UI/UX DESIGN

A SUMMER INTERNSHIP REPORT

SUBMITTED BY

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BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

SHANMUGANATHAN ENGINEERING COLLEGE

ARASAMPATTI, PUDUKKOTTAI – 622 507

YEAR & SEMESTER : IV & VII

SUBJECT CODE : EC3711 SUMMER INTERNSHIP

COMPANY : THE MIND IT ,Trichy

ANNA UNIVERSITY::CHENNAI 600 025

NOV/DEC 2024

ANNA UNIVERSITY : CHENNAI 600 025

BONAFIDE CERTIFICATE

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EXTERNAL EXAMINER

ACKNOWLEDGMENT

At this pleasing moment having successfully completed our internship report, we wish to convey our sincere thanks to our beloved chairperson **Mrs.PICHAPPA VALLIAMMAL**, correspondent **Dr. P.MANIKANDAN B.E,**Director(Academic) Shri **M.SHANMUGANATHAN**, Director(Administration) Shri **M. PICHAPPA** and honourable secretary **Mr. M. VISWANATHAN** for their extensive support.

I thankful to our principal **Dr. KL. MUTHURAMU M.E(W.R)., M.E(S.E)., Ph.D., FIE., M.I.S.T.E**., Shanmuganathan engineering college, for providing the opportunity to conduct our project.

I extend our gratitude to **Dr. A.MUTHU MANICKAM M.E., Ph.D**., the head of the department and our internship co-ordinator of Electronics and communication engineering for providing a valuable suggestion and supports given through the study.

I also express my heartfelt thanks to all other staff members of Electronics communication engineering Department for their support. Above all, we thank our parents, for affording us the valuable education till now.

ABSTRACT

This project is an UI/UX design of an app using a program called Figma. The objective of this project is to design a fully functional user interface of an app. The idea of this project is to design user interface for a Video Streaming App like Netflix, Amazon Prime, etc.The objective of this project is to design a fully functional User Interface for a video streaming app.The program that will be used for designing this project will be Figma. The goal is to design a minimalistic and clean looking User Interface. And the User Experience must be very fluid and useable.All the bugs and glitches must be fixed and must be optimized for the targeted platform.In evaluating the usability of mobile video streaming applications, the performance of the applications comes into focus. This is because the performance of mobile streaming applications affects their usability.Streamy is a video streaming app which is designed considering the current user problems with this domain. Its main goal was to design better user experience and ease of use. A competitive analysis allows us to find out if there are any gaps in the market and to find out what client competitors are doing. I started to look at a few competitors or similar platforms,to analyze UI, UX, User flow, IA and key features. I considered Netflix, Amazon Prime, and Hotstar as my competitors to start my research.

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CHAPTER 1 INTRODUCTION

Introduction to UI/UX:

The term UI/UX stands for user interface/user experience design and refers to the practice of designing digital products with a user-first approach. In other words, the point of UI/UX design is to create a product that will be both visually appealing and highly pleasant to interact with. A common misconception is that UI and UX come down to the same thing and that they are just one discipline, but that is not entirely true. They are separate disciplines that focus on different aspects of the user's journey with a digital product. However, they overlap in many ways and are so closely connected that they've largely merged into one profession.

UI design relates to the appearance and feel of a digital product. It focuses on visual factors like buttons, fonts, colour schemes, images, interactive elements, etc.So, what is user experience design, then? Well, it refers to the experience a user has interacting with your product. Its main focus is enabling seamless goal achievement for users.You can look at the difference through the example of a car. The UX would be the mechanics of your car, like engine power, transmission type or fuel consumption. The UI would be the aesthetics, such as the livery, paint, rims, dashboard or seats. Or, you can imagine furnishing a home; think of the UX designer as the construction manager, and the UI designer as the interior designer.Ultimately, the final product is meant to be pleasant-looking, functional and give users a fantastic experience in terms of performance and navigation.

History of UI/UX:

We talk about UX, or user experience, quite a bit. That's because it's a fundamental aspect in the world of web design. To put it plainly, you want your users to have an experience that's worth visiting your site. But UX isn't that new of a term. In fact, the history of UI and UX goes back as far as web design started. Over the years, we've seen the evolution of UX and UI transform the way people use the Internet and traverse websites. Here's a little bit about that evolutionary history. Cognitive psychologist and designer Don Norman coined the term "user experience" in the 1990s—but UX predates its name by quite some decades.

Use of UI/UX :

You can use it to do all kinds of graphic design work from wireframing websites, designing mobile app interfaces, prototyping designs, crafting social media posts, and everything in between. Figma is different from other graphics editing tools.

What's UI design?

User interface (UI) design is about building interfaces with a focus on styling and interactivity.The UI designer's goal is to create an interface the user finds easy to use and aesthetically pleasing. The word "interface" refers to the access point where a user interacts with a software application (e.g., Figma, Sketch), a browser-based website, or a hardware device (e.g., a smartphone

touchscreen). A UI designer explores all the interactions and behaviors a user takes with a product to create an interface that best adapts to the user's needs.

What's UX design?

User experience (UX) design is the process designers use to create products that deliver relevant and valuable experiences to users. According to Don Norman, the co-founder of Nielsen Norman Group and the one who coined the phrase "user experience," the term includes "all aspects of the end-user's interaction with the company, its services, and its products. "UX designers create meaningful experiences by integrating elements of branding, marketing, engineering, design, and usability into a product. Their job requires extensive user research tounderstand their user's mindset, feelings, and goals and to connect this information to the product.

FIG 1.1 UI&UX

INTRODUCTION TO FIGMA

Figma is a collaborative interface design tool that's taking the design world by storm. Unlike Sketch, which runs as a standalone MacOS app, Figma is entirely browser-based, and therefore works not only on Macs, but also on PCs running Windows or Linux, and even on Chromebooks. It also offers a web API, and it's free!

Another big advantage of Figma is that it allows real-time collaboration on the same file. When using conventional "offline" apps like Sketch and Photoshop, if designers want to share their work, they typically have to export it to an image file, then send it via email or instant message.

In Figma, instead of exporting static images, we can simply share a link to the Figma file for clients and colleagues to open in their browser. This in itself saves significant time and inconvenience in a designer's workflow. But more importantly, it means that clients and colleagues can interact more richly with the work, and review the latest version of the file.

