

# **FLIX FUSION: MOVIES AND TV SHOWS DICOVERY HUB**

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# **FLIX FUSION: MOVIES AND TV SHOWS DISCOVERY HUB**

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**THIS FINAL YEAR PROJECT REPORT IS PREPARED TO FULFILL  
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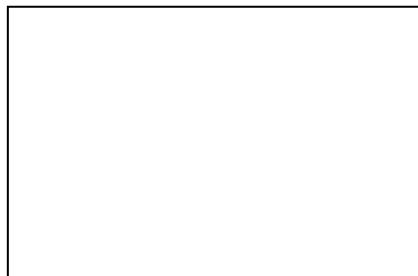
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## **Abstract**

This project aims to develop a mobile app called "Flix Fusion: Movie and TV Show Discovery Hub" to tackle the daunting challenge of navigating today's vast entertainment landscape, which has been expanding rapidly with the surge in streaming services and the constant influx of new content.

Flix Fusion aims to simplify the way people discover movies and TV shows, offering them a one-stop platform to explore the world of cinema. The target user for the mobile app is for both casual viewers and cinephiles. By using this app, users can effortlessly add their favourite content to their lists and watch it later. The app boasts an intuitive and seamless interface, and it leverages advanced recommendation algorithms to enhance the user experience by helping them find captivating narratives. Flix Fusion promises to be your go-to companion for discovering the best in entertainment. The project will be presented at the end of semester.

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**Thank to ALLAH, SV, COORD, PARENTS, FRIENDS.**

# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Introduction**

As the world of entertainment continues to expand significantly through the emergence of streaming services such as Amazon Prime, Netflix, Hulu and more, providing a vast number of Movies and TV Shows within reach, the task of navigating this huge ocean of content has become increasingly overwhelming for many users. Every day we could see the huge amount of release of new Movies and TV Shows, further increasing to the continuous growth of this expansive pool of content. In response to this challenge, we have proposed the creation of a mobile app named "Flix Fusion: Movie and TV Show Discovery Hub." This app aims to revolutionize and simplifies the way Movie and TV Shows enthusiasts and casual viewer to discover and engage with their favourite cinematic favourites.

Flix fusion is an app focused on making the finding of Movies and TV Shows easier as this app offer a seamless platform that compile the entire spectrum of cinematic titles. Users can effortlessly discover their favourite Movies and TV Shows, and they also have the capability to add Movies or TV Shows to their Favourites lists and Watchlist. The app's intuitive and minimalist interface focused on user friendliness and accessibility, and top movies and TV shows recommendation will serve as a guiding compass, offering users an effortless and engaging means to explore captivating narratives. Flix Fusion will serve as an indispensable companion for both casual viewers and dedicated cinephiles.

## **1.2 Problem Statements**

There are few problems that we have discovered during our research to create the best mobile app for discovering and accessing the data of a movie or TV show details. This includes:

### **1.2.1 Overwhelming amount of content and unorganised interface of websites**

In today's digital age, picking the perfect movie or TV show can be a real challenge because there are just so many options available. It doesn't help that some websites have messy layouts and aren't user-friendly. Users often find themselves struggling to discover content that suits their preferences.

These websites lack the ability to recommend what users might enjoy while they're casually browsing. The interface of certain sites can be a real hurdle for users, especially when it's not mobile-friendly. Fonts are all over the place, information appears in odd spots, and the sizing is off, making it nearly impossible to browse for movies and shows on a phone, even though we use our phones more often than computers nowadays. (Soegaard, 2023)

### **1.2.2 Lacks the ability to access accurate and up-to-date data**

During our research to find the best website that user could use to find for movies or tv shows detailed information such as summary, cast, crew and more, we have stumbled on multiple obstacle such that some of the websites are either old and outdated or it took quite a few weeks before their data being updated and available to being viewed by the end user. This can be seen as an issue to some if they wanted to know the information about that movie or tv shows for either casual browsing or in much more serious researching.

### **1.2.3 Limited functionalities for user experience**

With a vast number of movies and TV shows at their fingertips, users often struggle to organize their preferences effectively. To address this challenge, users frequently express a desire to curate their own personalized watchlists or favourites. However, some existing platforms lack the functionality to create such custom lists or sometime requiring them to registers for an account, which can be frustrating for users and hinder their ability to revisit beloved content.

## **1.3 Project Objectives**

Here are some of the project objectives that we have decided to overcome the problem statement discovered during our research:

### **1.3.1 To develop a Mobile App with a user-friendly and accessible interface**

In order to overcome the difficulty faced by some user while trying to casually browsing or doing in-depth research for a movie or tv shows either for some casual streaming or academic research purposes, we have focused mostly on making the interface for this mobile application to be the most user friendly and accessible to all mobile user. The apps will be optimised for both Android and iOS users. The interface will make use of mobile interface in both portrait and landscape orientation.

### **1.3.2 To provide the user with accurate, up-to-date and intuitive data.**

As we are all aware of the false information that can easily spread across the internet, ensuring authentic and genuine data for movies and TV shows has become our top priority during the development of Flix Fusion. Finding a service and provider that offers highly authentic data is quite challenging. The data will be provided to users directly from the app without requiring any payment.

### **1.3.3 To create a Mobile App with Features and Functionality**

Having a mobile app with useful features is one of the specialties of Flix Fusion. These functionalities are adding movies and TV shows to “Favourites”, adding movies and TV shows to “Watchlist”, browse movies through a list of available genres and if the user want to find a specific movie, they can just search it through the “Search” tabs with an included filters such as country, language and more. Flix Fusion would also showcases Top Rated Movies and TV Shows so users can discover new titles that they have never heard before.

## **1.4 Scope and Target User**

### **1.4.1 Project Scope**

As a system that does not own a database, the system operates solely through API call from a public database. The database that has been chosen for this project to be used is a database by a website called The Movie Database (TMDb). This public database would provide all sort of information for both movies and TV shows with its proven authentic and genuine data thanks to its being an open sources and community-contributed systems.

### **1.4.2 Product Scope**

The system is quite straightforward, it involves only two user types: the admin and the end user (the customer). The admin has the authority to add or remove features, address bugs, and perform other tasks. However, due to the app not having a database, the admin's control is somewhat limited, such as deleting a movies or TV shows from the app or changing the details of a movie or TV show is not possible.

On the other hand, the user can freely browse, search, and save their favourite movies and TV shows to their playlist, folder, or other personal space.

### **1.4.3 Target User**

The application is intended for anyone with a mobile phone, whether on Android or iOS, and access to the internet. This way, individuals can easily download it from the Google Play Store or the iOS App Store.

- **Admin**

Which would be myself, as the sole admin, will have complete control over this app. The admin role involves the capability to update the app by modifying its UI, updating its API key and callouts, or adding and removing features as needed.

- **General User both Male and Female (Aged 13 - 21)**

This app is designed with a focus on users between the age of 15 until 31. This is due that it is proven by most research, most of the audience and movie fans from the recent years are mostly teenagers and young adult compared to a much older audience. (Paramount, 2015)

Other than that, some of the content are also contains adult rating content and it is difficult to filter it.

## 1.5 Project Requirement

In order to complete this project, there are few requirements that we need to fulfil such as:

### Functional Requirement:

- **Search Functionality:** The app should allow users to search for movies and TV shows by title, genre, or actor's name using the TMDb API. The search results should display relevant information such as title, poster, synopsis, release date, rating, and available streaming platforms.
- **Favourites and Watchlist:** Users should have the ability to manage their Favourites and Watchlist within the app.
- **Streaming Platform Integration:** The app should provide direct links or information about where users can stream or watch the selected movies or TV shows across different platforms.

### Non-functional Requirement:

- **Performance:** The app should load search results and user profiles swiftly, with minimal latency, utilizing the capabilities of the Ionic Framework. The maximum acceptable loading time for search results should be 3 seconds for optimal user experience.
- **Usability and Design:** The app should have an intuitive and user-friendly interface designed with the Ionic Framework's best practices. It should maintain consistency in design elements, navigation, and layout across different devices and screen sizes.

### **1.5.1 Software Requirements**

#### **I. Ionic Framework**

The main structure for this mobile app. Ionic is a framework making it easy to develop mobile app with its already exiting packages and pre-built structure. Both the frontend and backend are prebuilt in one software such as Angular.

#### **II. Node.js**

Node.js is a JavaScript runtime environment. This enables the ability to run a JavaScript code such as what contain in Ionic app project outside a web browser.

#### **III. Visual Studio Code**

A code editor with tons of features and add-ons developed by Microsoft. This code editor offer a minimalist interface and function yet able to handles huge project

### **1.5.2 Hardware requirements**

Laptop HP Pavilion 14-CE3065TX

- Operating System: Windows 11 Pro
- Processor: Intel® Core™ i5-1035G1 CPU @ 1.00GHz
- System Architecture: 64-bit Operating System, x64-based processor
- Storage: 500 GB
- Memory (RAM): 16 GB

## **1.6 Conclusion**

To sum things up, having an app installed on your own personal pocket computer (your smartphone) can make one's life much easier. This can be seen by the creation of "Flix Fusion", a mobile app that could help both casual viewers and dedicated movie enthusiasts to browser and discover new movie title or knowing the latest episodes of a series. Besides discovering new title, they could also add them to their favourites and watchlist for later viewing.

Exploring detailed info about specific movies or TV shows is also simpler with "Flix Fusion," where all the info is neatly organized in the app. This is much easier than trying to find the same info by opening a web browser and searching again, not knowing whether if the info is authentic or not.

# **CHAPTER 2**

## **LITERATURE REVIEW**

### **2.1 Introduction**

In the second chapter of this report, we will be focusing on writing the literature review and the research that we have done. It's essential for us to carry out a throughout literature study by examining other individual projects, websites and systems before diving into the framework coding of our project. This can be incredibly useful when working on the research questions and improving our techniques to overcome the problem and issue faced by our project. To conduct this research, we explored various resources on the internet using a search engine such as Google, while giving a special focus on the world's largest code repository platform, GitHub.com to find inspiration and guidance for our own project.

### **2.2 Topic Research**

While conducting our research, we discovered that the mobile application we've been developing primarily functions as a browsing system, excelling particularly in browsing for movies and TV shows. It's designed to be user-friendly and accessible to most users while providing thousands of content options. The app's performance is greatly enhanced as it relies on the Open Database method, by using API calls from a website called The Movie Database (TMDb). This approach encourages open-source contributions from movie and TV series enthusiasts.

Moreover, the reason for us choosing the method of an API call, or Application Programming Interface, to display information in Flix Fusion is because this method is much simpler compared to having our own database. Managing our own database could lead to more complicated issues. An API simply acts as a mediator between the database and the mobile app, serving data according to our needs (Red Hat, 2022).

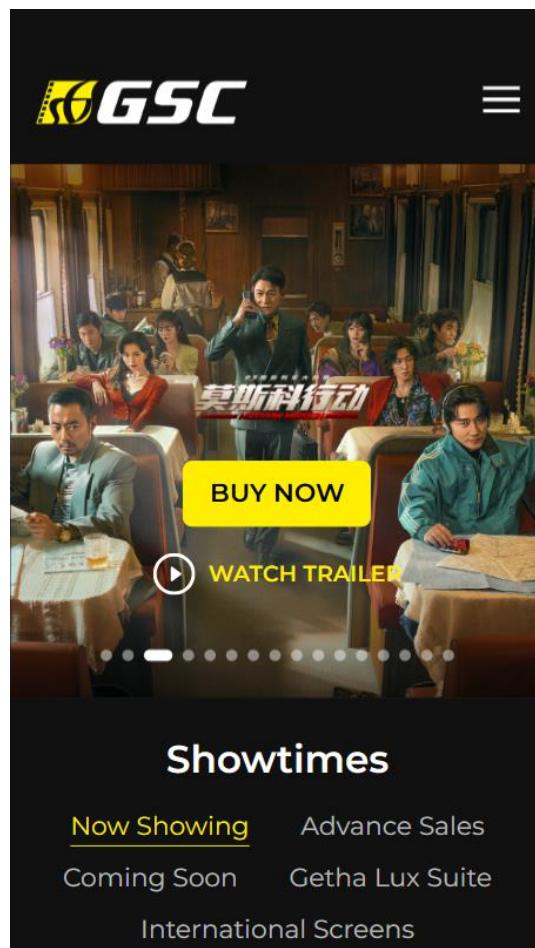
Furthermore, we selected The Movie Database as our main source of information due to its proven authenticity and genuine data. Additionally, it's relatively new and still under development by the community and the website's team. Moreover, it is free, open-source, and benefits from community contributions, making it superior to other databases (Carpentier, 2019).

## **2.3 Previous Case Study**

Case studies have played a crucial role in shaping the development of our proposed system. As a collaborative effort within our team, we gathered a diverse array of case studies from sources like GitHub, Google, Google Scholars and YouTube. These real-world scenarios have offered us valuable insights into best practices and challenges encountered by others, helping to refine our approach and design. As we will be developing a mobile application, most of the screenshot displayed will be in a mobile environment (portrait landscape) to focus on how user would see and interact to the website. The case studies include, Golden Screen Cinemas, Internet Movie Database (IMDb), and LetterBoxd

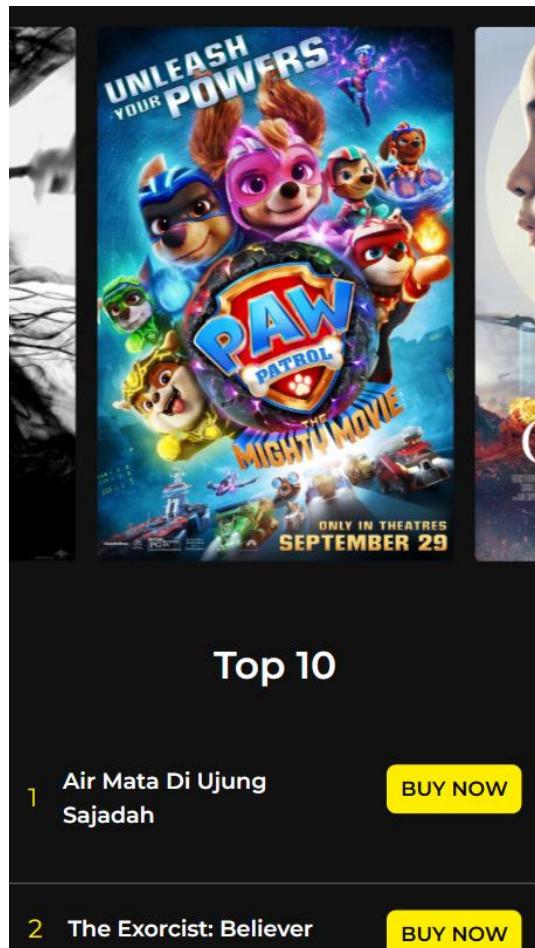
### 2.3.1 Golden Screen Cinemas GSC (Mobile app)

As our research spanned both the website and mobile application, our team unearthed a widely popular platform for browsing and purchasing tickets in Malaysia Golden Screen Cinema (GSC). Our investigation revealed that this application was crafted and designed using the Ionic Framework. This insight not only broadened our understanding but also provided a valuable reference point for creating an intuitive interface design for our project.



