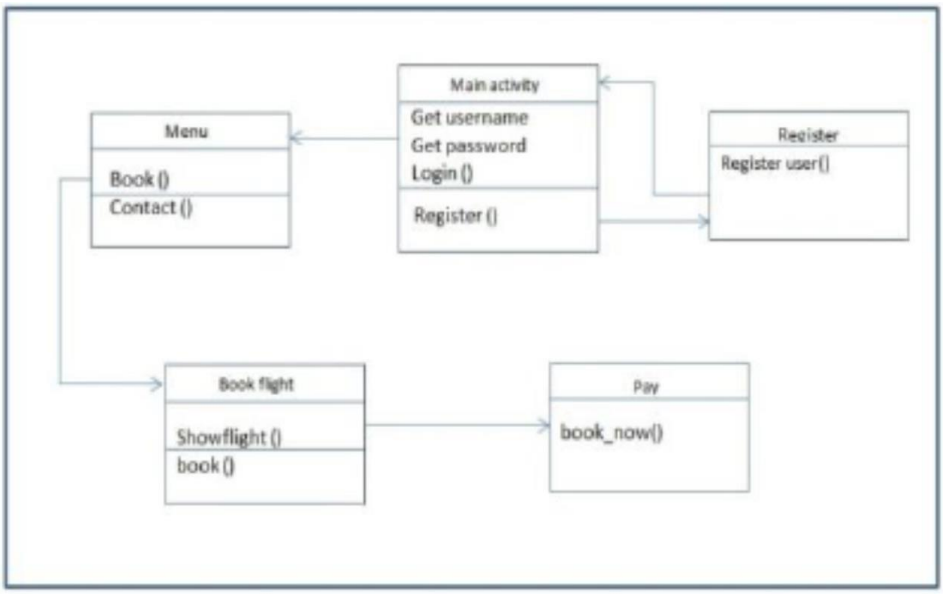

Fig. 1.14: Class diagram for Booking Flight

CHAPTER 2
LITERATURE SURVEY

2.1 REVIEW OF LITERATURE SURVEY

Title : mobile application for airline reservation system
Author : Oyelade 0. J. in (2009), Olaniyi in (2010) , Pranjali kharwade (2014)

Oyelade proposed system was produced utilizing the Wireless Markup Language (WML) as frontend, MySQL 4.0 database administration framework as back-end and PHP (Hypertext Preprocessor) as the server-side scripting language, while Olaniyi depended on .NET framework and MY SQL 2005 database management system for the back-end. And Pranjali introduced android application for ticket reservation and validation using mobile tower network. The system used SQL lite database and served as medium for people to book a ticket to travel through metros or locals.

Title : android application for ticket booking
Author : Ahmed K. Ibrahim and Azman B Ta'a and Subarnarekha Ghosal
Year : 2015

Ahmed developed a prototype of mobile bus ticketing system (MBTS) in Iraq using agile software development approach and Unified Modeling Language (UML) using Phonegap framework. Also JavaScript, jQuery mobile, HTML5, and CSS3 on mobile side also applied. Besides that, MySQL Database and PHP on the server side with RESTful used to serve a mobile application request. While Ghosal presented Android Suburban Ticket (ASR), A CLOUD database is used to store user data for security purpose, java language used to implement the system with PHP development framework.

Title : dynamic web application for reservation system
Author : Pooja Gautam, in 2015 and Chintan Shah, Wenbin Luo in 2016

Here, databases SQL lite, programming languages Python and JavaScript as well as using local server in Django to run the application. Chintan's workshop reservation system used an Apache web server hosting that understands PHP scripting language and is connected to a MySQL database, which decreased the amount of paperwork, time, and effort which spent by an attendee on registration operation. It can also reduce the errors resulted of the manual registration process.

Title : Development of a Mobile Airline Reservation System
Author : Overlade 0. J., Fatumo SA, Azeta A.A. and Ayo CK.
Year : 2009

Currently, numerous individuals and organizations are grasping the mobile aircraft reservation system. Reservation systems had been actualized in numerous parts of the world for quite a long time, at first from manual to electronic reservation system. Portable, airline, transport ticketing and mechanized reservation systems are adequately expanding in the market. Because of the wild rivalry in the airline area, associations inside this segment are creating systems that will enhance their services to customers.

Subsequently, a mechanized seat reservation system has kept on being an open territory of research. The target of this paper is to build up a portable airline situate reservation system that will help general society in picking up a simpler and speedier path for situate reservation and furnishing them with more alternatives to book a ticket for traveling on real time.

CHAPTER 3

AIM AND SCOPE OF THE PRESENT INVESTIGATION

3.1 AIM OF THE PROJECT:

The main objective of this project is to design the food ordering app screens using Figma software which is an application of UI/UX design in which the interactions can be done by connecting the links between two frames.

3.2 SCOPE OF THE PROJECT:

- It plays an important role in food industry to maximize sales of delicious food, increased the number of valuable customers and also improving the brand image of the restaurants.
- It saves time and is Safer than dining in (thanks to Contact-free deliveries)
- Internet access is acquired
- It will be more convenient for customers to order food from anywhere
- **Software Requirements**

  Operating System: Windows 8 and above (64-bit)

  Tool used: Figma
- **Hardware Requirements**

  Processor: i3 and above

  RAM : 4GB and above

3.3 PROJECT IMPLEMENTATION

- Open the Figma software
- Create multiple frames on the screen. Rename the frames according to the task done on that particular frame.
- Try using different tools within the frame such as rectangle, ellipse, polygon, arrow, line and so on.
- Click on the tool (rectangle, ellipse, polygon, arrow, line and so on) for twice and use pen to edit the specific tool to any form that is needed.
- Some changes can be done in order to meet the customer needs/requirements such as text size, spacing in between the text, alignment, colors and so on.
- Filling the color in the design can be done in many ways like placing image

within it, by adding solid colors and so on.