There are two ways to run FIGMA:

Web

To run in mainstream web browsers, FIGMA relies on a source-to-source compiler to JavaScript. According to the project site, FIGMA was "designed to be easy to write development tools for, well-suited to modern UI/UX development, and capable of high-performance implementations. When running Figma code in a web browser the code is precompiled into JavaScript using the compiler. Compiled as JavaScript, FIGMA is compatible with all major browsers with no need for browsers to adopt FIGMA. Through optimizing the compiled JavaScript output to avoid expensive checks and operations, code written in FIGMA can, in some cases, run faster than equivalent code hand-written using JavaScript idioms.

App

The Figma mobile app lets you access your files and test prototypes from anywhere. You can also share files, browse multiple workspaces, and mirror frames from your desktop to your mobile device.

How To Use Figma?

As we mentioned earlier, Figma is a web-based app. All you need to start using the app is a desktop computer or a laptop with a good browser and an internet connection. Then you can visit Figma website to register a free account. And you can start working on your designs right away.

Figma has a very beginner-friendly editor where you can create designs from scratch or using premade templates. There are plenty of resources for learning how to use Figma.

CHAPTER 2 AIM AND SCOPE

AIM

Television has become a bygone with the introduction of On-demand video streaming apps. These are attractive to the users as they can have complete control over the videos and can watch shows and videos of their favorite content without any interruptions. A lot of people have already lost interest in the big black box and are slowly turning towards the online platform to watch their shows, series, movies, etc.

The video streaming mobile apps have also witnessed a huge spike in the number of apps that are now available for downloads in the app stores. Catering to the needs of the users, these apps have a lot of content for them to choose from and save it to watch later.

The idea of this project is to design user interface for a Video Streaming App like Netflix, Amazon Prime, etc.

Scope

Greater Market Reach: With cross-platform applications, you can cover the broad user base available on Apple app store and Google play store. You can develop an application that can run on both iPhone and Android that gives you the advantage of having access to a vast pool of potential users.

Easy Marketing: The behaviour of customers are different on different platforms and promoting your brand on multiple platforms with a single marketing strategy is quite daunting. Since iPhone users tend to have a higher purchasing power as compared to Android users, therefore, you need to look for a marketing strategy that caters to a specific set of people. And the cross-platform app provides the liberty to promote various media resources and allow you to appeal to a more extensive section of the potential user base.

Reduce App Development Cost: By leveraging a single codebase, developers can develop an application for both native platforms without having to engage two dedicated development teams.

Codes are Cheaper to Maintain: Since cross-platform applications are developed with a single code base, therefore, businesses from across the world having knowledge of working with crossplatform frameworks. By making changes and updates in one codebase you can easily maintain the app. The final changes will be automatically reflected in all the applications without having to devote extra efforts and time on maintaining the codes.

App Testing is Easier: Instead of running different applications on different platforms, developers can discover errors by merely running a single app on multiple platforms. They won't need to devote long hours on testing each mobile app.

Availability of Better Plugins: Integration of third-party plugins increase the functionality of the application and speed up the process of mobile app development. And all the leading cross platform app development frameworks like Figma, Cordova, React Native, Ionic are open-source technologies that provide a great source of plugins. Developers can choose from the various widgets and can meet the demand of enterprises by customizing the app leveraging useful plugin libraries.

HOW THE APP WORKS

Onboarding – such pages in an app help users get a grip on the app's functionality and understand which main features it provides.

User registration – this is one of the basic and most important features of streaming services like Netflix. Registration via email or social media is the most convenient option for users.

Social sign up and sign in – the ability to log in with the help of social media.

User account – users can view their favorite videos, view history, add new ones to the list, update their user information, and control billing.

Search – an advanced content search that will allow users to filter content by genres, recommendations, release date, etc. Its main goal is to make the search easy and fast for end-users.

Reviews and ratings – the ability to rate content and leave video reviews.

Push notifications – can be used to notify users about new content releases, updates, and billing details.

Payment gateways – integration with Braintree, Stripe, PayPal, Apple, Google Pay, etc., to allow users to pay for content or subscription.

Settings – basic settings should include controlling sound level, activation of subtitles, play and pause options, selection of video quality, and playback speed.

Multi-language support – the ability to choose the language of video playback and turn on subtitles.

Screenshot ban – prevention of making screenshots and video recordings of the screen.

Geo-restriction – ban the use of the service from certain locations.

Download feature – ability to download content to the local storage of devices.

Admin panel – provides the ability for app admins to moderate content and users and perform other back-office operations.

Analytics – features for admins that help analyze how users interact with the application, which features they use, and what content they prefer.

Video quality selection – ability to choose the preferred quality of video content to watch.

IDEATION MAP:

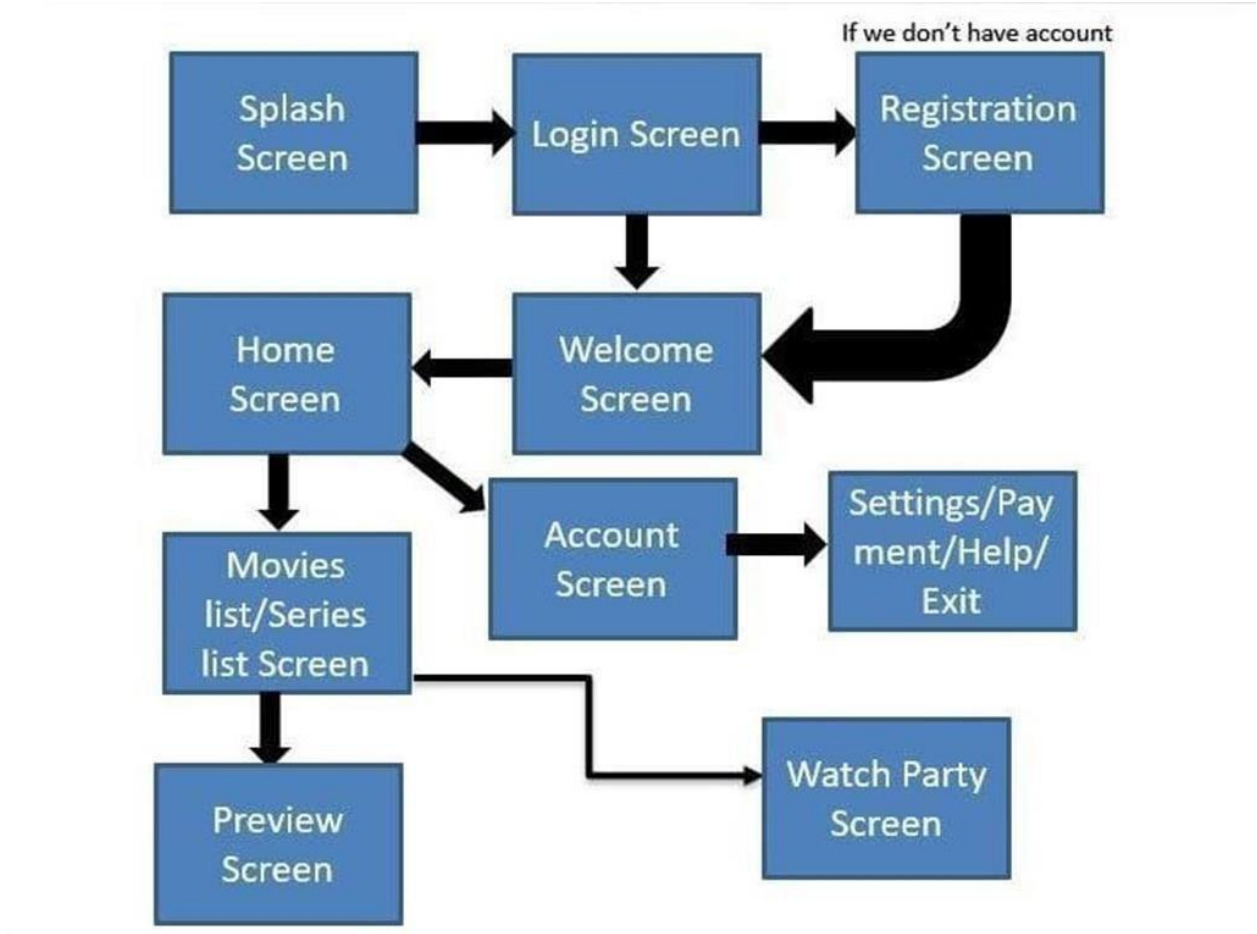

FIG 2.1 IDEATION MAP FOR UI&UX DESIGN

CHAPTER 3 SYSTEM SPECIFICATION AND METHODS

Software and Hardware Requirements:

- 8 Gb Ram or more
- 1280 x 800 minimum screen resolution
- 8 GB of available disk space minimum
- x86_64 CPU architecture; 2nd generation Intel Core or newer, or AMD CPU with support for a Windows Hypervisor
- UI/UX, Java and Figma required
- A virtual device must be installed to run the application(Optional)

Work Environment

Front End Developer: The front-end developers generally work at the client side designing the User Interface of the application and add the requirements.

Back-End Developer: The back-end developer is a person who is responsible for the backend development that interacts with the server. They oversee Firebase applications.

FIG 3.1 GOOGLE CLOUD & CLOUD FUNCTIONS

CHAPTER 4 APP DESIGN STUDY AND ANALYSIS

Analysis

Problems and Solution

There are more problems in developing an app. We faced a lot of challenges while designing the UI also while developing the backend but those problems could be rectified easily

Problems

During the initial phase of development, I faced a lot of hurdles such as the alignment could not be rendered properly, couldn't fix the image properly, the design could end up messy, padding was not set properly. Developing an UI/UX is not an easy task. It takes a lot of creativity, uniqueness and brainstorming sessions to come up with a nice App design. Only an App developer can talk about the challenges they go through on regular basis. App developing which are liked and appreciated by target market and clients are mostly the result of constant development and regressive critical thinking.

On the contrary, there are many challenges faced by UI/UX developers. One such thing is making the app load faster. During the initial phase, the app could face a lot of bugs or could load slowly or could crash. These kinds of things would irritate the client and the app could fail. One of the toughest challenges faced by app designers is making sure the app works perfectly fine and doesn't crash. Sometimes, the app may work a one mobile and wouldn't work in another one. App developers should make sure these kinds of things doesn't happen, sometimes these issues will develop because of the structure of the mobile or due to a software. Time spent detecting the source of a problem means a delay in tackling the problem itself.

Advantages:

- **Downloading vs. streaming**: Users can view videos without having to download them.
- **High playback resolutions:** Some services support up to 4K, which is a higher quality than the standard for over-the-air TV resolution.
- **Price:** Some video streaming services such as YouTube and Twitch can be used for free, while other streaming services rely on subscription models that may cost less than the average cable subscription.
- **Platform choice:** Users can choose from a number of platforms to stream videos. TV and movie streaming services typically try to compete with one another by making exclusive content. Users can view livestreamed content as it happens, while they can view on-demand content, which is prerecorded media, whenever they want.

- **Content variation:** Since the concept of video streaming is so broad, individuals can stream TV shows, movies, user-generated content from websites like YouTube, or livestream content online.

Disadvantages:

- **Scalability:** It is important for any app to determine the number of users, irrespective of their numbers increasing. The back-end architecture should be scalable so that the numbers are calculated without any hassle.
- **Security:** Video streaming apps might face plagiarism in content and people might steam content from their platform. Therefore, it is necessary for them to buy proper rights, access control, and encryption details of each video they put up on their app or website.
- **Flexibility:** There are phones of different formats including iOS, Windows, and Android, along with several digital devices like tablets, laptops from which the users want to access a video. Therefore, the video providers should try to make a platform or an app which supports all devices and formats.Storage of data on a large scale.It is comparatively expensive and slow. Even the bandwidth offered is quite intensive.
- **Live & On-Demand Video Streaming Apps:** This is also a challenge as the infrastructure is expensive and the scope of reusability if is low.
- **Content Transcoding:** It is another challenge as saving the larger data sets can be expensive as the procession of numerous jobs is done in different formats.
- **Content Distribution Analytics:** A video streaming platform has to keep a track of its users through its analytics. However, these analytic reports lack details and are usually on the expensive side.