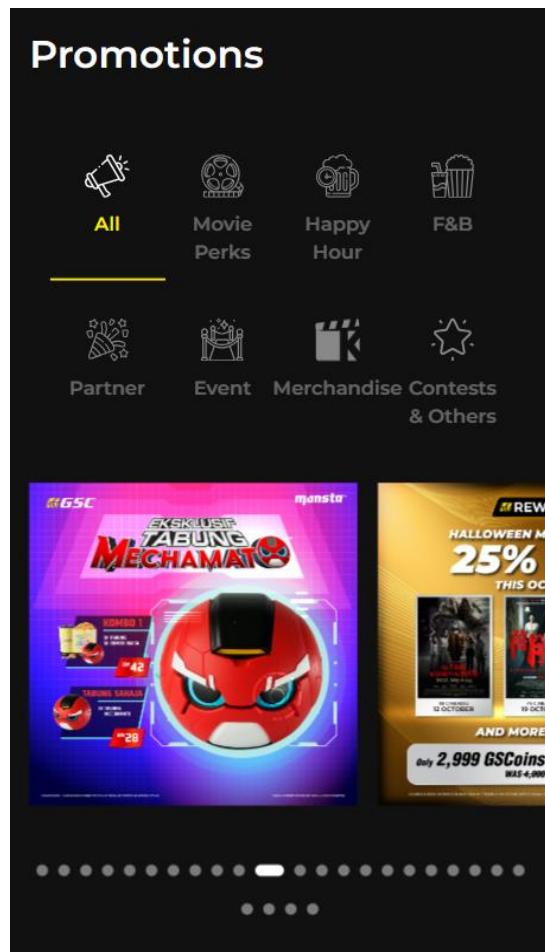
**Figure 2.3.1.1** Home page of GSC Cinema (Golden Screen Cinemas, 2023)

Figure above displays a screenshot of the GSC Cinema homepage. At first glance, the homepage appears to be straightforward, featuring the latest movies currently playing in cinemas across Malaysia and providing showtimes for future movie and currently released movie by that cinema. Additionally, users have the option to watch a brief movie trailer or teaser directly from the homepage.



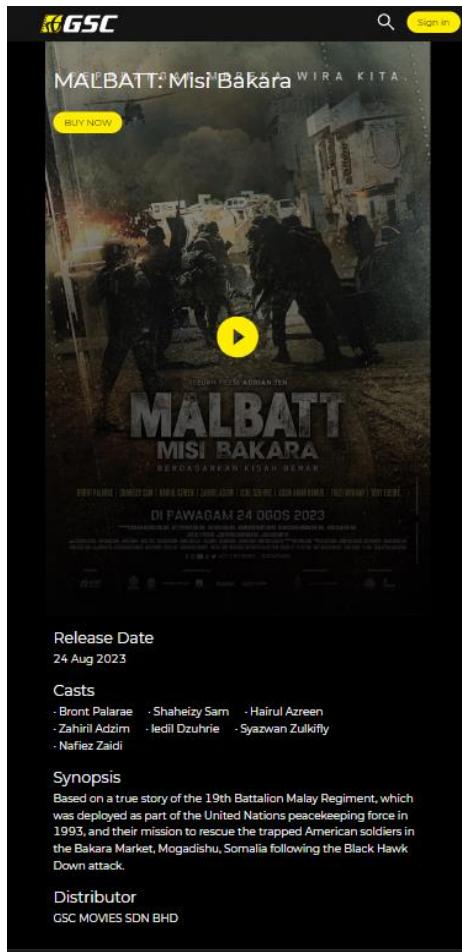
**Figure 2.3.1.2** Top 10 Most Purchase Movie page (Golden Screen Cinemas, 2023)

While we're still at the homepage of GSC Cinema website, scrolling down a little bit will reveal the user a carousell of latest movie and a list of most bought ticket from the last 24 hours. This might help user to decide whether it is worth the watch of certain movies that has been premier on their local GSC Cinemas.



**Figure 2.3.1.3** List of cinemas promotion category (Golden Screen Cinemas, 2023)

Next on the same page, we could see a showcase of various category and a carousel of merchandise that have been sold by the cinema. This category listing shows bunch of promotion that has been done and also event been conducted by the GSC.



**Figure 2.3.1.4** Detail of a movie page (Golden Screen Cinemas, 2023)

The image above provides a comprehensive movie overview when clicked on one of the movie. Although its not much of a detail, It offers just the right amount of information for customers to get acquainted with the movie, including the release date, cast, a brief synopsis, and the movie's distributor.

### 2.3.2 Internet Movie Database (IMDb)

Our next research destination is Internet Movie Database (IMDb), one of the most widely used platforms by both casual moviegoers and professional movie critics individuals. IMDB has been involved in the film industry for almost 33 years, which makes it the oldest website on the internet that have a wide collection of movies and TV shows, IMDb has been first introduced to the public in 1990. It serves as a hub for movie and TV show reviews and offers a wealth of information related to specific films and television series.

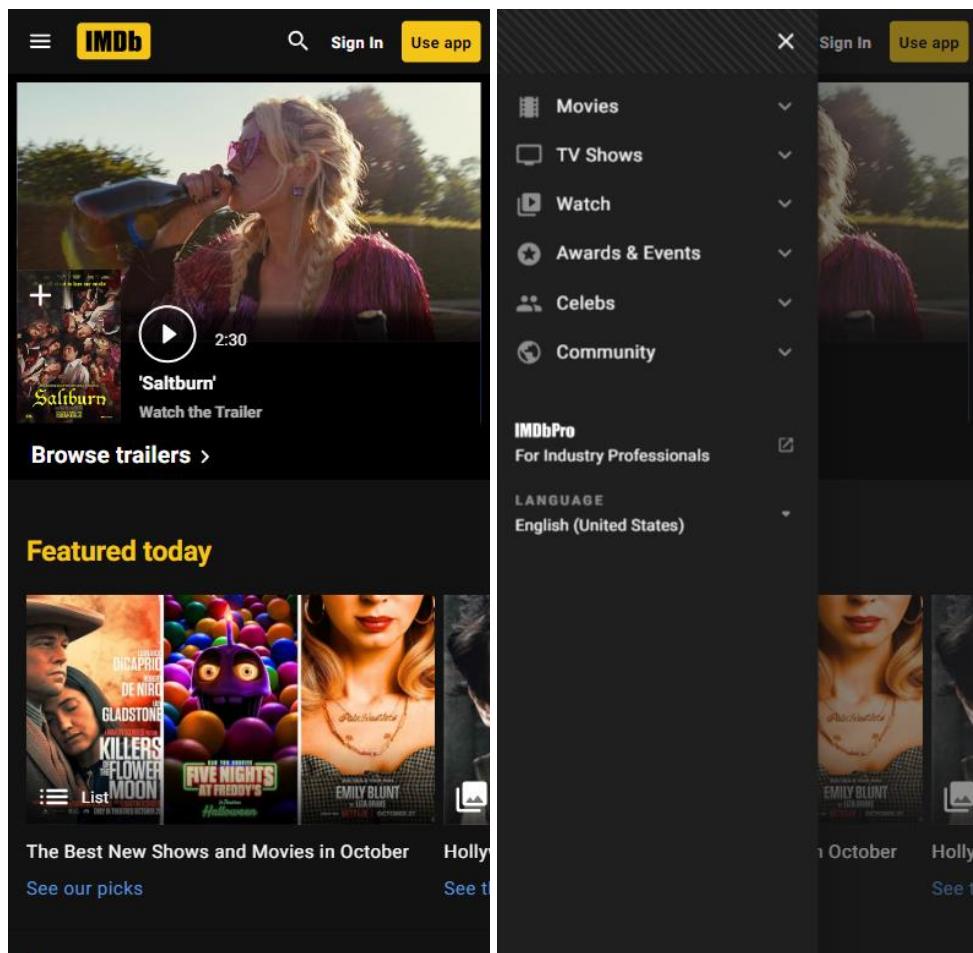
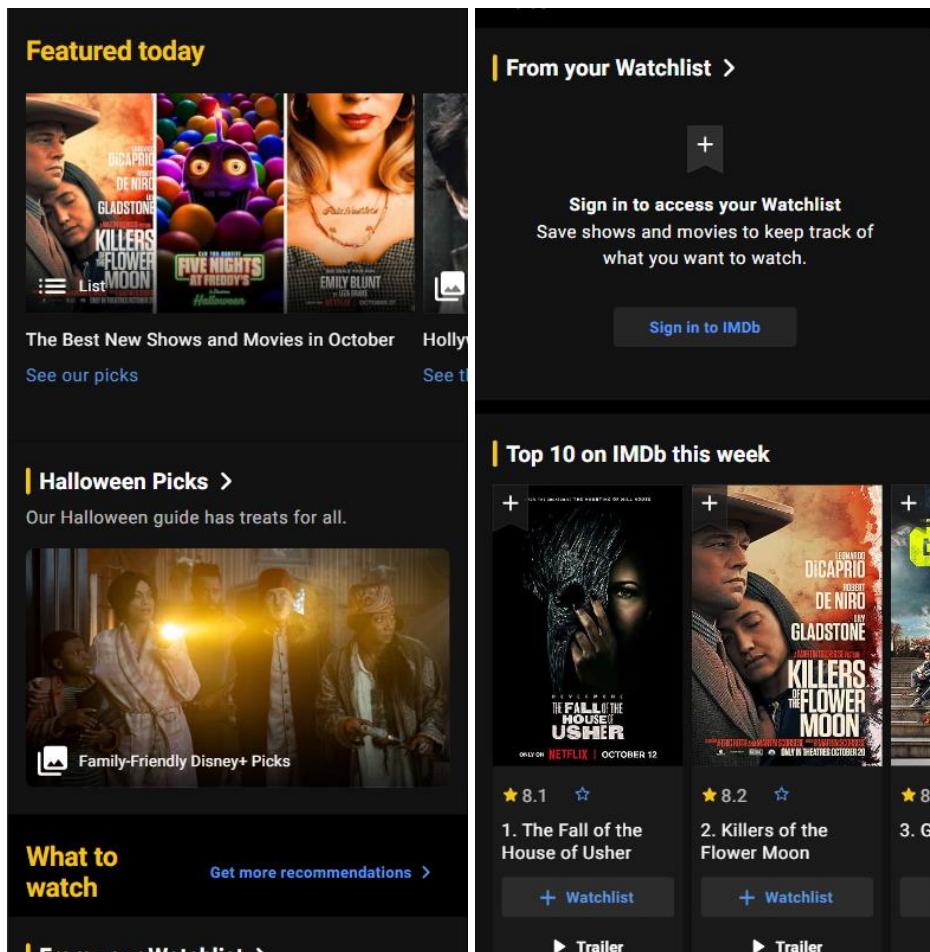


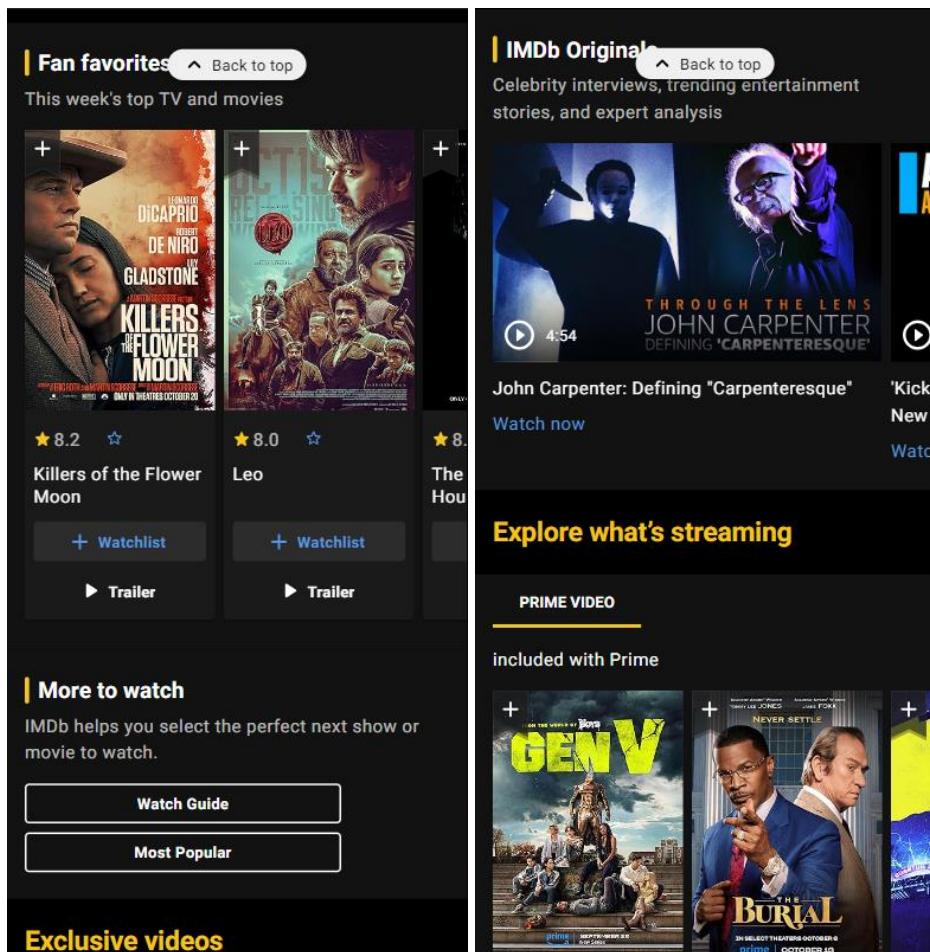
Figure 2.3.2.1 home page of IMDB (IMDb, 1990)

In the image above, we're presented with the primary homepage of the IMDB website, which offers a bunch of intriguing details we'll explore shortly. At the top, you'll immediately notice the 'hamburger icon,' where all the essential options and pages are neatly tucked away. While this design may seem convenient, it can pose a challenge for some users as it remains somewhat hidden from plain view. Right next to it is a button that allows users to either sign in if they have an IMDB account or sign up for one. Beside the sign-in button, there's an option to download the IMDB app for easy access, eliminating the need to use a web browser. At the very top, you'll find the latest movie releases. It also provides a brief trailer and teaser for users to preview the film.