- Importing the icons can be done by right clicking on the screen and click on plugins then move to browse in community where there are some apps to be installed to import icons directly on to the screen which can be editable and has clarity. Use unsplash to insert beautiful images on to the screen.
- Interactions can be done by connecting two frames which help to interact one frame with another.
- Use the comment tool for giving feedback and to tweak the designs.
- Login into the account with password or OTP in the app (Tourexa). If the user doesn't remember the password then the user needs to reset the password or the user can also choose the option to login with OTP. If the user doesn't receive the OTP, click on
- If the user doesn't have any account, then the user must register in the app to order the food and proceed for further processes.
- After logging in, the page redirects to the home page of the app. Click on the search button for the particular cuisine or restaurant and press on search button for listing the available dishes in the listed restaurants.
- Click on the available cuisine and get the details of the food in the food description page. Add the order details into the fields and then move onto the payment process and confirm the order to be placed. After the confirmation of the order, check with the notification in the cart as well as in the notification page.
- If the user is willing to change the password , then the user needs to update the password from the option available in the profile page.

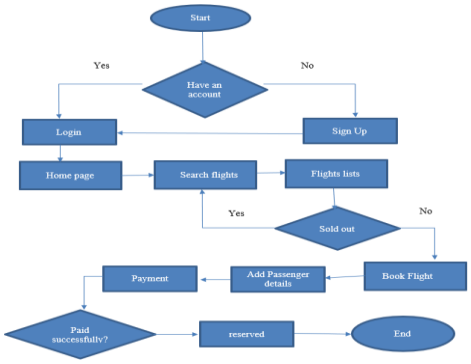

Fig 3.1 : Online Flight Booking Process

CHAPTER 4

EXPERIMENTAL OR MATERIALS AND METHODS, ALGORITHMS USED

4.1 FIGMA

Figma is a vector graphics editor and prototyping tool which is primarily web-based, with additional offline features enabled by desktop applications for macOS and Windows. The Figma mobile app for Android and iOS allow viewing and interacting with Figma prototypes in real-time mobile devices. Figma, InVision, and Marvel are all examples of online collaboration tools that designers and developers use to build digital products.

4.2 TOOLS IN FIGMA

The toolbar contains a variety of tools and functions you might use when in Figma. What appears in the toolbar depends on what you have selected on the canvas. Access the toolbar at the top of your screen in Figma.

4.2.1 Menu

Click the menu icon to access the main menu. The menu contains Figma's search feature and various other functions organized in the menu. Search by name, or browse by general section (e.g. file, Edit, View, etc). If there is a keyboard shortcut for the function you're trying to perform, Figma will list it next to the setting.

- Back to Files: Open the file Browser in the current location.
- File: Perform file-level permissions, including importing and exporting.
- Edit: Access undo/redo, copy/paste, and advanced selection functions.
- View: Control view settings for layout grids and rulers, perform zoom functions, and navigate within a file.
- Object: Apply object-level functions like grouping, framing, rotating, and more.
- Text: Format text with bolds or italics, and set size, height, and spacing.
- Arrange: Tidy up objects with alignment and distribution functions.

- Plugins: View, manage, and run any plugins you have installed.
- Integrations: View, manage, and use any applications you have connected.
- Preferences: Adjust your preferences.
- Libraries: Open the Library model

4.2.2 Move and Scale tools

When you open files in the Editor, Figma will select the Move Tool V by default. The Move tool allows you to select and reorder layers in the Layers Panel, or move objects around on the canvas. Click the arrow to the right of the Move Tool to access the Scale tool K. This allows you to resize entire objects or layers.

4.2.3 Frame and Slice tools

Use the keyboard shortcuts A or Fto select the frame tool. Create a frame with your own dimensions in the canvas, or select a frame size from Figma's presets in the right-hand panel. Click the arrow next to the frame tool to access the Slice tool. The Slice tool allows you to specify a region of the screen you want to export. Use the keyboard shortcut S to select the Slice tool.

4.2.4 Shape tools

In addition to drawing your own shapes using the Pen Tool, there are number of default shapes you can use in Figma. Click the drop down menu to choose from:

- Rectangle R
- Line L
- Star
- Place Image
- Arrow Shift L
- Ellipse O
- Polygon

4.2.5 Pen and Pencil tools

The Pen tool P allows you create custom shapes and icons. Build complex Vector Networks using vector paths, anchor points, and bezier curves. The Pencil tool allows you to add freehand drawings or annotations to your design files. Figma will apply some basic smoothing to any paths you create with the Pencil tool. Press the Enter/Return key to edit the path and any anchor points in Vector Edit mode. (Windows: Shift P).

4.2.6 Text tool

Text is one of the crucial components of interface design. Everything from the placement and arrangement of text to the choice of font, has a part to play. Select the Text tool from the Toolbar, or press the T key to add text layers to your file.

- Click once in the canvas to add a text layer that grows horizontally
- Click and drag to create a text layer that is fixed in size

4.2.7 Hand tool

The Hand Tool allows you to click around within a file without accidentally activating hover outlines, making selections, or moving objects. If you're using Figma on a device with a touch screen, the Hand Tool allows you to pan around a file using your fingers.

4.2.8 Comment tool

The Comment tool allows you to quickly exchange ideas with collaborators. Use comments to respond to feedback, tweak your designs and iterate faster - all from the original design file. Comments are accessible to anyone with view or edit permissions to the file.