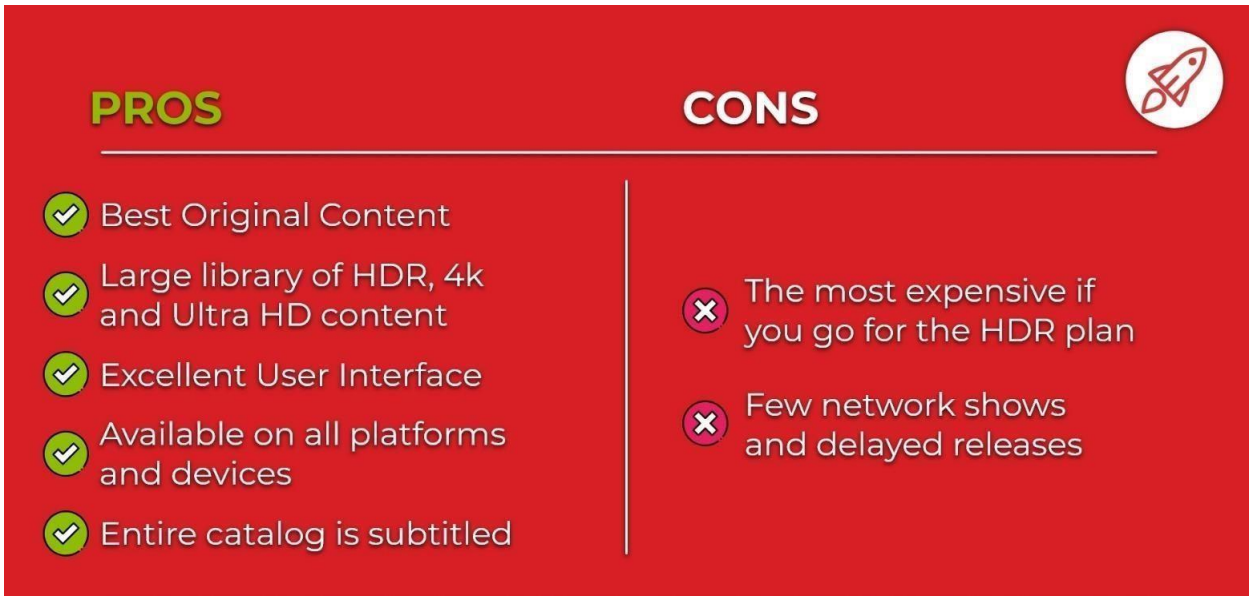

FIG 4.1 PROS AND CONS

UX Should Be Seamless Across Devices :

Regardless of whether a user is accessing your services on a mobile app, desktop, or mobile website, the transition between them should be seamless and consistent. All the design elements should mirror each other and that's one of the important UX Design Principles (for example, you shouldn't use red for the desktop and green for the mobile).With the proliferation of new devices in the market and the rise of mobility, users expect brands to deliver an accessible, efficient, and movable experience as they change devices.As a result, it is no longer enough for brands to provide solutions for various channels; they must blur the lines between multiple devices' experiences.

For example, if a user is traveling and wants to continue watching the show on his mobile that he was watching on his desktop last night, he should be able to move seamlessly without difficulty.

A consistent experience doesn't just make things simpler for users, it also creates brand awareness.

TYPOGRAPHY AND COLORS:

FIG 4.2 TYPOGRAPHY AND COLORS OF UI&UX

PHASES IN UI/UX PROCESS:

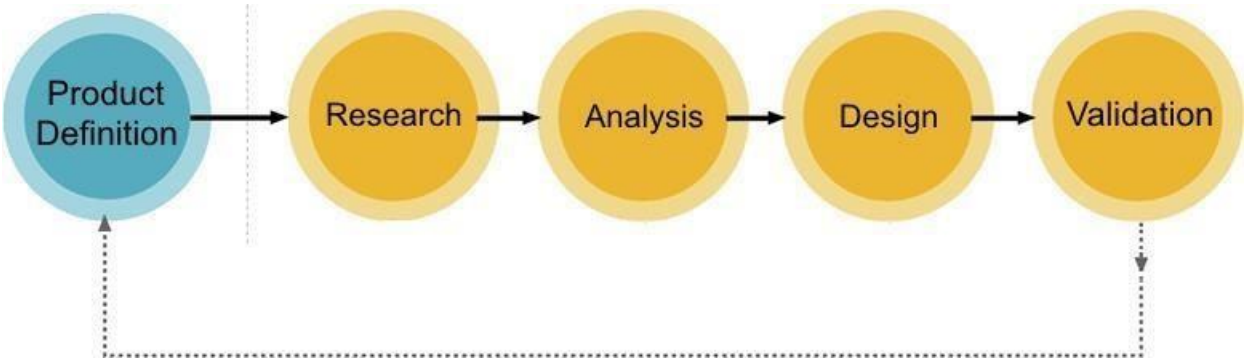

FIG 4.3 PHASES IN UI/UX PROCESS

1. Product Definition

Product Definition is the first phase involved in the user design process. The team responsible for this will collect the user requirements based on their business environment. It's very much essential because understanding about the real scope of the product and their existence happens in this phase.

It's simple; before beginning the work, enlighten your UI/UX designers about the requirements! People involved in this phase are Design Team, Business Manager, and Product Manager. The entire team should consult with clients in their environment. Analyze their needs within the framework of your operation.

The significant outcomes of this phase are User Personas, User Stories, and Use Case Diagrams.

2. Research

The research is the most crucial element for a designer. The designing team studies how the present system works for the current client proposal. The three main functions at this stage are:

- Have an understanding of the competition.
- Making a thorough study of your existing domain.
- Going through competitor strategy to test outcomes.

The Research process should also involve an understanding of the latest UI/UX trends, design principles, and guidelines.

3. Analysis

In this phase, make use of the things collected in the Research phase. With the help of the information received, create hypothetical personas, and experience maps.

- Hypothetical Personas: Creating hypothetical scenarios help the designers to know about the various persons who will be the users of your product. It allows

depicting the realistic representation of the ultimate product. The design team can figure out how it is going to look like after delivery.