**Figure 2.3.2.2 Recommended section and watchlist (IMDb, 1990)**

The image above depicts the homepage's continuation, featuring several sections. This website is notably dynamic; as users scroll down, the content unfolds before them, and many options within the 'burger icon' become visible. The image also showcases 'Featured Films' grouped by current events and a section where users can access their 'Watchlist.' It's worth noting that to view their 'Watchlist' of films and TV shows, users must be signed in, which might be a bit inconvenient for those who prefer a more streamlined experience without requiring an unnecessary account. Towards the bottom, you'll find the 'Top 10 Most Reviewed Movies on IMDB.' These reviews are a blend of input from both regular users and professional critics. Each review is represented by a simplified star icon and the corresponding rating score, making it easy to gauge the overall reception of the movies.



**Figure 2.3.2.3** Favourites section, IMDb originals and Trending titles (IMDb, 1990)

As we dive further into our exploration of the website, additional features become apparent, specifically tailored for the mobile environment. As mentioned earlier, the hamburger icon, along with the 'sign in' and 'get app' buttons, is no longer visible, indicating that the website header is not fixed. To address this issue, IMDB has introduced a 'Back to Top' button, allowing users to effortlessly return to the webpage's beginning.

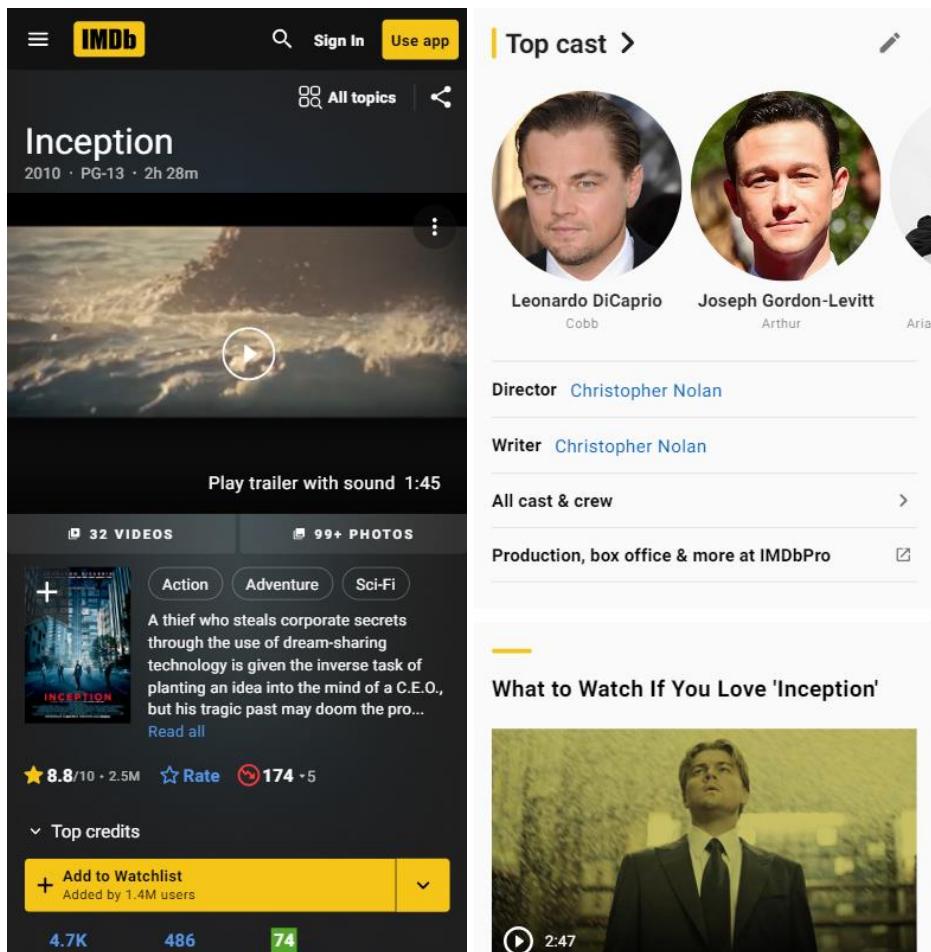
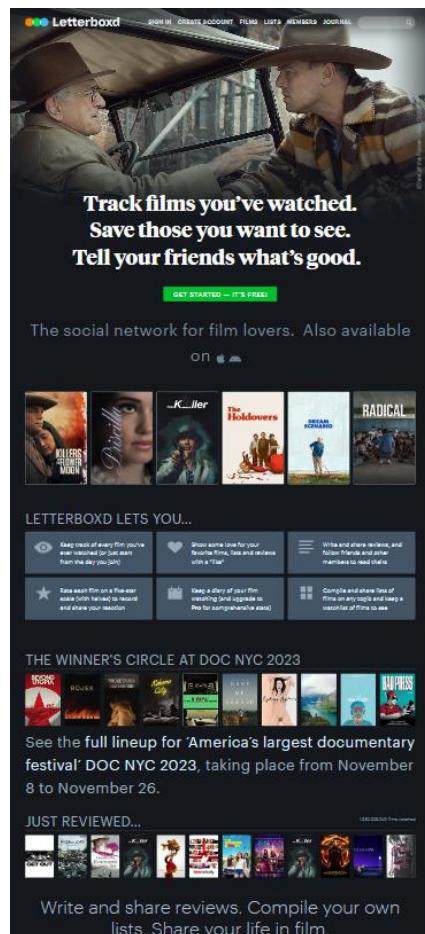


Figure 2.3.2.4 Movie details page from IMDB (IMDb, 1990)

Since the website offers a great number of features, content, and options, we will focus our research on its most significant aspects. Some of these features will serve as references for our mobile app and will inspire its functionalities. For instance, in the image above, you can see the movie details when you click on a movie from the homepage. This details page is packed with various information, including trailers, posters, user ratings, genres, a brief movie synopsis, and a button that allows users to add the movie to their watchlist.

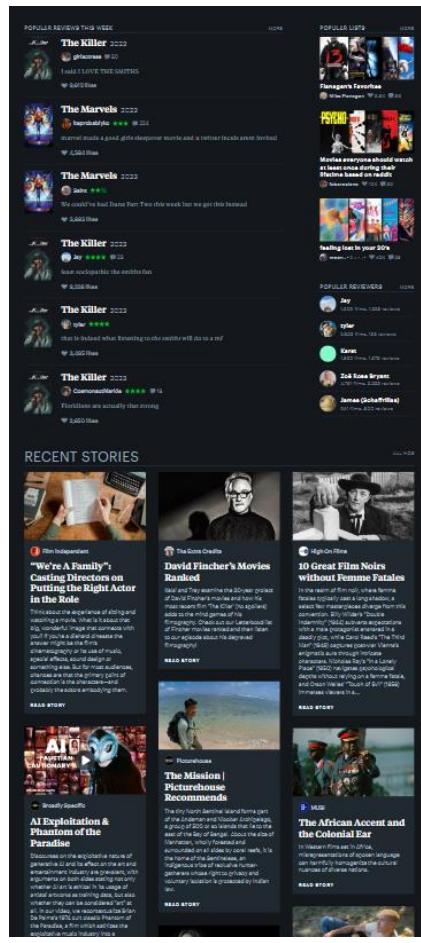
### 2.3.3 Letterboxd

The last case study we selected for our project is website called Letterboxd. Letterboxd is a popular movie and TV show website primarily used by young adults. The website functions like a social media platform with the tagline 'The Social Network for Film Lovers.' Users can track and share their progress watching movies and TV shows with their friends. Additionally, Letterboxd allows users to discover what movies and TV shows their friends are currently streaming.



**Figure 2.3.3.1** Home page of LetterBoxd ([letterboxd.com](https://letterboxd.com), 2022)

As we have mention before, the home page of LetterBoxd is a bit clustered with infomations and unnecessary section making viewing this website on mobile environment impossible without the user having to pinch to zoom in to see each of the text.



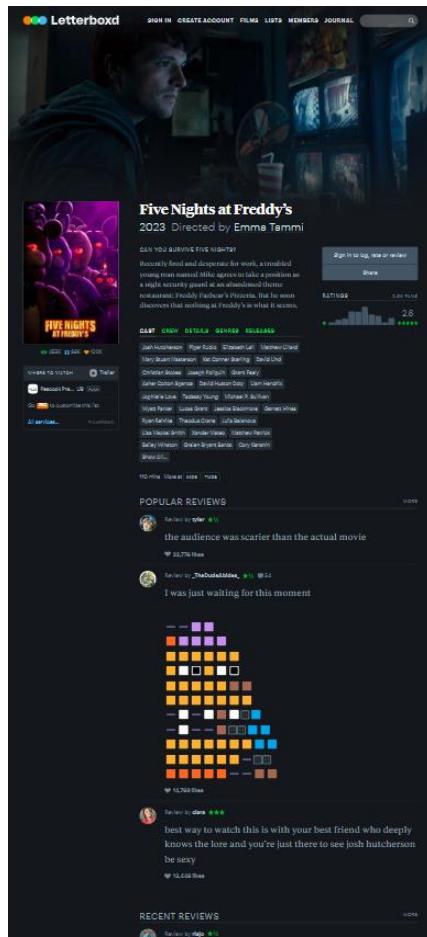
**Figure 2.3.3.2** Popular Movies and Article of LetterBoxd (letterboxd.com, 2022)

At the same home page, scrolling down to the bottom we can see popular movies, and article by LetterBoxd. These section is very useful for some, but due to its unoptimised interface, browsing these section is impossible.



**Figure 2.3.3.3** Top Trending and Popular Movies page (letterboxd.com, 2022)

On this page, we can see the trending and popular movies page rated by the community of LetterBoxd. As we can see these page are not optimised for mobile users and it even requires “Pro” subscription and “Patreon” to access more features.



**Figure 2.3.3.4** Details of a Movie in LetterBoxd ([letterboxd.com](https://letterboxd.com), 2022)

On this page, user can see the details of a movies such as Cast, Crew, Summary, Genres and more. Some of the details still requires payment or a “Pro” member so that they could access and see it.

## 2.4 Comparison

Here is the full comparison of all 3 case study that is Golden Screen Cinemas, Internet Movie Database, and LetterBoxd. We also take some of the features and inspiration from the website that we have studied and implement it into our very own apps.

**Table 2.4.1:** Comparison of Case Study

	GSC Cinema	IMDB	LetterBoxd
<b>Programming Language</b>	HTML, CSS, JavaScript	HTML, CSS, JavaScript	HTML, CSS, JavaScript
<b>Interface Design</b>	User Interface is not optimised for mobile and	Clustered with bunch of content and function.	Too crowded with information in a single page.
<b>Adding Movie and TV show to Favourites</b>	No function to add to “Favourites”	Requiring account registration	Requiring account registration
<b>Adding Movie and TV show to Favourites</b>	No function to add to “Watchlist”	Requiring account registration	Requiring account registration
<b>Movie and TV Show Database</b>	Movies only and old movies data will be removed	Movies and TV Shows	Movies and TV Shows
<b>Detailed Information of a Movie or TV Show</b>	Not enough detail, and movie only	Plenty of details for both for Movie and TV Show	Plenty of details but some required to be Logged in
<b>Database Type</b>	Closed Source	Partial Open Source and community-contribution system	Partial Open Source and community-contribution system although required reputation to contribute
<b>Required Payment</b>	Does not required payment	Free	Does required payment to access some infos

## 2.5 Discussion

After completing all the research, we were able to identify the strengths and weaknesses of the three case study subjects: Golden Screen Cinemas (GSC), Internet Movie Database (IMDb), and Letterboxd. We can take inspiration from some of the features of these websites and implement them into our project. However, we may need to discard certain features that prove to be ineffective or unnecessary.

The first case study from which we could draw inspiration for certain features is the Golden Screen Cinemas (GSC) mobile app. The app keeps you in the loop with the latest top and trending movies, but some of the old titles will be removed from the app entirely. While the app does a great job for letting the user to purchasing movie tickets, it is not ideally suitable as a comprehensive movie and TV show encyclopaedia. The mobile application suffers from shortcomings in user interface optimization, functionalities, and data availability, as it primarily displays information for movies and lacks content related to TV shows.

Our next focus will shift to the most popular movies and TV shows database: the Internet Movie Database, commonly known as IMDb. IMDb stands as the internet's largest and oldest repository of movies and TV shows. Providing a host of features including displaying Top Rated and Popular Movies and TV Shows, enabling users to add movies and TV shows to their Favourites or Watchlist for later viewing, and offering in-depth details about each title. However, it presents a difficulty for some users, requiring an account for accessing most functions. Despite this limitation, IMDb remains slowest in updating information about titles, due to its large database, strict moderation, and active community consistently contributing new data.