4.3 Frame Tool

If you're designing for a specific device or screen size, you may want to create a container for your designs. This is where frames come in. Framing refers to how

the primary subject of a design is placed in relation to other elements on the page. It’s most often heard referred to in cinematography or photography, with how the main focus of an image is placed within the overall image. But the principle carries over into design.

Frame properties

There are a few properties associated with frames. Frames support the following properties.

- Corner Radius: Round the corner of a frame to create softer edges.
- Clip Content: Hide any objects within the frame that extend beyond the frame's bounds.
- Layout Grids: Create guidelines to help with the visual structure to your designs.
- Auto Layout: Create dynamic Frames that respond to their contents
- Fill: Apply a Solid Fill, Gradient, Images (PNG, JPEG, GIF, TIFF and WEBP) to a Frame.
- Stroke: Add strokes to a Frame to create a border or outline
- Effects: Add a shadow or blurs to a Frame

Extra functionality

Frames allow you to access extra functionality in Figma. You will need to use Frames to use the following features or functions:

- Layout Grids: Apply transparent grids, columns, and/or rows to Frames to provide visual structure
- Constraints : Define how child objects respond when you resize a Frame. Apply Constraints to objects within a Frame.
- Auto Layout: Add Auto Layout to Frames to create dynamic layouts that respond to their contents

- Prototyping: Create interactive prototypes that move between Frames in your Canvas

A Frame is a parent object. This means that it can control or influence any child objects you place within it.

4.3 METHODS

- **Prototypes** replicate how users might interact with your designs. You can make connections between frames to create flows, or pathways, through an interactive design
- **Typography** refers to the way text is arranged in a design. That includes the fonts used, their spacing, size, and weight, and the way different text elements relate to each other. Good typographic design is heavily influenced by all of the other design principles mentioned earlier in this article.

- The **use of color** in design is one of the most psychologically important parts of a design and has a huge influence on user experience. Color psychology and theory heavily influences some of the other principles mentioned earlier.

- **Grid and alignment** are closely related to balance and refer to the way elements are arranged in relation to an invisible grid on the page.

- **Shape** is also a major part of any design, both in terms of specific shapes used as elements within the design, and the overall shape of the design itself. Different shapes can evoke different feelings, i.e circles are organic and fluid, while squares are more rigid and formal, and triangles give a sense of energy or movement.

- **Feather** is a collection of simply beautiful open-source icons. Each icon is designed on a 24x24 grid with an emphasis on simplicity, consistency, and flexibility. Insert beautiful images from **Unsplash** straight into your designs.

Fig 4.1 : Feather icons - Plugins

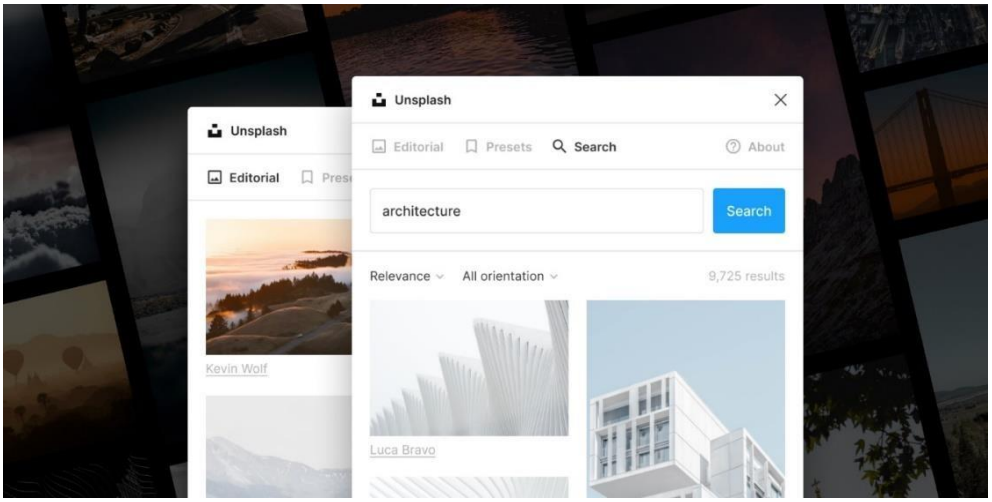

Fig 4.2 : Unsplash - Plugins

- **Create a connection**
  - ➢ The connection consists of three parts:
    - Hotspot: where the user's interaction will take place. A hotspot can be the frame itself, or an object within the frame. You can create a hotspot on anything, like a button, icon, or heading.
    - Connection: the arrow or "noodle" that connects the hotspot to the destination. Both the Interaction and Animation are determined through the connection.
    - Destination: the next step in our prototype where a connection ends. In most cases, the destination must be a top-level frame. Only

connections using the Scroll to action can be set to a destination within the same top-level frame.

- Navigate to the Prototype tab of the right sidebar.
- Select a layer or object for the connection's hotspot.

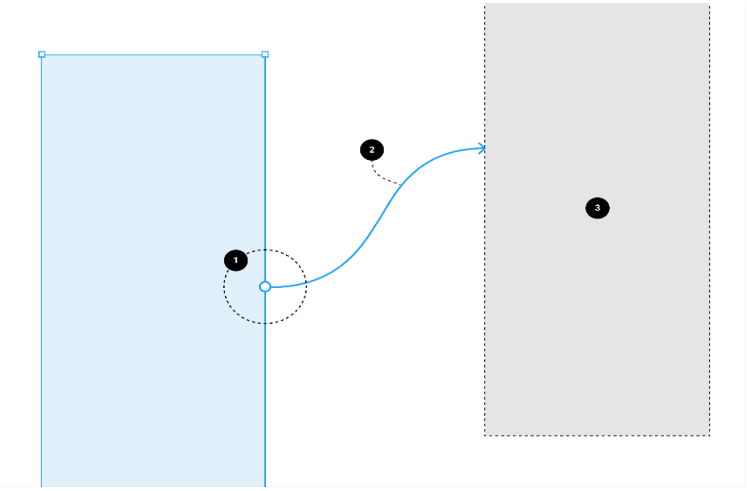

Fig 4.3 : Creating a connection

- **Create an interaction**

After creating a connection, define the type of interactions users can have with it. Multiple interactions can be done from the same layer or object.