- Experience Maps: Experience maps shows the user flow within your final product. All these are done using visual representations through proper interactions with the client in the product definition phase.

4. Design

In the design process, we finally end up giving life to ideas that we have collected in the above three steps. It's time to work on the final graphics now. The design team will execute the final design in this phase.

The significant outcomes of the designing phase are:

Sketching: The designing phase begins with sketching. The designers usually make hand made sketches to visualize the concept with simple terms. The UX/UI designers can stick to a particular option after the sketching process.

Creating wireframes: A wireframe is a visual structure that depicts the page hierarchy and the elements in the product. A wireframe is considered as the backbone of the product. It's also called the skeleton of the design. It's mostly about the overall look of the final product.

Creating Prototypes: Prototypes concentrate on the feel of the UI/UX product that one is designing. It's more about the interaction experience. Prototypes give you the effect of a simulator.

Creating Design Specifications: Design specification includes user flow and task flow diagrams. It depicts the overall working and the style requirements of the UI/UX product. It describes the processes and graphical elements to create amazing user experiences.

5. Validation or Testing

Testing is the phase that determines the overall quality of the end- product. The testers make notes of the things that have to be improved and send them back to the respected team for correcting the errors.

While evaluating your final product, there are certain factors that one needs to keep in mind. They are as follows:

- Is the system user-friendly?
- Is it flexible and easy to operate?
- Does it solve the customer's issue?
- Is it credible and attracts the users to come back every time they need your service?

CHAPTER 5 RESULTS AND DISCUSSION

Project Implementation:

- At first, we have to create a frame in Figma to get started with the project.
- We can add the required texts to the frame by creating a text layer.
- We can also add designs and colors to the frame to make it aesthetic.
- Here we have created a design for video streaming app so we should think how creative we can use the designs, so that the design will make the app standout to others in the video streaming segment.
- To make sure that the spacings are correct, we can add a column grid.
- After completing the app screen, we can align and refine the layout.
- To generate the code for the screen, figma has a pre-installed plugin in the library called Inspect.
- This converts the UI screen to HTML code which can be further used in browser for our use. This makes figma an interactive and an easy software to use.

Application Snapshots:

Overview:

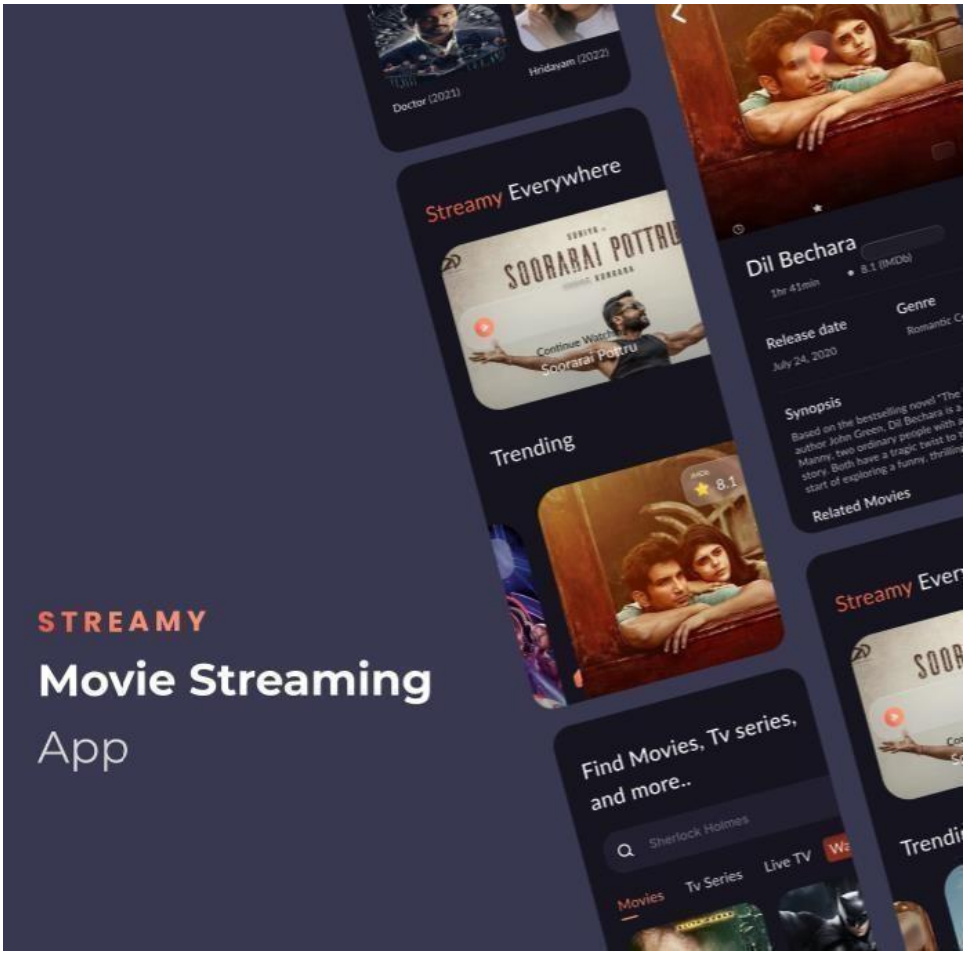

FIG 5.1 MOVIE STREAMING APP

Splash Screen:

FIG 5.2 SPLASH SCREEN OF APP

Login Screen:

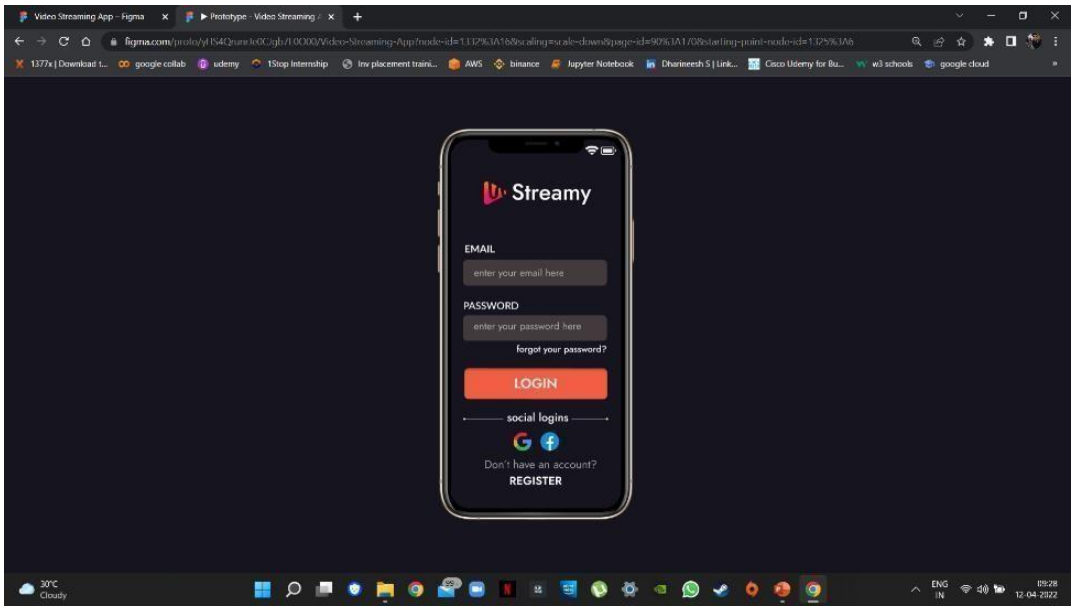

FIG 5.3 LOGIN SCREEN

Registration Screen:

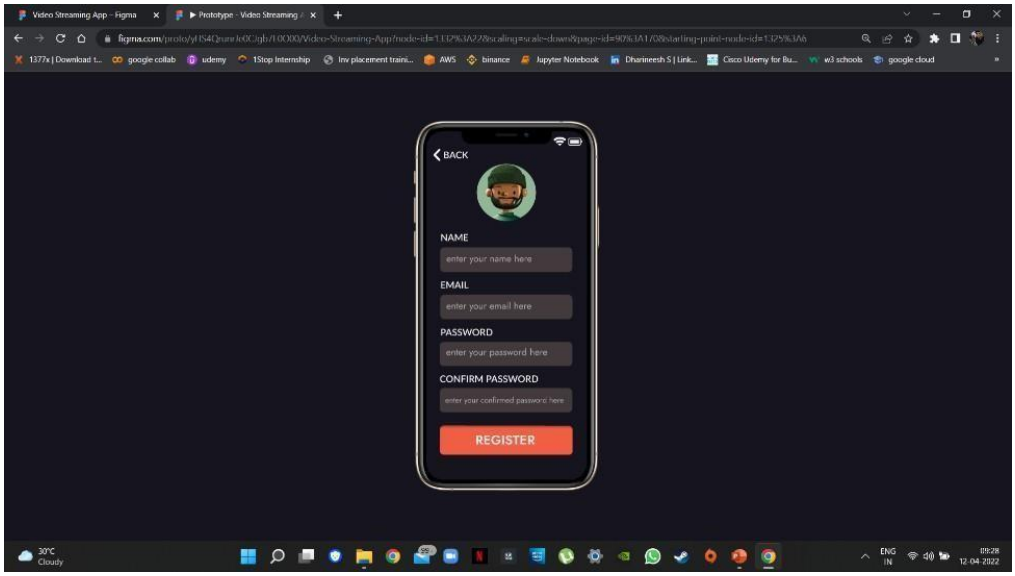

FIG 5.4 REGISTRATION SCREEN

Welcome screen :

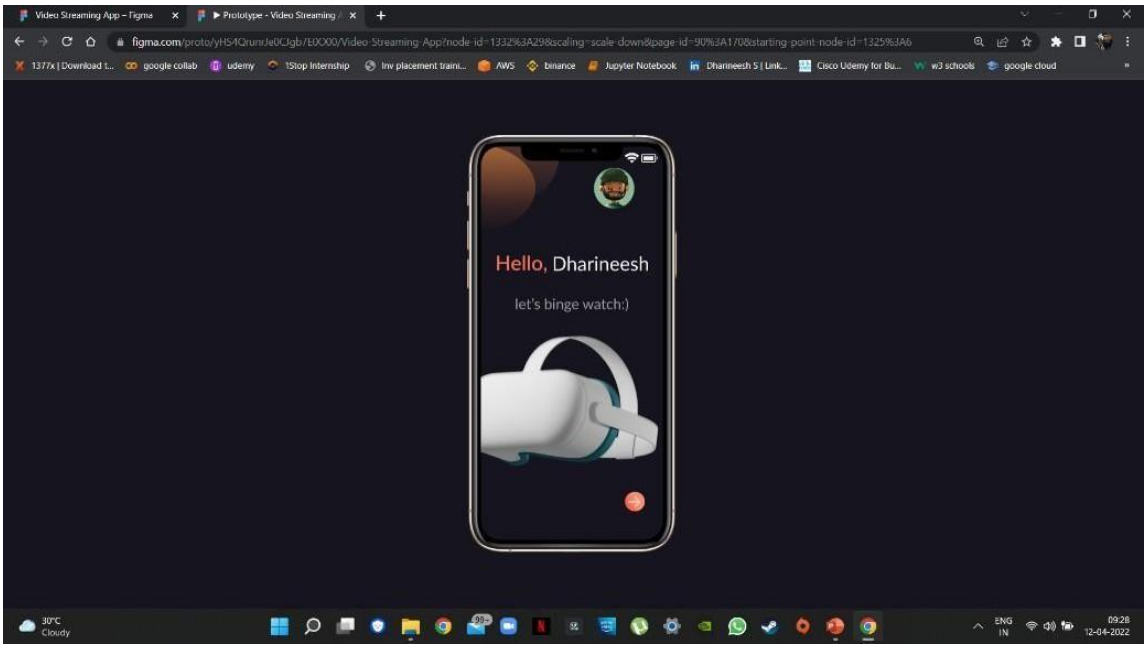

FIG 5.5 WELCOME SCREEN

Home Screen:

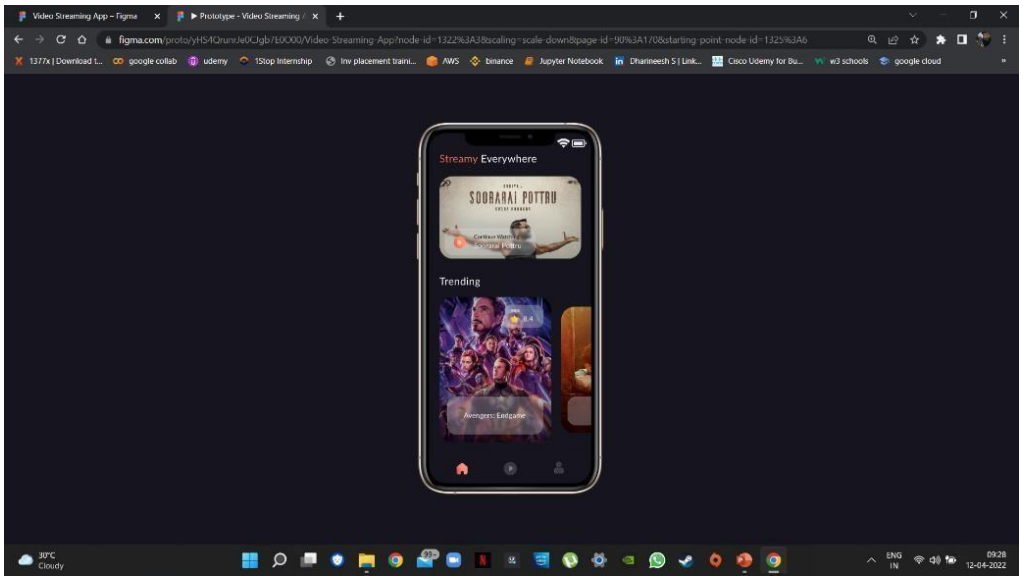

FIG 5.6 HOME SCREEN

Account Screen:

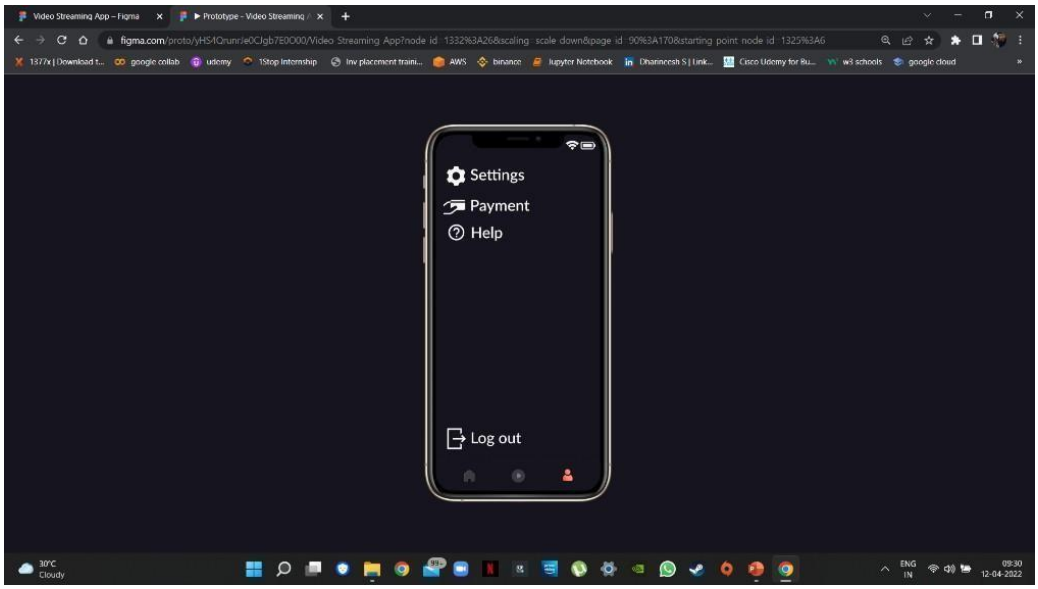

FIG 5.7 ACCOUNT SCREEN

Settings Screen:

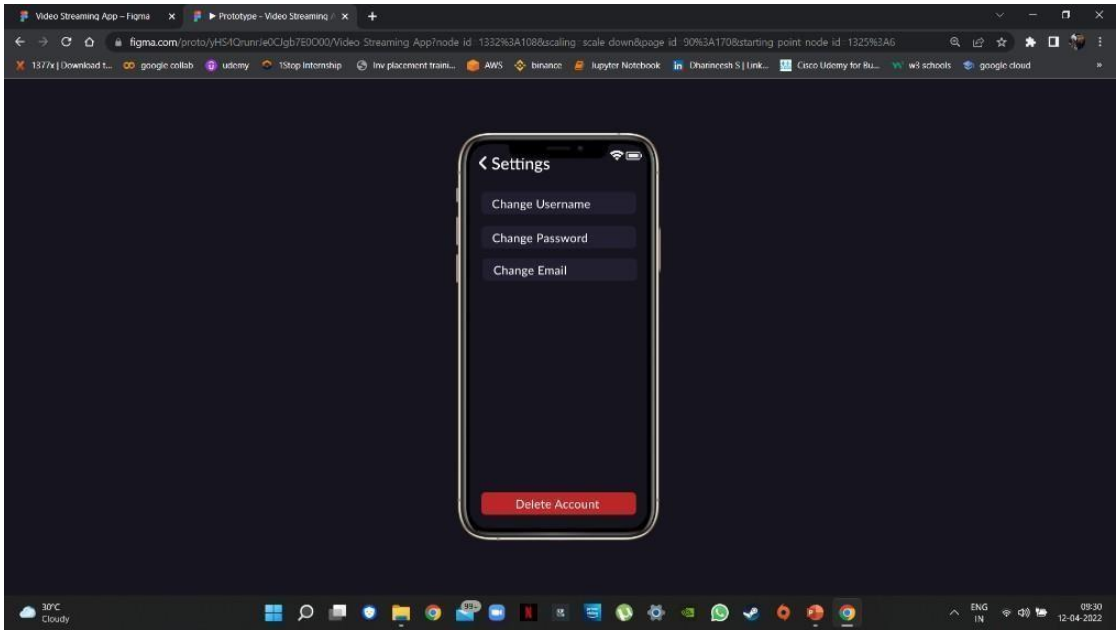

FIG 5.8 SETTINGS SCREEN

Payment Screen:

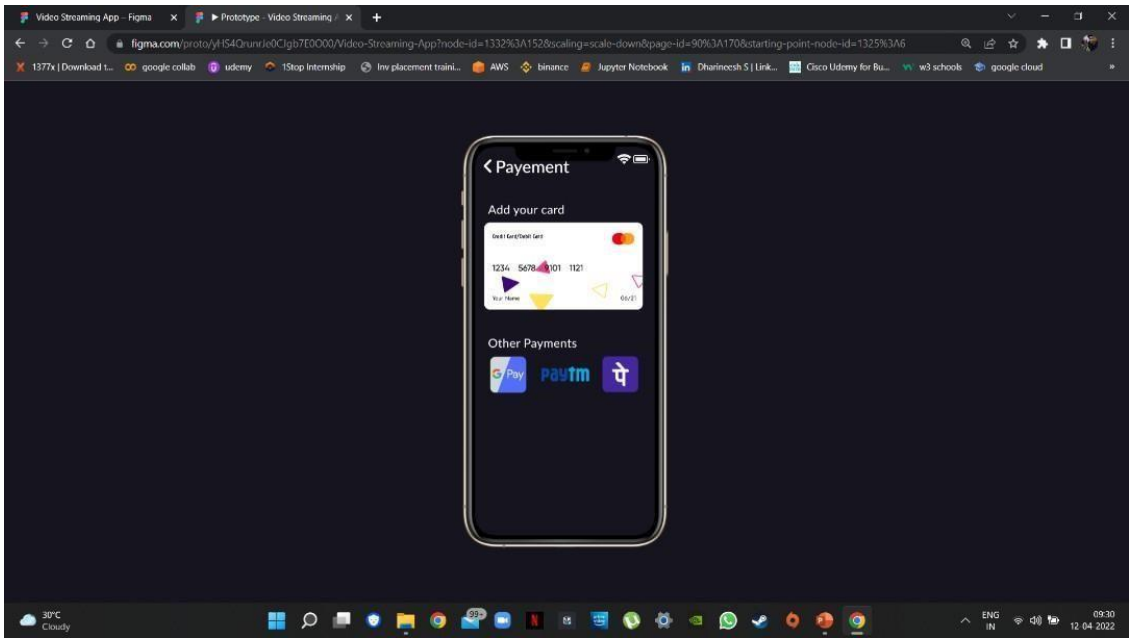

FIG 5.9 PAYMENT SCREEN

Help Screen:

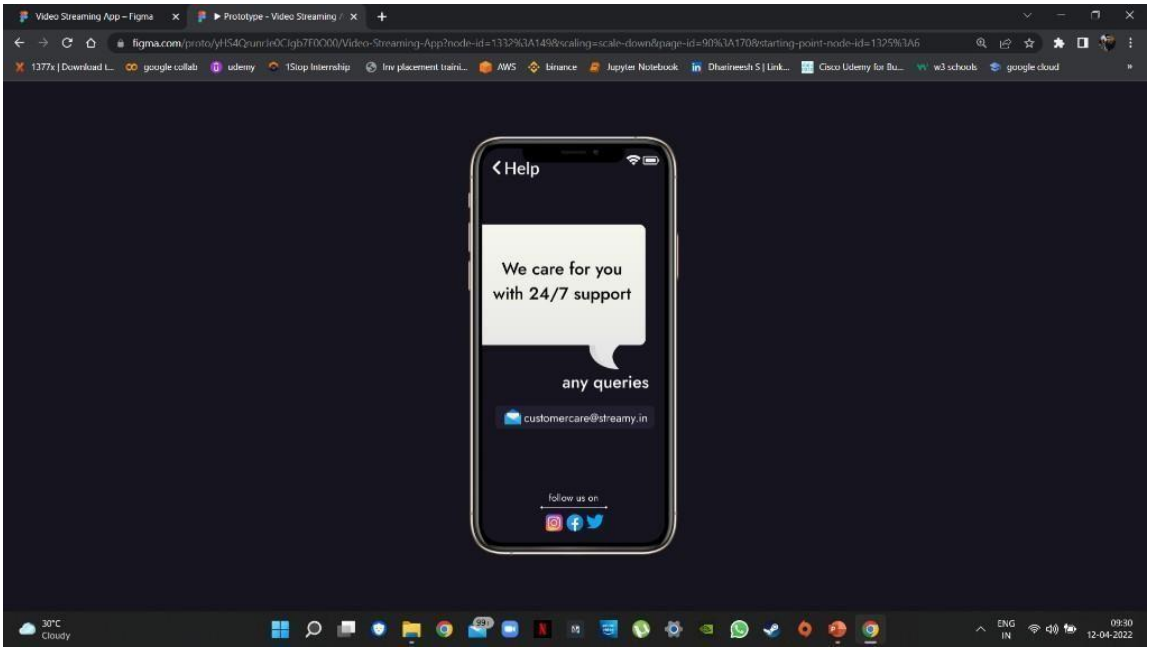

FIG 5.10 HELP SCREEN

CHAPTER 6 CONCLUSION AND FUTURE SCOPE

Conclusion:

As a Conclusion, I can say the internship was a great experience. Thanks to this project, I acquired deeper knowledge concerning my technical skills, but I also personally benefited. Currently, UI/UX is used as a major application while developing mobile apps and it has become a popular language worldwide. If we surf the internet, we can find number of apps developed using UI/UX. I learn to live in a different environment from the one I am used to. Indeed, I grew more independent in work and in everyday life. I realized that I could do more things than I thought like learning new things by myself.

There are huge opportunities available for the students who want to work in this field. Many private and public organizations hire UI/UX developers for designing mobile apps. With the rapid advent of online industry, the demand of UI/UX developers is increasing, and this has created a huge job opportunity for the aspirants in the upcoming days. Also, an experienced person in this field can also work as a freelancer; there are many online companies which provide online projects to the individuals.

Future Scopes:

- Can work as a UI/UX developer
- Can work as a Software Engineer
- Can work as a freelance mobile app’s developer