Our focus now shifts to Letterboxd, a vast database housing movies and TV shows, competing head-to-head with IMDb in its huge catalogue. Tailored specially for young adults immersed in the world of films and series, Letterboxd precisely targets this passionate demographic. Much like IMDb, Letterboxd embraces features such as discovery of new titles, showcasing top-rated movies and TV shows, and empowering users to craft their personalized lists, shareable among friends and family. However, the platform faced with significant issues on its website. In today's digital era, most internet users use mobile phone then a laptop or PC browsing. Unfortunately, Letterboxd falls short in optimizing its interface for mobile users. Some elements are off putting while some are not viewable at all forcing the users to pinch their screen to zoom into its text. Some features also required a "Pro" subscription or a patreon membership to use it.

## 2.6 Conclusion

In conclusion, after diving deep into Golden Screen Cinemas (GSC), Internet Movie Database (IMDb), and Letterboxd, we've found some really helpful insights into what each of them does best and where they fall short. Each platform has its own great features that could give us ideas for improving our project. But, it's important to pick and choose wisely because not everything they offer might fit our goals.

GSC's mobile app is great at keeping folks updated on the newest movies and making it easy to buy tickets. But when it comes to being a one-stop hub for movies and TV shows, it lacks it. It needs to do better in storing content, improving its interface, and including more info on TV shows.

IMDb is like a huge treasure trove of info about movies and TV shows. It's got tons of features, but needing an account might be a hassle for some. Plus, because they're so strict with their updates and have such a massive database, some title can take a while to get updated.

Letterboxd is for serious movie enthusiast and shares some good stuff with IMDb. But it struggles with making its interface to mobile viewer to browse smoothly. Its interface isn't as user-friendly, and some cool features are only available if you pay for a subscription.

So, taking all of this into account, we're thinking of picking the best bits from each to fit our project goals. We'll focus on making it easy for users to get what they need, having a lot of content, and making sure everything is simple to use. We'll learn from these examples but also be smart about leaving out stuff that might not help or be too much. This whole study gives us a plan to make our project better, a platform that's all about users, packed with great content, and super easy to navigate and accessible for everyone.

# CHAPTER 3

## METHODOLOGY

### 3.1 Introduction

The approach we have opted for in developing this mobile application is the Agile Methodology. The reason why I've chosen this method because it allows us to break down the process into distinct stages, enabling continuous improvement as we move forward. With Agile Methodology, we were able to actively involve users and receive their feedback, ensuring their requirements are met throughout the development journey. This dynamic approach also lets us keep refining and enhancing the app, keeping it up-to-date and in line with what users truly want. (Kissflow, 2020)

### 3.2 Agile Methodology

The approach we've adopted for developing this mobile application is the Agile Methodology. We've chosen this method because it allows us to break down the process into distinct stages, enabling continuous improvement as we move forward. With Agile Methodology, we actively involve users and receive their feedback, ensuring that their needs are met throughout the development journey. This dynamic approach also allows us to keep refining and enhancing the app, keeping it up-to-date and in line with what users truly want.

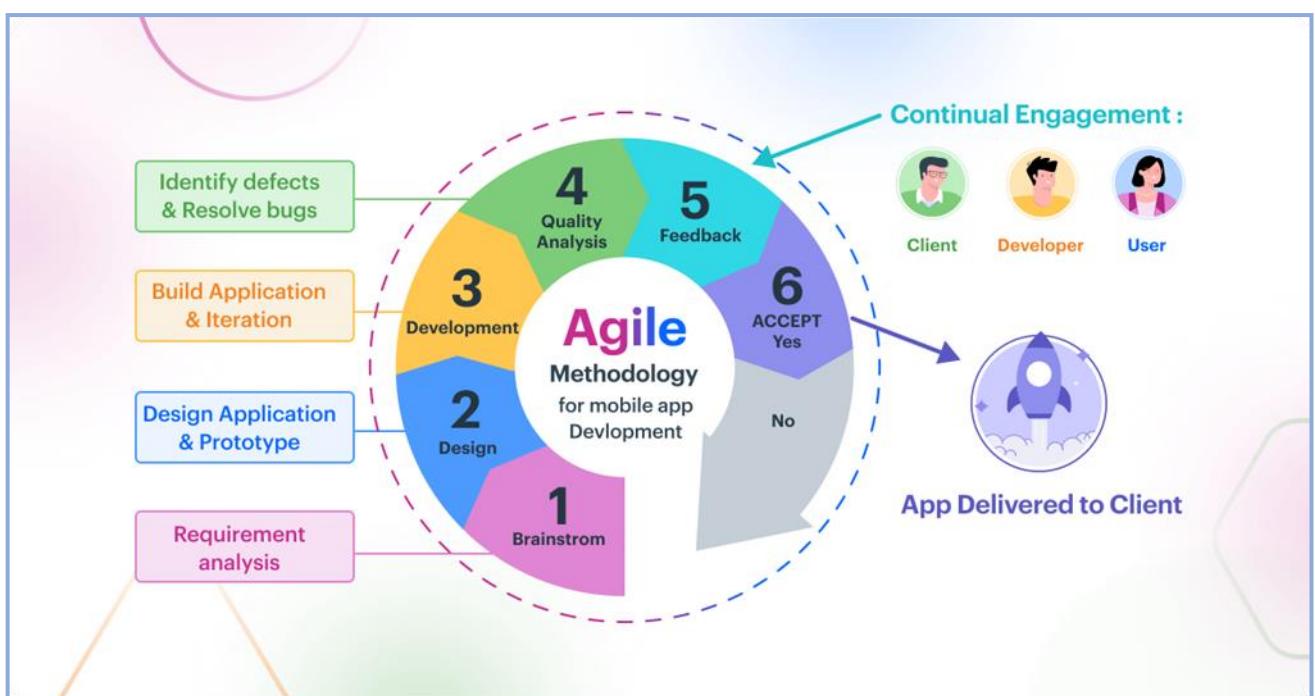


Figure 3.2.1 Agile Methodology Diagram (Kissflow, 2020)

### **3.3 Phases in Agile Methodology**

In this methodology approach, there are a total of six phases that can be applied throughout the course of this project. These phases can be described as follows.

#### **Phase 1: Brainstorming**

During this phase, it is essential for us to analyse the project that we're need to undertake. This involves activities such as interviewing customers or users to understand their actual needs and identify any missing services. After dedicating several days to researching and examining the shortcomings of existing systems or apps, I am ready to propose the implementation of Flix Fusion to the supervisor.

#### **Phase 2: Design**

The next step in this approach involves creating the application from the ground up. To meet user requirements, it's crucial for us to stay focused on the primary purpose and key objectives that prompted this project. Additionally, we need to develop a mock-ups prototype that both the user and my supervisor can review to identify areas for enhancement and better understanding of what's missing and needed

#### **Phase 3: Development**

This phase, which marks the beginning of the coding process, becomes significantly more manageable when we use the prototype as a guide and the design as a blueprint. By working in this collaborative manner, we build the application with greater efficiency and effectiveness compared to starting entirely from scratch. This approach not only accelerates development but also ensures a smoother implementation of our design vision.

#### **Phase 4: Quality Analysis**

While Phase 3 is in progress, Phase 4 advances in parallel. In Phase 4, we collaborate closely with the supervisor to maintain and enhance the app's quality. Any issues or shortcomings identified during the mobile app's development are promptly addressed to ensure that the final product is refined and polished before it's delivered to the users.

#### **Phase 5: Feedback**

Phase 5 plays a pivotal role in this methodology and project. It's the stage where our initial test users are granted exclusive access to the mobile app, with a critical mission to identify and report any issues, including bugs or glitches, to the development team. This

phase serves as the ultimate step in our methodology, encouraging collaboration among the app developer, supervisor, and end users, all working together to pinpoint and address any flaws found in the app.

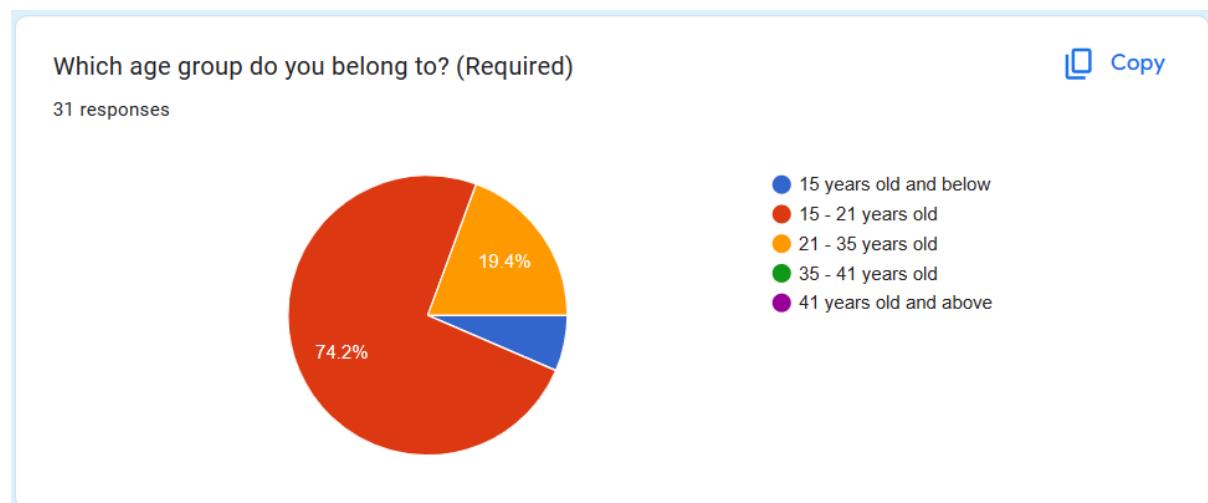
## Phase 6: Acceptance & Rework

The final step in this Agile Methodology involves making crucial decisions. It's where we assess whether the app is prepared for a public release. If it is, the app will be launched and made available to everyone. But if it's not quite ready, we'll conduct a comprehensive review during the initial phase to pinpoint and make the needed enhancements.

## 3.4 Data Gathering and Requirement

In order to gather data required for this project, we have decided to do a quick questionnaire to our test users. We use Google Form to make this data gathering much easier and distribute to them through Emails, WhatsApp, and Telegram. By using these ways to gather what users wanted in our app, we got loads of feedback and insights that really help shaped how we built the project system.

### 3.4.1 User requirement analysis



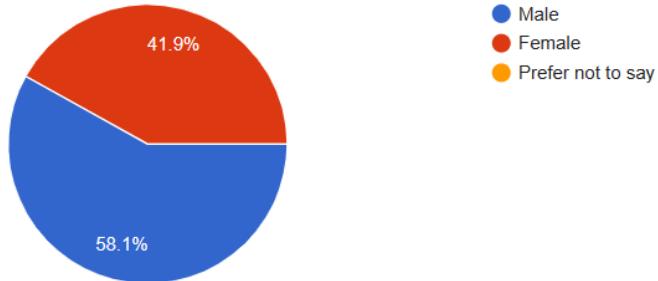
**Figure 3.4.1.1** Age Group Pie Chart

On our first question of the questionnaire, we have decided to ask for their age. This question is used to identify which age group is the most active in streaming Movies and TV Shows. Turns out a huge chunk, that is 72.2% of the result are teenagers and young adults, followed by 19.4% by adulthood and lastly 15 years and below. It's pretty clear that teenagers and young adult nowadays the most active in streaming movies and TV shows and it's all thanks to how the internet has evolved.

What is your gender? (Required)

 Copy

31 responses



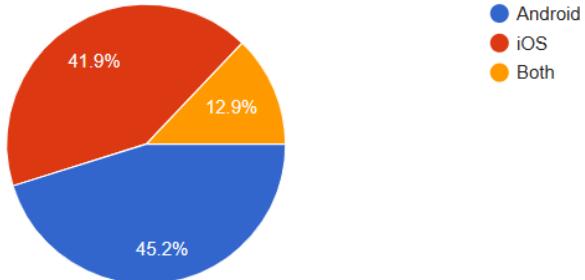
**Figure 3.4.1.2** Gender Pie Chart

Next on the questionnaire we decided to ask which age group is the most active in streaming movies and TV shows which to our surprised, 58.1% are male, and 41.9% are female. This has proven that male are the most active in watching either movies or TV shows.

Which **mobile** operating system did you use?

 Copy

31 responses

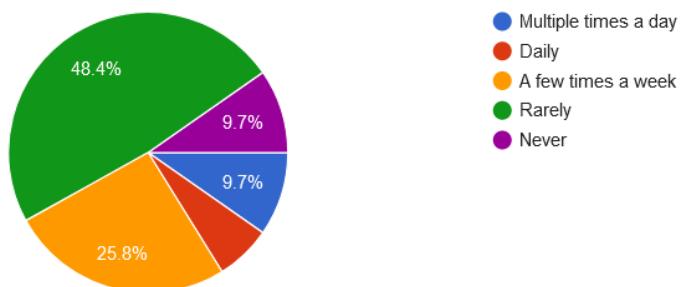


**Figure 3.4.1.3** Mobile Operating System Pie Chart

We also trying to find out what OS are they mostly used and to our surprised, Android makes up the whole pie chart with 45.2%, followed by iOS 41.9% and some are using both which indicates that some users have iPad and Android phones.