- Navigate to the Prototype tab of the right sidebar.
- Select a layer or object for the connection's hotspot.
- Click the on the right of the frame's bounding box and drag it to the destination frame. You can also click the in the Interactions section of the Prototype panel, then select the destination frame using the dropdown menu.
- Once the connection has been made, use the Interaction Details panel to adjust the trigger, action, and destination.

- **Triggers**

The Trigger determines what type of interaction with the hotspot will cause the Prototype to advance. This could be a mouse or touch interaction like

tap, drag, click, and more. While most of these transitions are self-explanatory, we have a few tips for how you can use them.

- **On Click/On Tap**

- Triggers the action when the user Clicks (desktop) or Taps (mobile) on a hotspot in prototype. There is a possibility to add click or tap triggers to lots of different elements in a screen.

- They can be used for navigation like opening links, using menus, or exploring websites. They can also be used when a user needs a another user to click on buttons, fill in forms, or confirm and dismiss alerts.

- **On Drag**

  - Allows a user to perform an action when you drag an element on the screen. This can be the entire frame or a single element like a slider.

  - A user can use the On Drag in any direction: Left, Right, Up or Down. This is great for simple swipe gestures, or for more complex animations like a drag to refresh.

  - Drag allows a user to move back and forward through the transition. This creates a continuum, instead of performing the action after a swipe gesture.

- **While Hovering**

  - Triggers the action when a user hover over the hotspot. You can use this to replicate tooltips, on-screen prompts, or changes in state.

  - A user will return the another user to the original frame when they move the cursor off the hotspot. This makes it a great interaction when a user don't want to take users away from the current screen.

- **While Pressing**

  - Triggers the action when a user clicks and hold the mouse or trackpad on a desktop. Or, when you tap and hold on a mobile device.

  - A user can use this trigger for navigating drop-down menus, or replicating long-press interactions like viewing a preview using 3D Touch on iOS.

  - When released, the user will take the another user back to the original Frame. This makes it great for Overlays that capture temporary interactions or state changes.

- **Keyboard and Gamepad Shortcuts**

  - The Keyboard / Gamepad trigger lets a user to replicate interactions with a keyboard shortcut. This applies to user inputs from keyboards, controllers, and gamepads.

  - A trigger can be a single key or button, or a combination of keys.

  - For example: a trigger can be based on the user pressing the Enter key or ⨉ button on a controller. Or using a shortcut like Shift K.

- **Mouse Enter**
  - This shows the Destination frame when the mouse enters the hotspot area. This could be a small area like a button, or an entire section of the screen.

  - A user could use this to expose the options in a drop down menu as a user mouse enters the field. The menu will stay open until the user performs another interaction like selecting an item or clicking out of the field.

- **Mouse Leave**

- This shows the Destination frame when the cursor leaves the hotspot area.

- A user could use this for on-screen prompts, like an alert when a user haven't completed a field or checked a box.

➢ **Mouse Down (Touch Down)**

- This triggers the Destination frame when you first press the mouse or touch pad. For mobile devices, this is when the user's finger first touches the hotspot.

➢ **Mouse Up (Touch Up)**

- This triggers the Destination frame when a user releases the mouse or touch pad. For mobile devices, this is once the user's finger no longer touches the Hotspot.

  - Apply the Mouse Down trigger to the menu header to open an Overlay.
  - Apply the Mouse Up interaction to the menu item in the Overlay.
  - When they release the mouse, a user takes the another user to the relevant Frame.

➢ **After Delay**

- The After Delay trigger allows a user to trigger an action after the user has spent a certain amount of time on a given frame. A user will need to set the duration of the delay in milliseconds (ms). A user can only apply this to a top-level Frame, not a specific layer or object.

CHAPTER 5

RESULTS AND DISCUSSION, PERFOMANCE ANALYSIS

5.1 ONBOARDING SCREENS

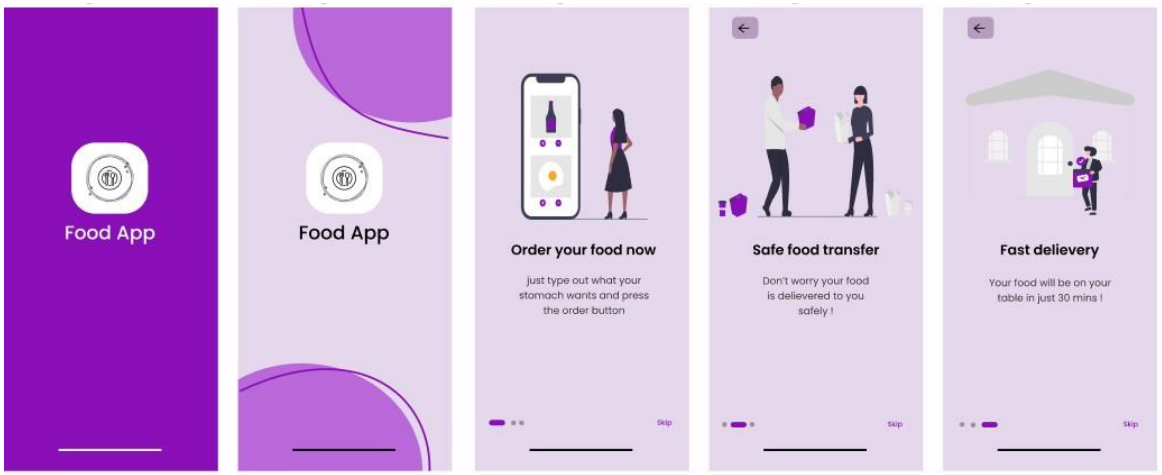

Fig 5.1: Launch Screens

Launch screen is also referred to as a “splash screen”, this is the very first thing your app users will see when they click to open up your app — as such, its importance should not be underestimated! It's the very first chance of creating a positive impact on the users. It appears while the app is loading when the user has just opened up the app.

To design this, create a frame which has child objects like region tools and the text. To edit the region tool, double click on it so that a user can edit the design to any shape. Import the icons (like battery, message, Wi-Fi) from the feather icon from plugins. Add colors to the design by using the fill option. Rename the frame for easy readability and searching.

5.2 LOGIN PAGE

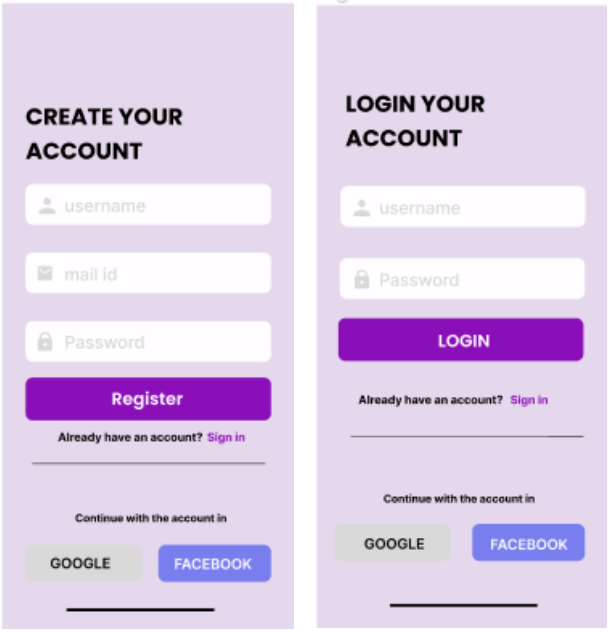

Fig 5.2: Login Page (signup or login)

The login page allows a user to gain access to an application by entering their username and password or by authenticating using a social media login. A Login form is used to enter authentication credentials to access a restricted page or form. The login form contains a field for the username and another for the password. When the login form is submitted its underlying code checks that the credentials are authentic, giving the user can access the restricted page.

To design this, create a frame which has child objects like region tools and the text. To edit the region tool, double click on it so that a user can edit the design to any shape. Import the icons (like battery, message, Wi-Fi) from the feather icon from plugins. Add colors to the design by using the fill option. Rename the frame for easy readability and searching. Create connection between the frames or buttons to the other frames that is nothing but develop the interactions with the frames.so that when a user clicks on that button it directs to the that particular page/frame. Here, clickable links are Forgot password, Login, Sign Up, Login with Google or Facebook accounts.

5.3 HOME SCREEN / LANDING PAGE

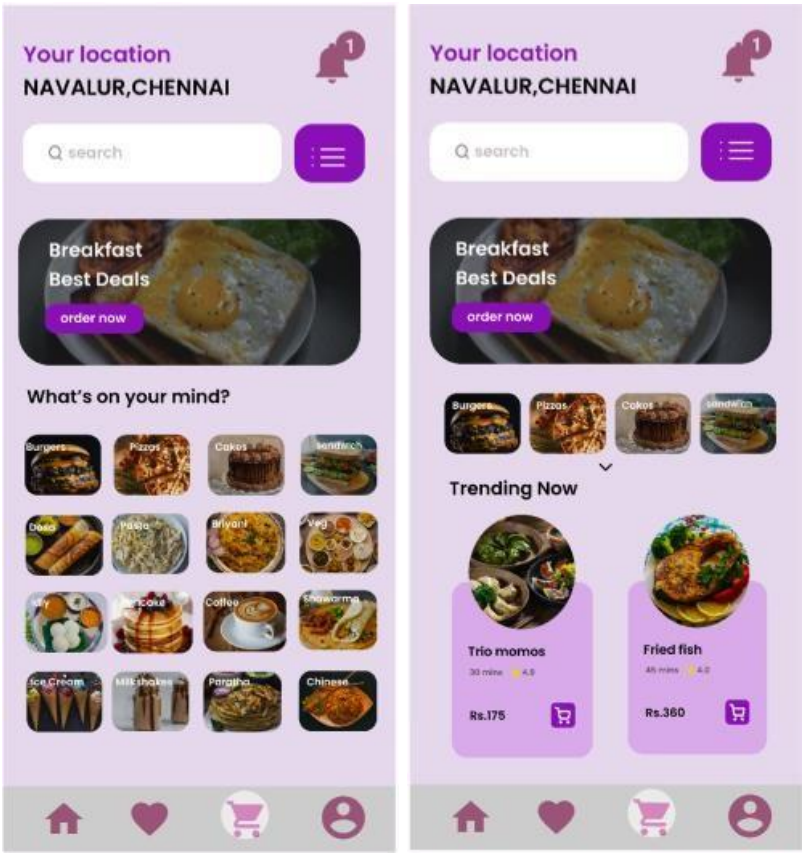

Fig 5.3: Home Pages

The home screen is the homepage / start screen that customer sees when the app is first opened. The blocks of your app are accessed via the home screen. This page is also used for showing of your brand, mostly via the background image. The most important choice to make is the view or navigation style.