1. How often do you use a web browser or search engine to look up information about movies or TV shows? Copy

31 responses

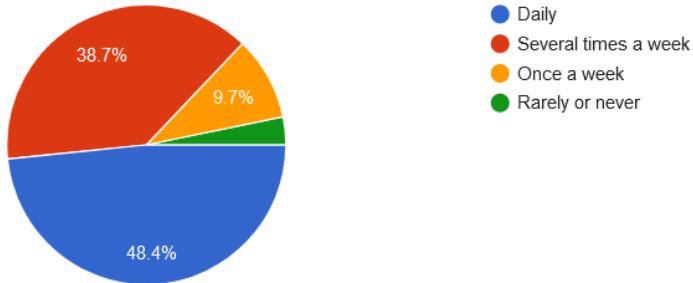


**Figure 3.4.1.4** Search Frequency Pie Chart

For this question, we decided to know how often does users search for details about a specific movies or TV shows online, and we have found out that most of them are rarely with the percentage of 48.4%. This indicates that most of our test users are a casual viewer and not someone who keen in conducting research for a movies or TV shows.

2. How often do you watch movies or TV shows? Copy

31 responses



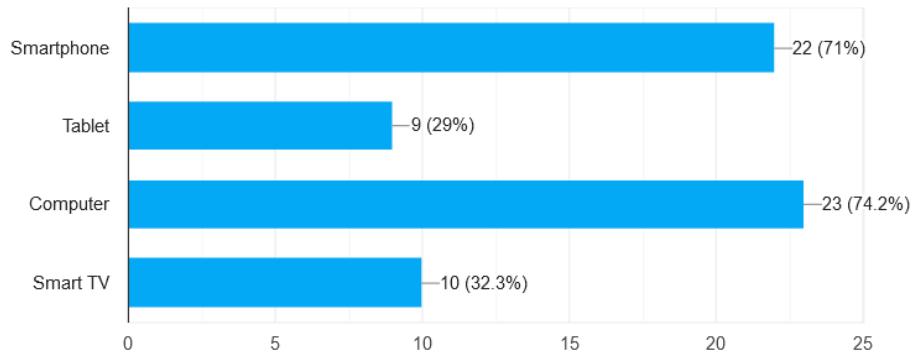
**Figure 3.4.1.5** Movies and TV Shows Streaming Frequency

For this question, we would like to know how often does users streaming Movies and TV Shows. It appears that majority of them, around 48.4% are streaming movies and TV shows daily, followed by 38.7% several times a week.

3. What device do you primarily use for streaming movies and TV shows? (Select all that apply)

 Copy

31 responses



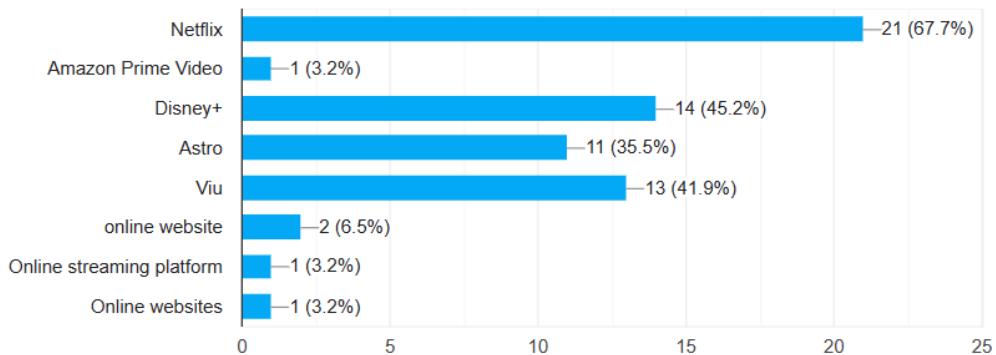
**Figure 3.4.1.6** Most Popular Device for Streaming Bar Chart

For this question, we will be asking the user most used streaming service, and to our surprised most of the users are using a smartphone with the percentage of 71% followed by computer 74.2%. This could mean that, they are more prefer with the mobility and easiness of using a smartphone compared to carrying a big and bulky computer just so they could watch their favourites movie.

4. Which streaming platforms do you currently use for watching movies or TV shows? (Select all that apply)

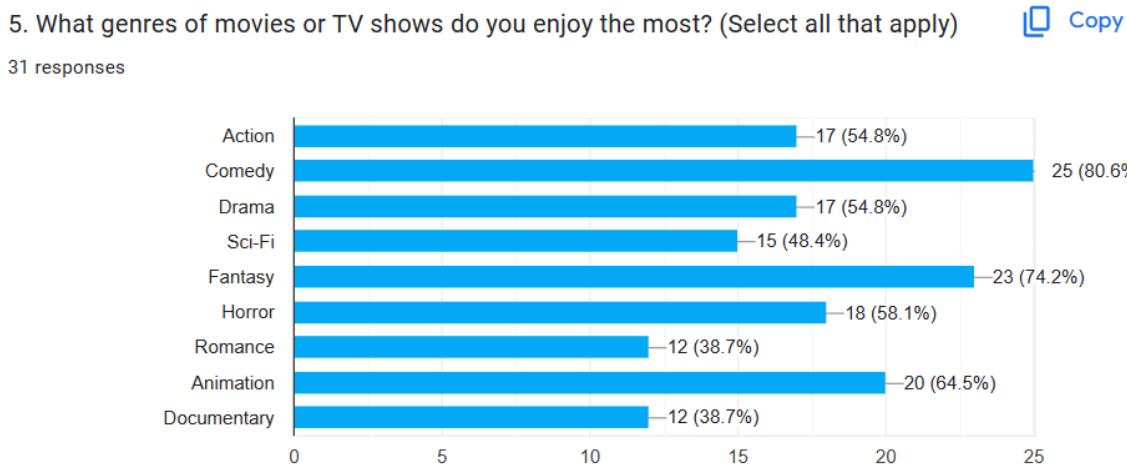
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31 responses



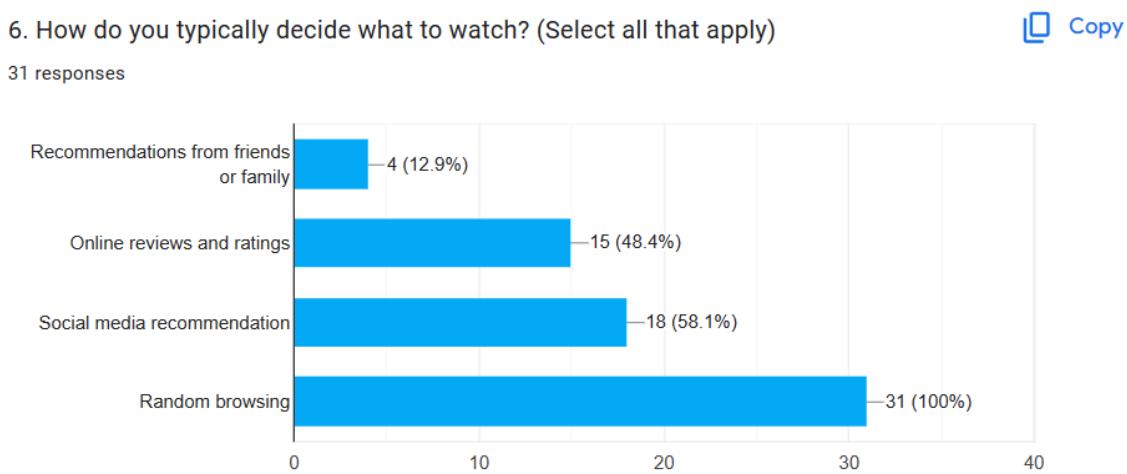
**Figure 3.4.1.7** Most Popular Streaming Services Bar Chart result

For our next question we will be asking the user on what streaming platform or service that they use. Most of the chooses to use Netflix with a whopping percentage of 67.7%. This explain the number if user that chooses to streams their movies and TV shows on smartphone.



**Figure 3.4.1.8** Favourites Genres Bar Chart

This question is to ensure that the genres browsing section that we will be developing will be used by our user.



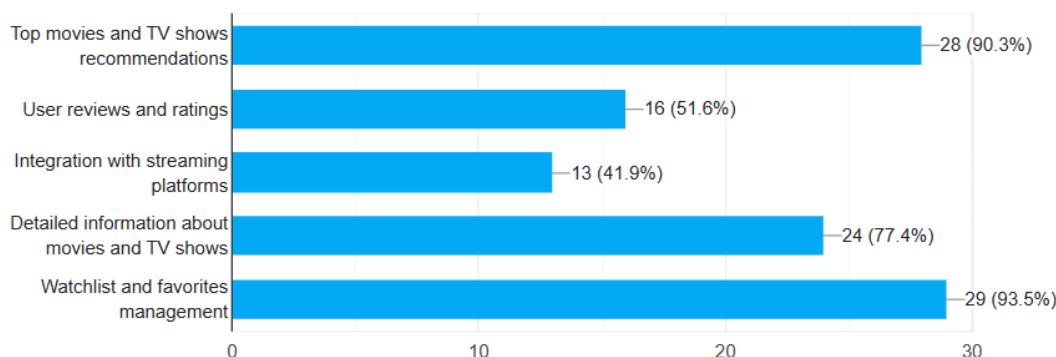
**Figure 3.4.1.9** How User Discover New Titles bar Chart

From this question we can see on how does the users discovers new titles for both movies and TV shows. We can confirm that a large number of them discovered it through random browsing with a large percentage of 100%, followed by social media recommendation with the percentage of 58.1%. This clearly shows that most users prefer using mobile devices like Android or iOS to discover new movies or TV shows.

7. What features are important to you in a movie and TV show discovery app? (Select all that apply)

[Copy](#)

31 responses



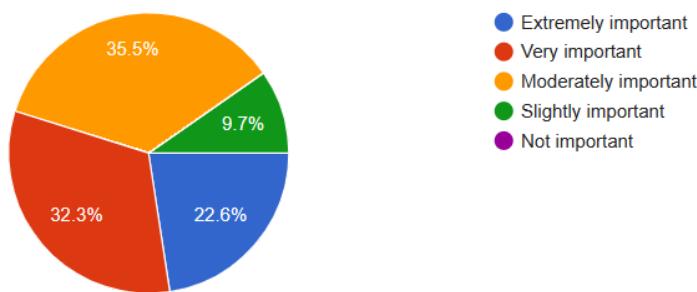
**Figure 3.4.1.10** Important Features in Flix Fusion Bar Chart

For this question, we will be asking the user on what kind features that they thought important to be included in the Flix Fusion app. Most of the answers can be seen that they prefer to have the ability of adding movies and TV shows into Favourites and Watchlist compared to anything else. Second highest is the top movies and TV shows recommendations.

8. How important is it for you to have access to accurate and verified information about certain movies and TV shows?

[Copy](#)

31 responses



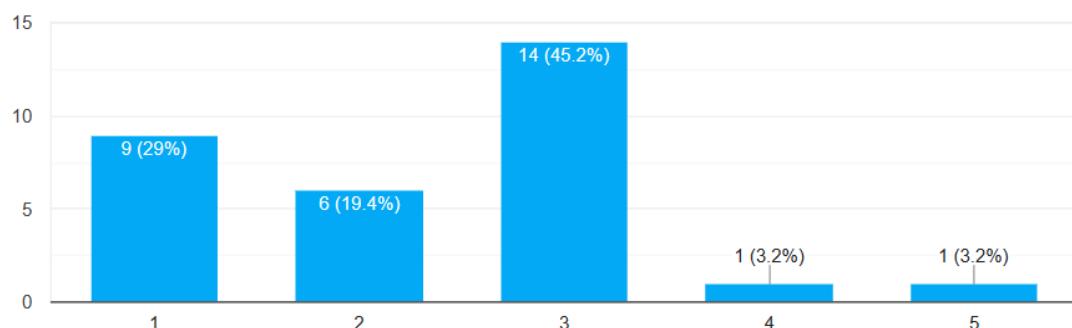
**Figure 3.4.1.11** Accessing into Accurate Information Pie Chart

Next we would like to have the user knowledge whether they wanted to know if the information displayed are authentic or not, and some feels like its important while others not.

9. How important is it for the app to provide information about cast and crew, and other information?

[Copy](#)

31 responses



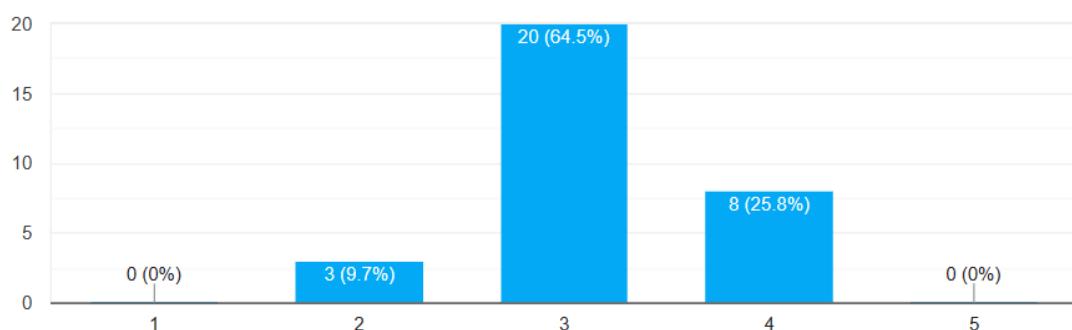
**Figure 3.4.1.12** Importance of Details Information Bar Chart

This question is to evaluate the amount of detail the user wanted to see for a movie or TV shows.

10. Based on your experience, how would you rate the ease of searching for movies or TV shows information online?

[Copy](#)

31 responses



**Figure 3.4.1.13** Ease of Searching using Web Browser Bar Chart

This question to determine if they find it easy to find information using the web browser, and as a casual user we can see that some feels its moderates.