To design this, create a frame which has child objects like region tools and the text. To edit the region tool, double click on it so that a user can edit the design to any shape. Import the icons (like battery, message, notification, Account information, help, Wi-Fi) from the feather icon, iconify from plugins. Add colors to the design by using the fill option. Rename the frame for easy readability and searching. Create connection between the frames or buttons to the other frames that is nothing but develop the interactions with the frames. So that when a user clicks on that button it directs to the that particular page/frame. Here, the clickable links are Trending cuisine, food menu and My account.

5.4 PROFILE PAGE

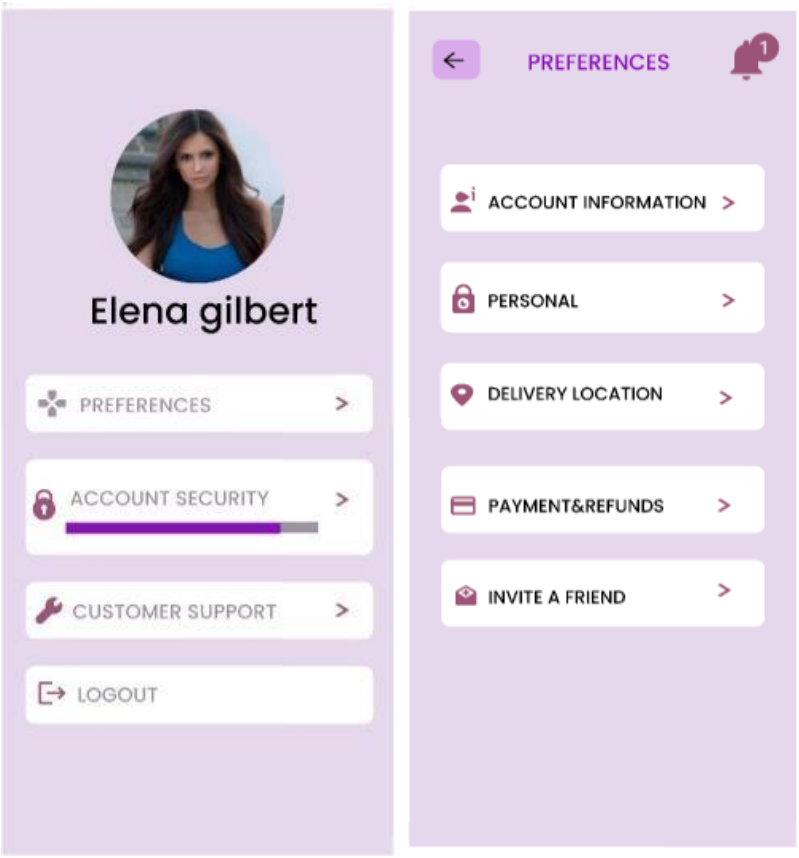

Fig 5.4: Profile screens

To design this, create a frame which has child objects like region tools and the text. To edit the region tool, double click on it so that a user can edit the design to any shape. Import the icons (like preferences, security, notification, Account information, invition, location icon) from the feather icon, iconify from plugins. Add colors to the design by using the fill option. Rename the frame for easy readability and searching.

Create connection between the frames or buttons to the other frames that is nothing but develop the interactions with the frames. So that when a user clicks on that button it directs to the that particular page/frame. Here, the clickable links are account information, customer support, account security, payment and refunds and logout .

5.5 FOOD DESCRIPTION

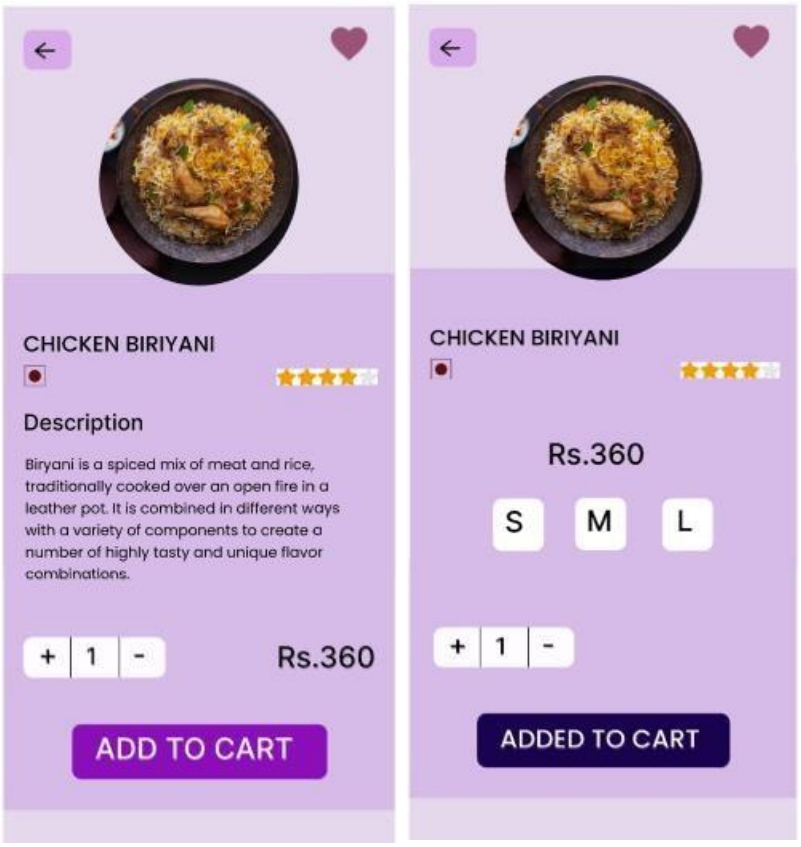

Fig 5.5: Food Details

To design this, create a frame which has child objects like region tools and the text. To edit the region tool, double click on it so that a user can edit the design to any shape. Import the icons (like heart, non-veg logo, ratings) from the feather icon, iconify from plugins. Add colors to the design by using the fill option. Rename the frame for easy readability and searching.

Create connection between the frames or buttons to the other frames that is nothing but develop the interactions with the frames. So that when a user clicks on that button it directs to the that particular page/frame. Here, the clickable links are quantity of food, add to cart option and backward arrow option.

5.6 SEARCH CUISINES & RESTAURANTS

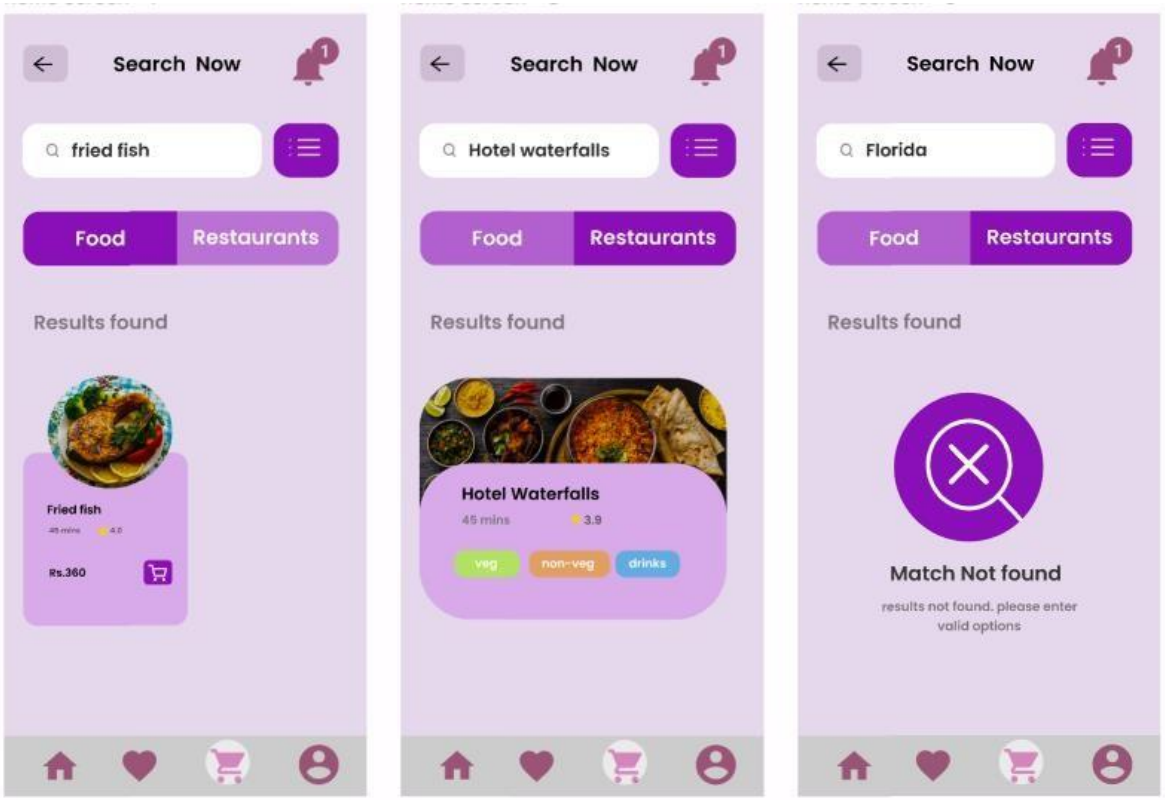

Fig 5.6: Search For Different Options

Here the clickable links are notification icon, left-arrow, search icon and switch tab for food and restaurants. To design this, create a frame which has child objects like region tools and the text. To edit the region tool, double click on it so that a user can edit the design to any shape. Import the icons (bell icon, preference icon, cart icon, profile icon, home icon) from the feather icon, iconify from plugins. Add colors to the design by using the fill option.

Rename the frame for easy readability and searching. Create connection between the frames or buttons to the other frames that is nothing but develop the interactions with the frames. So that when a user clicks on that button it directs to the that particular page/frame. On searching for particular cuisine or restaurant, the results are displayed and incase if the results didn't match then the same is reported.