11. What challenges have you faced when trying to find reliable information about movies or TV shows online?

31 responses



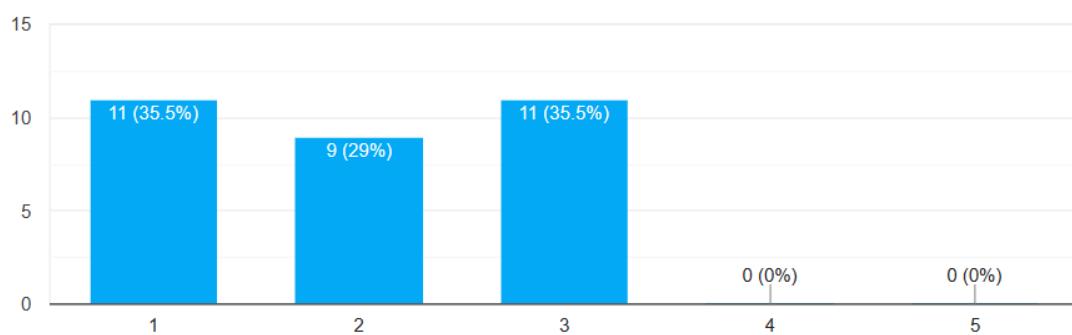
**Figure 3.4.1.14 Challenges Faced from Searching Online**

Here are some of the answer on reason why some users feels its difficult to use the web browser to find movie and TV show details online.

12. How user-friendly do you expect the Flix Fusion app's interface to be?

Copy

31 responses



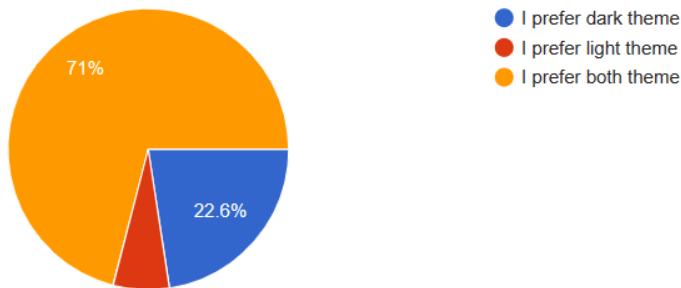
**Figure 3.4.1.15 User Friendly Interface Evaluation Bar Chart**

This question to asked the user wether they expect on how user friendly the app inteface would be, and most of them chooses to be the most user friendly.

13. Do you prefer Flix Fusion app interface to be dark theme or light theme?

 Copy

31 responses



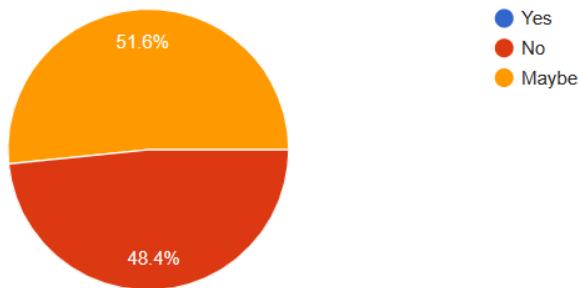
**Figure 3.4.1.16** App Theming Pie Chart

For this question we would like to know users preference on theme. Most of them chooses to be able to change the theme between dark and light mode.

14. Would you like Flix Fusion app to offer in-app purchases or premium features?

 Copy

31 responses



**Figure 3.4.1.17** Premium Subscription Acceptance

For our last question, we would like to know if the user wanted a premium features like LetterBoxd does, and majority of them choose maybe which and the rest choose no. From this we can see that most of the users are not in mood to pay just to watch for movies and TV shows information.

### **3.4.2 Software Requirement**

#### **IV. Ionic Framework**

The main structure for this mobile app. Ionic is a framework making it easy to develop mobile app with its already exiting packages and pre-built structure. Both the frontend and backend are prebuilt in one software such as Angular.

#### **V. Node.js**

Node.js is a JavaScript runtime environment. This enables the ability to run a JavaScript code such as what contain in Ionic app project outside a web browser.

#### **VI. Visual Studio Code**

A code editor with tons of features and add-ons developed by Microsoft. This code editor offer a minimalist interface and function yet able to handles huge project with its ability to compile codes. The programming language that will be used is:

- HTML**

Hypertext Markup Language will be used to structure and design the app and its function such as buttons, anchor links and more.

- SCSS**

SCSS is a programming language that will be used to design the HTML code. This programming language act as an instruction on where the button should be placed, the size of the text and the font colour.

- TypeScript**

TypeScript is a successor of JavaScript. It is a much simpler and improvise language compared to JavaScript. TypeScript will be used as function such as what would the button do if pressed, or how will the text be displayed if they on a bigger screen device.

#### **VII. TMDB API**

TMDB API will be the main structure of this project. The API provided by The Movie Database will be used to display information about a movie or TV show.

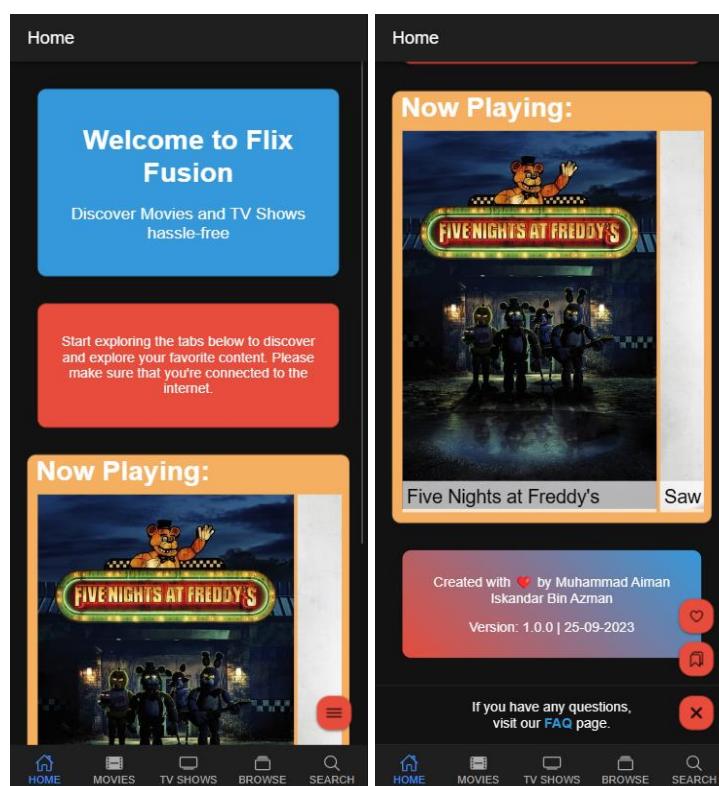
### 3.4.3 Hardware requirements

#### Laptop: HP Pavilion 14-CE3065TX

- Operating System: Windows 11 Pro
- Processor: Intel® Core™ i5-1035G1 CPU @ 1.00GHz
- System Architecture: 64-bit Operating System, x64-based processor
- Storage: 500 GB
- Memory (RAM): 16 GB

## 3.5 Interface Design

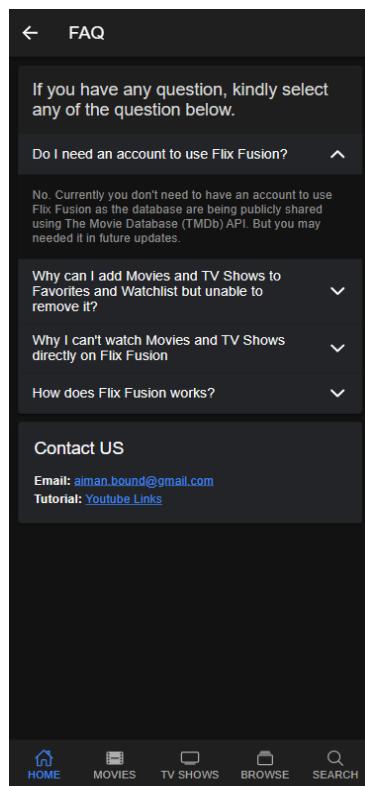
- Home Page



**Figure 3.5.1** Home page of Flix Fusion

This is the home page of Flix Fusion. Inside this page, user can see the currently playing movies in the theater, go to the FAQ page and go to the Favourites and Watchlist page.

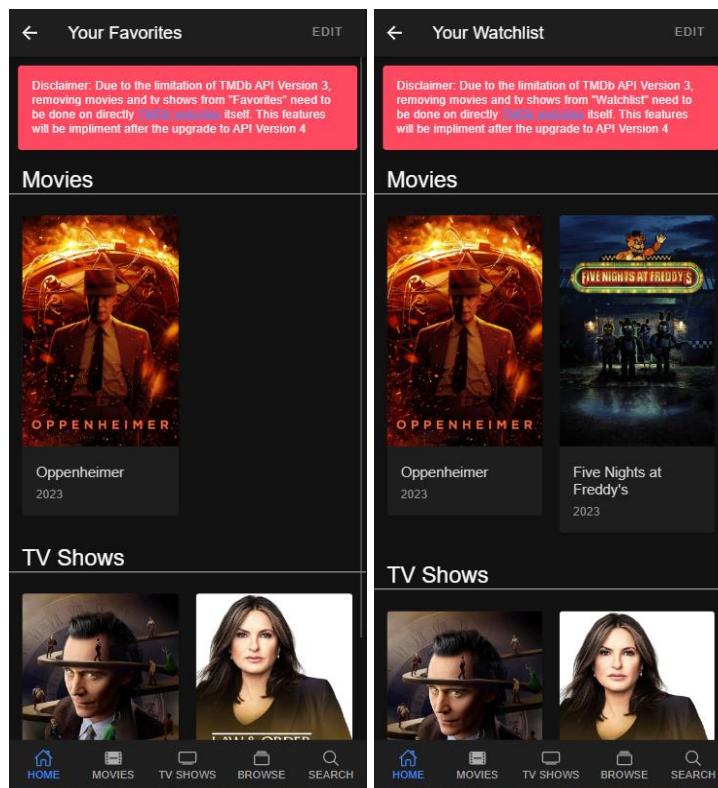
- **FAQ Page**



**Figure 3.5.2** FAQ page of Flix Fusion

Here user can find the Frequent Asked Questions (FAQ) of the app. User could also click on the email provided in case they wanted to send feedback to the Admin. User could also go the YouTube URL to see more tutorials on how they can use the app.

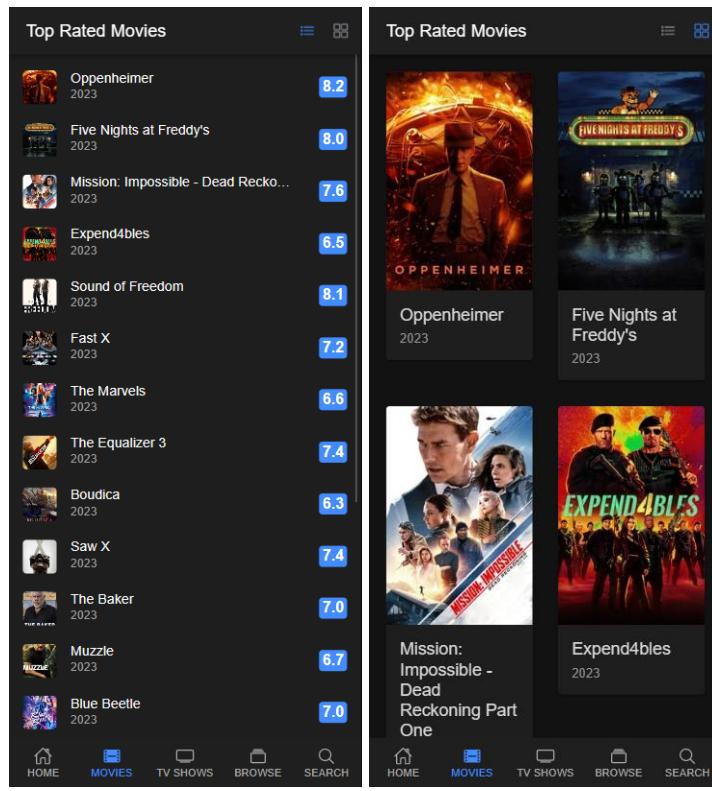
- Favourites and Watchlist page



**Figure 3.5.3** Favourites page of Flix Fusion & **Figure 3.5.4** Watchlist page of Flix Fusion

On figure above, user can find their movies and TV shows that they have added to their Favourites and Watchlist for later streaming and revisiting.

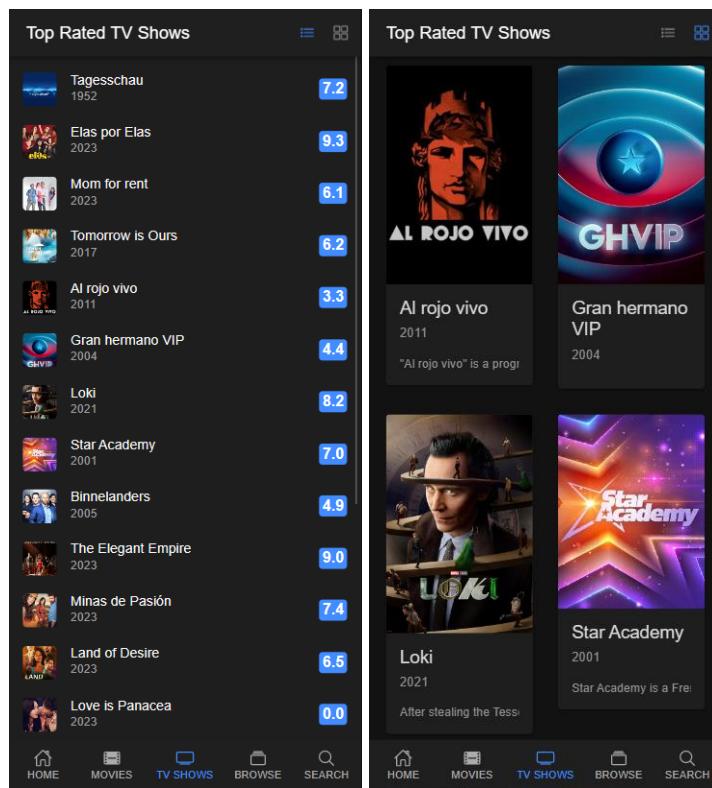
- **Top Rated Movies page**



**Figure 3.5.5** Top Rated Movies page of Flix Fusion

On this page user can browse for top rated movies that are being rated highest by certified movie reviewers. User can also change the view from list view to grid view for easier browsing and viewing.

- **Top Rated TV Shows page**



**Figure 3.5.6** Top Rated TV Shows page of Flix Fusion

On the next page user can browser for top rated TV shows by its rank. User could also change the view in this page from list to grid for easier browsing.

- Movie Details and TV Show Details page

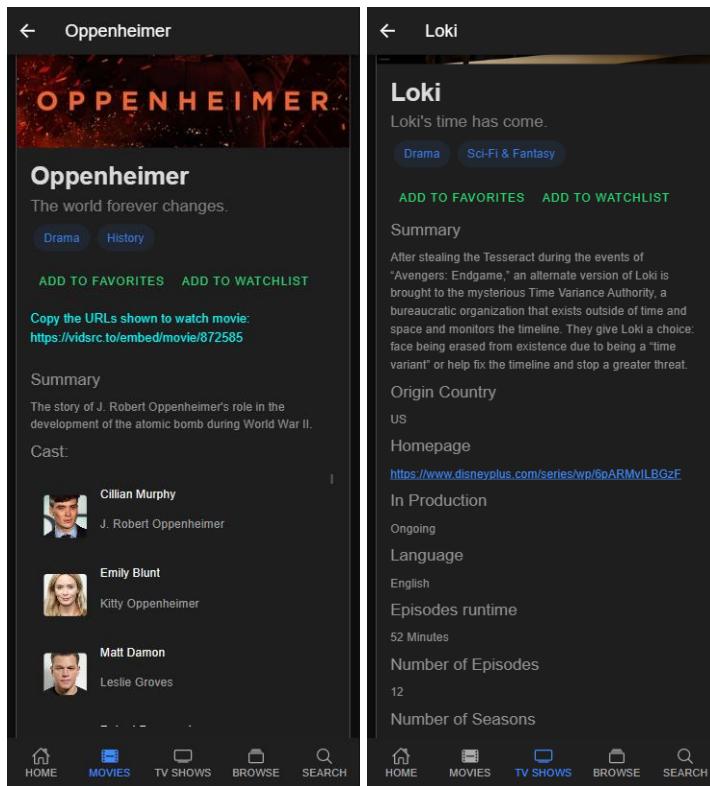
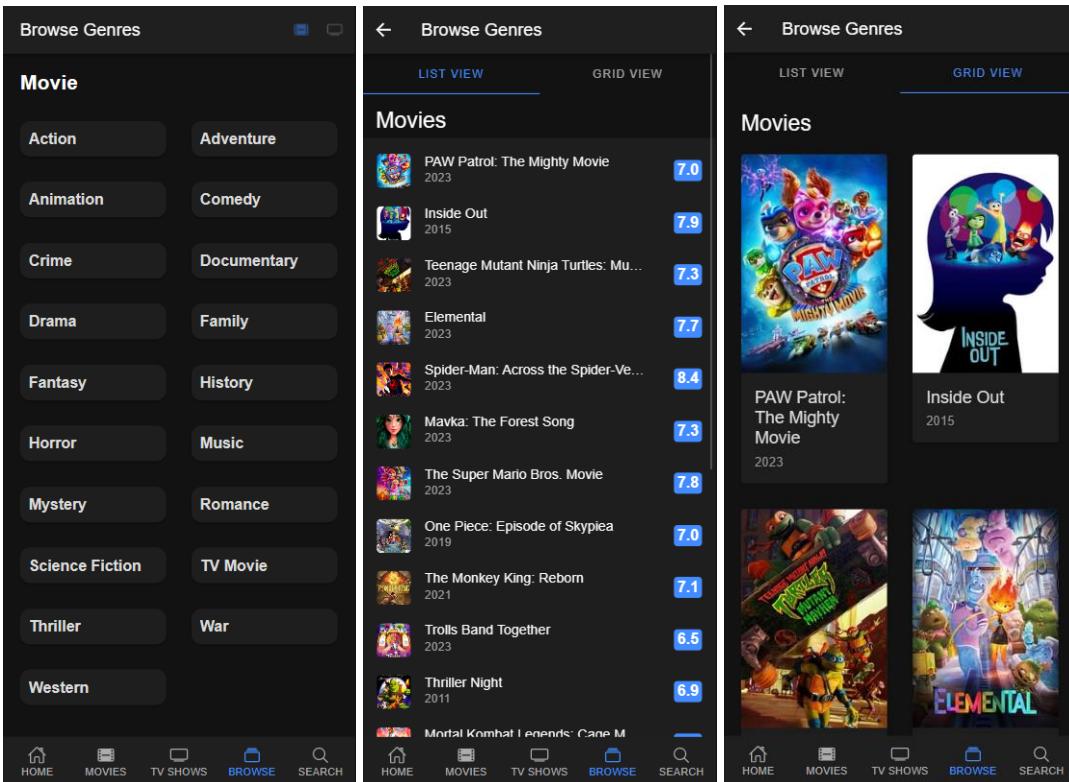


Figure 3.5.7 Movie Details page & Figure 3.5.8 TV Shows Details page

While on the Top Rated Movies or Top Rated TV Shows page, user can click on one of the title to see the in-depth details about the movie or TV show. On the movie details page, user could see the **Title**, **Genre**, **Add to Favourites** or **Watchlist** button, **Watch the movie** by following the URL's, **Summary**, list of **Cast** and **Crew** and more. Meanwhile on the show details page, user could see the **Title**, **Genre**, **Summary**, **Language** and more.

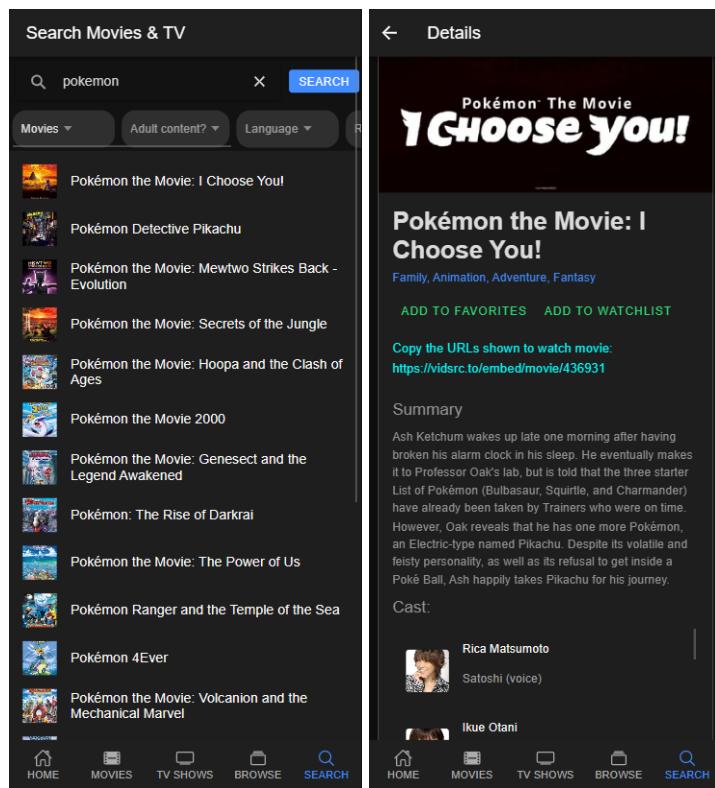
- **Browse Movie Genre page**



**Figure 3.5.9** Browse Movies Genres page of Fix Fusion

On this page, user could browse movies by selecting any of the the list of genres that available. User can also change the view from list to grid for easy browsing. Upon click on one of the movie, user can see the in-depth details about it.

- **Search Movies page**



**Figure 3.5.10** Search page of Flix Fusion

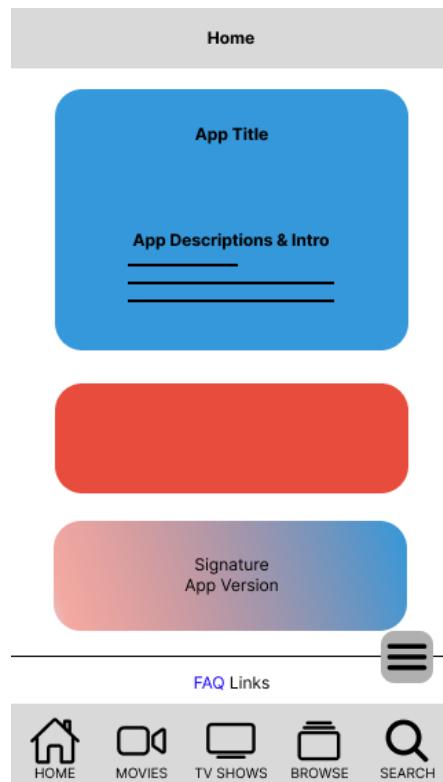
On this page, user can search for movie that they desire. User can filter the search result according to the language, region, adult content, and more. After the result has been displayed, user can click on one of the movie to see the details of the movie, watch the movie online or add them to either “Favourites” or “Watchlist”.

## 3.6 System and Application Modelling

### 3.6.1 Wireframe

Here are some of the early wireframe plans that we have decided. Some of the features are later implemented into the application.

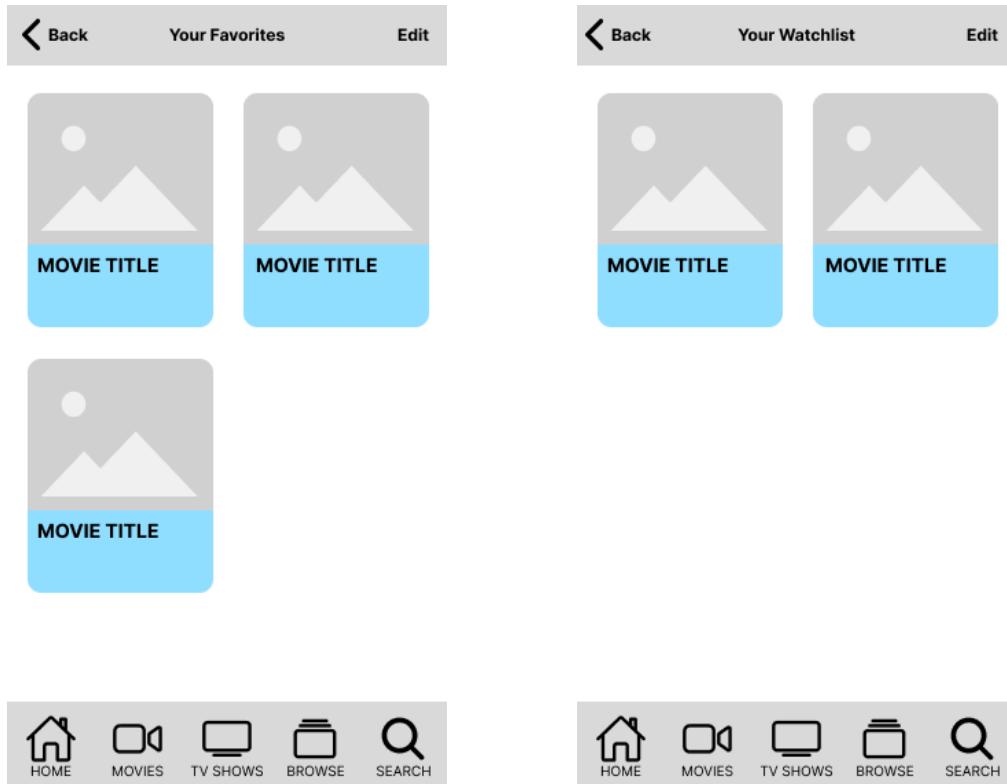
- **Home Page**



**Figure 3.6.1.1** Wireframe of Home page of Flix Fusion

User can navigate through the home page to go to FAQ page, Favourites page and Watchlist page just from the home page alone. User can also see the app author and version. Using the tabs below, user can navigate throughout the app such as Movies, TV Shows, Browse (Browse movie through genres) and Search for movies.

- Favourites page and Watchlist page



**Figure 3.6.1.2** Favourites page of Flix Fusion & **Figure 3.6.1.3** Watchlist page of Flix Fusion

On this page, user can see their favourites movies and TV shows. Meanwhile on the Watchlist page, user can see the watchlist movies and TV shows.

- FAQ page

The screenshot shows the 'Frequent Ask Question' section of the Flix Fusion app. It features three expandable questions: 'Question 1', 'Question 2', and 'Question 3', each preceded by a downward arrow icon. Below this is a 'Contact Us' section containing email and YouTube tutorial links. At the bottom, there is a navigation bar with icons for Home, Movies, TV Shows, Browse, and Search.