5.7 CART PAGE

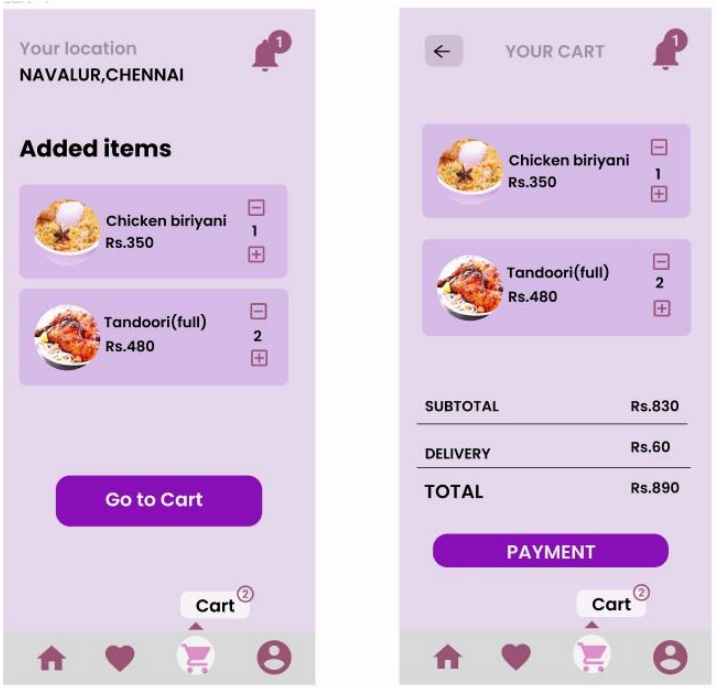

Fig 5.7: Cart screens

Here the clickable links are notification icon, left-arrow, search icon and switch tab for food and restaurants. To design this, create a frame which has child objects like region tools and the text. To edit the region tool, double click on it so that a user can edit the design to any shape. Import the icons (bell icon, preference icon, cart icon, profile icon, home icon) from the feather icon, iconify from plugins. Add colors to the design by using the fill option.

Rename the frame for easy readability and searching. Create connection between the frames or buttons to the other frames that is nothing but develop the interactions with the frames. So that when a user clicks on that button it directs to the that particular page/frame. On choosing the preferred cuisine from the preferred restaurant the item gets added to the cart to procced further for the payment and delivery.

5.8 PAYMENT METHODS

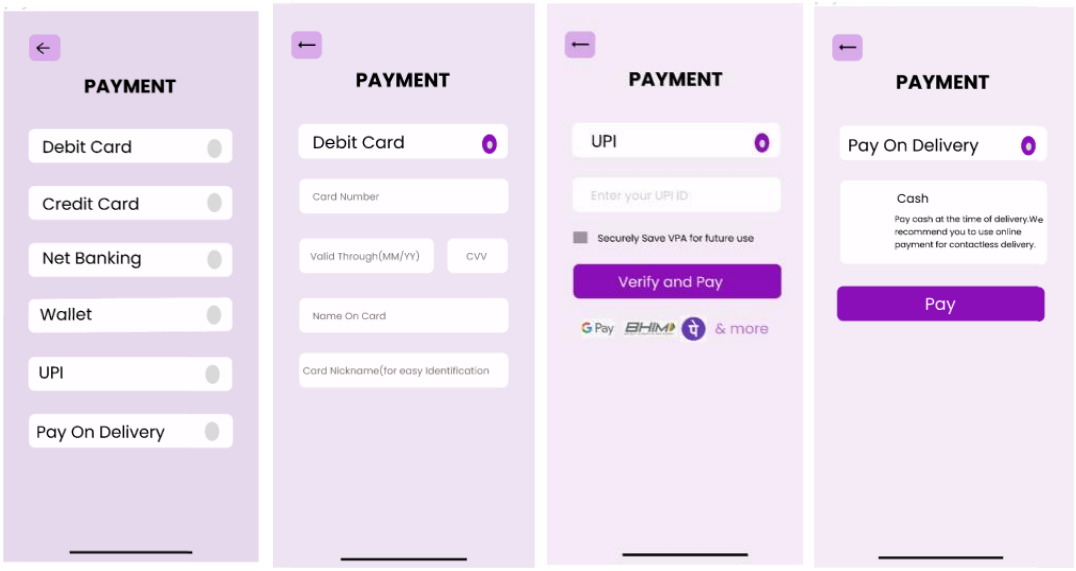

Fig 5.8: Online payment methods

Here the clickable links are left-arrow, Details. There are many payment methods available through which users can pay based on their comfort. Users need to enter the details of the card if they are paying through card. On clicking the pay button, it says that your order id placed. To design this, create a frame which has child objects like region tools and the text. To edit the region tool, double click on it so that a user can edit the design to any shape. Import the icons (like gpay, phonepay, bank names etc..) from the feather icon, iconify from plugins. Add colors to the design by using the fill option.

Rename the frame for easy readability and searching. Create connection between the frames or buttons to the other frames that is nothing but develop the interactions with the frames. So that when a user clicks on that button it directs to the that particular page/frame.

5.9 Notification Screens

Fig 5.9: Notification page

Here the clickable links are notification icon, left-arrow, back arrow icon and switch tab for delivery and update notifications. To design this, create a frame which has child objects like region tools and the text. To edit the region tool, double click on it so that a user can edit the design to any shape. Import the icons (bell icon, preference icon, cart icon, profile icon, home icon) from the feather icon, iconify from plugins. Add colors to the design by using the fill option.

Rename the frame for easy readability and searching. Create connection between the frames or buttons to the other frames that is nothing but develop the interactions with the frames. Notification keeps an user updated with his/her orders and also intimates them about their rewards and offers.

CHAPTER 6

SUMMARY AND CONCLUSIONS

Many frames are created for designing the application such as cuisine menu, payment, profile update, search restaurants, landing page, login page, sign up, reset password, change password and so on. To develop a good design, a user needs to maintain the typography, spacing between the words/text and the coloring part in designing.

It helps to easily understand and view the contents in detail with effective design. it is easy to order food from your favorite restaurant. It saves more time and money. Provides every information about food ordered. It maximizes the efficiency. There are many apps based on food ordering theme. In this project, a prototype is being developed to know the functionality of the app that is designed for ordering food online.

The user must login into the app, if the user doesn’t have an account, then the user is requested to sign up/register and the page redirects to the login page. The user must enter the email address and password to get access to the app. After logged in, the user can scroll through different options available , can surf about various cuisines available in different restaurants.

Select the preferred cuisine and search for your menu. Choose the quantity of food required, do check for the food description and finally add your order to the cart. It asks the user to confirm the order and then proceed to order details and then it redirects to the payment page where the user needs to pay the amount for the order based on their own convenient mode of payment. The design of the application is completed successfully.

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