**Frequent Ask Question**

Question 1

Question 2

Question 3

**Contact Us**

Emails: [example@gmail.com](mailto:example@gmail.com)

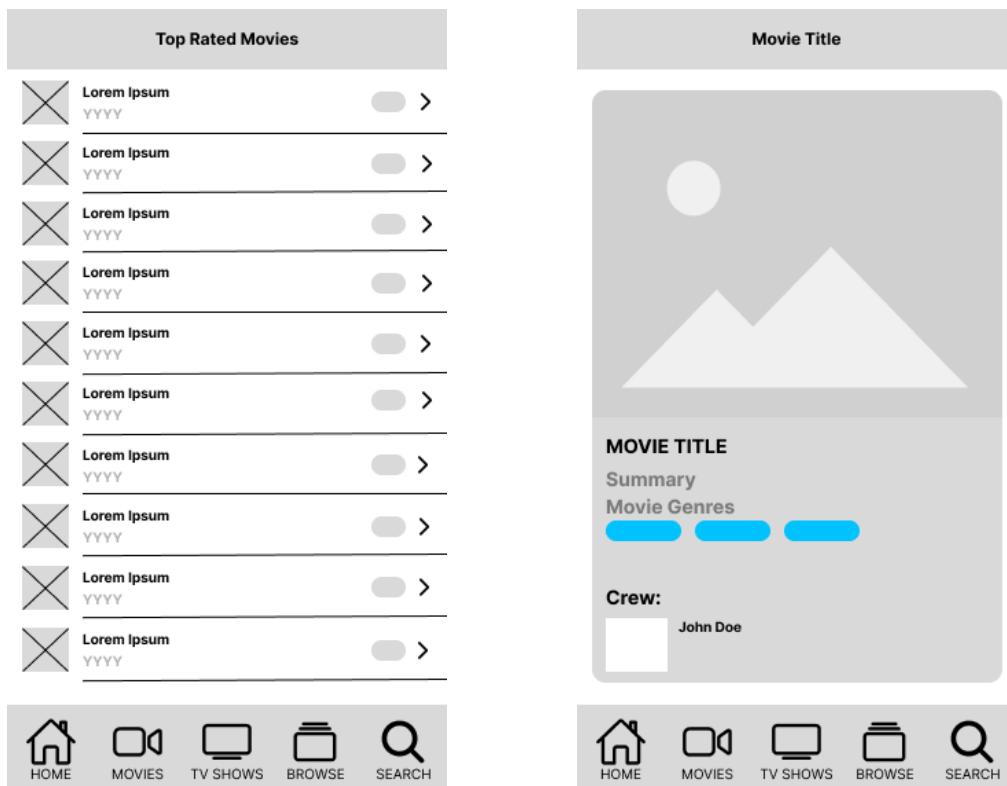
Tutorials: <https://youtube.com/flixfusiontutorialplaylist>

HOME MOVIES TV SHOWS BROWSE SEARCH

**Figure 3.6.1.4** FAQ page of Flix Fusion

Here is where the FAQ or Frequent Ask Question page would be. In this page users can see a bunch of question and see the solution to each of the question. User can also contact the support team and see the tutorial on how they can use the app by clicking on the YouTube links.

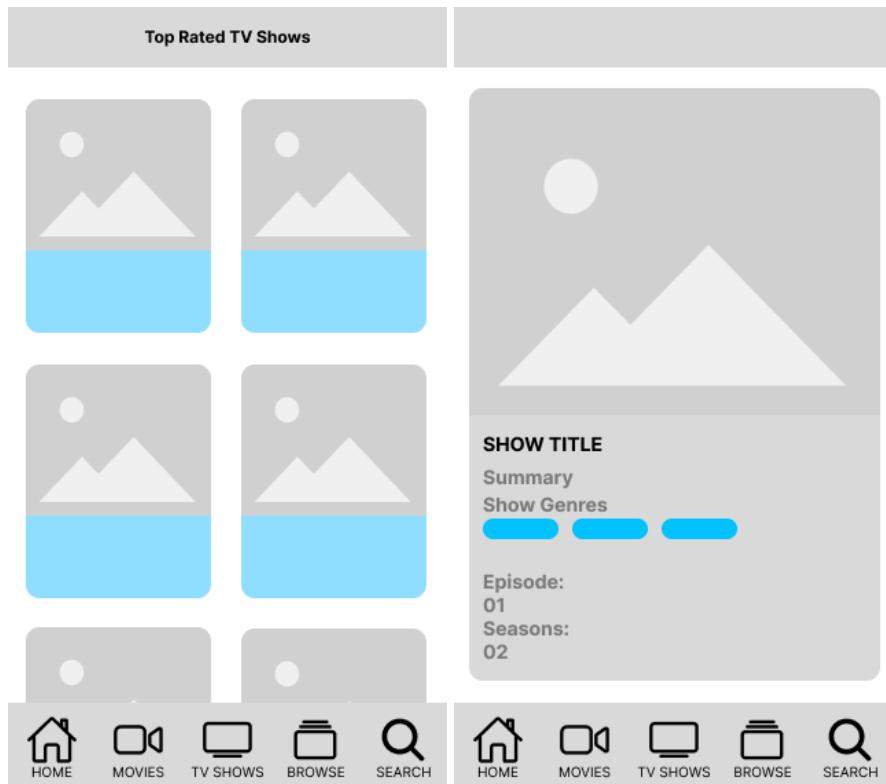
- **Top Rated Movies page and Movie Details page**



**Figure 3.6.1.5 Top Rated Movies page & Figure 3.6.1.6 Movie Details page**

On the Top-Rated Movies page, user can find movie that has been rated highest by another user. Meanwhile, user can click on any of the movies and see the in-depth details about a movie title. User can find details such as Summary, Genres, Crew, Cast and more.

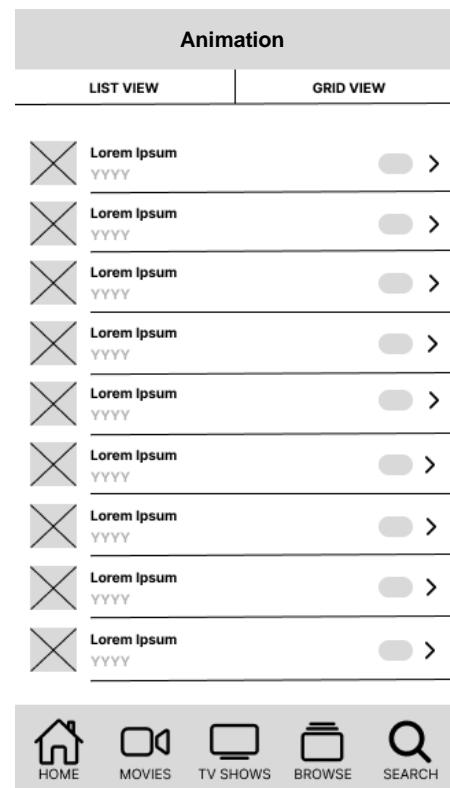
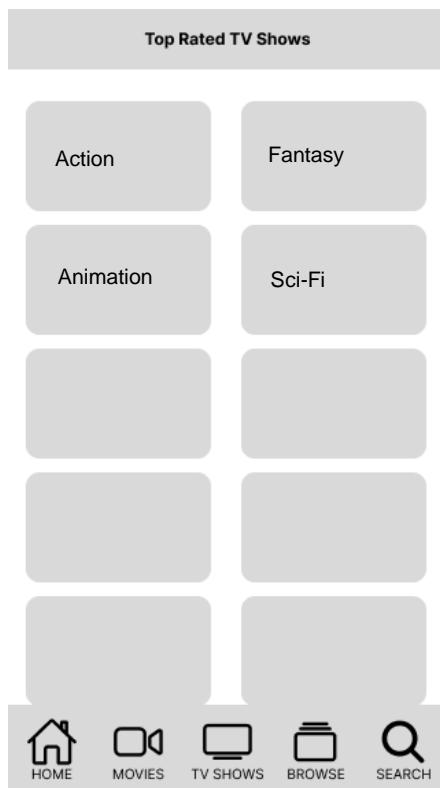
- **Top Rated TV Shows page and TV Show Details page**



**Figure 3.6.1.7 Top Rated TV Show page & Figure 3.6.1.8 TV Show Details page**

On this page, user can browser for Top Rated TV Show, and clicking on one of the show titles will redirect the user to a show detail where user can know more about the show such as number of episodes, number of seasons, summary and more.

- **Browse Genres page**



**Figure 3.6.1.9** Browse Movie Genres page & **Figure 3.6.1.10** Browse movies by its genres page

On this page, user can see the list of available movie genres they can discover. For example, if the user chooses to see a list of movies with “Animation” genre, they can click on one of the selections.

- **Search page**

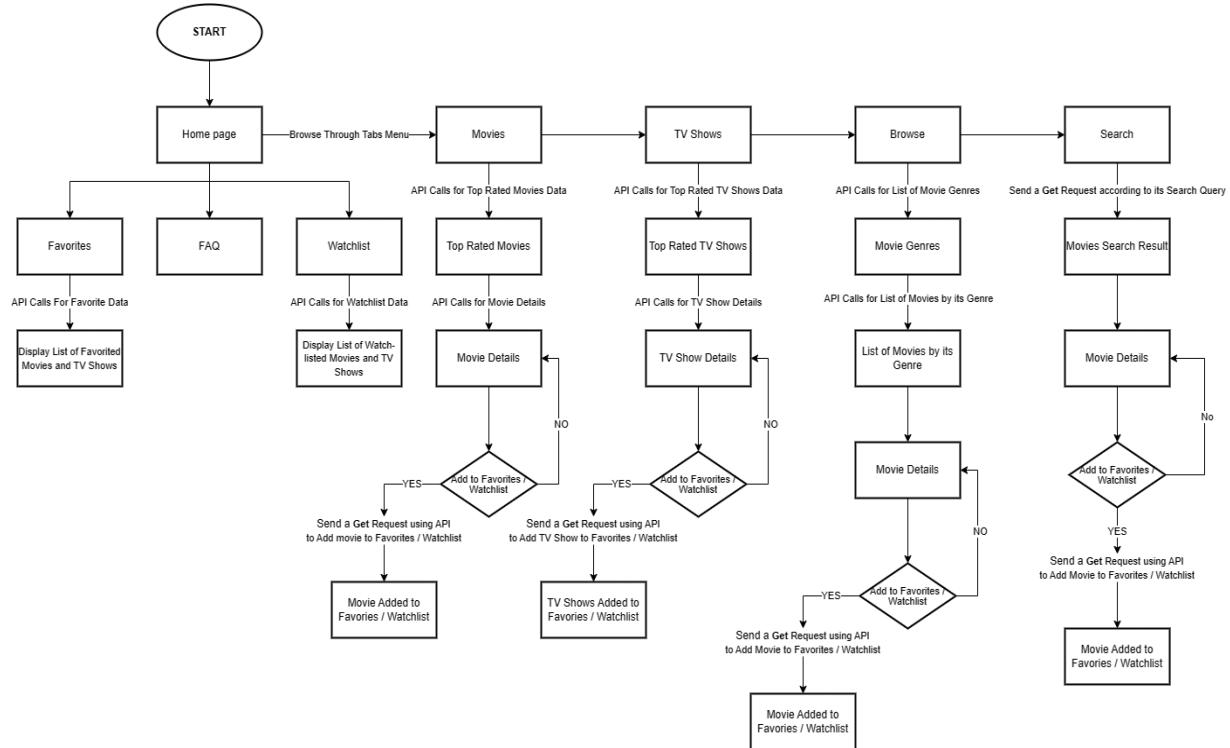


**Figure 3.6.1.11** Search page of Flix Fusion

On our last page of Flix Fusion is the “Search” page. User can try and search for their favourites titles if they can’t find it anywhere on the top-rated movies or TV shows. By using the filter bullet, user can filter their region, language, age rating, and more.

## 3.7 Application Design

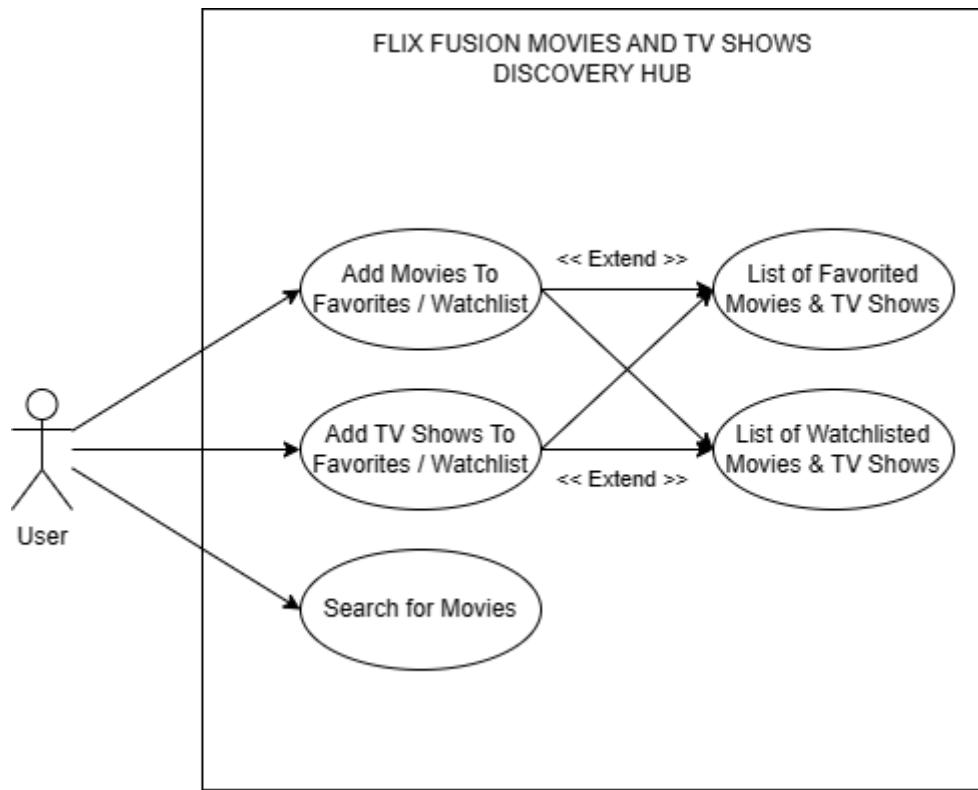
### 3.7.1 API Calls Process Diagram Route



**Figure 3.7.1.1** Diagram of API Calls Process Route

On figure above we can see the diagram of how the API Calls is being used to display information on our Flix Fusion app. These API Calls are from The Movie Database (TMDb) open-source database. There is only one user for this app. The user will start from he “Home” page and gradually navigate throughout the app using the “Tabs” menu at the bottom. User can add Movies and TV Shows to both “Favourites” and “Watchlist” by accessing through the Movie details or TV Show details page. User can discover Top Rated Movie and TV Shows to find new title that they aren’t familiar with. If they can’t find any title they desire, they can use the “Search” page to find it.

### 3.7.2 Use Case Diagram



**Figure 3.7.2.1** Use Case Diagram of Flix Fusion

Flix Fusion is designed to fulfil the needs of a singular end user, the customer, without the necessity for account registration or login. This user-centric app benefits from the capabilities of The Movie Database (TMDb) API. Users have the freedom to browse and search for movies effortlessly through the app's interface, empowered by the extensive TMDb database. The absence of user accounts doesn't restrict their experience; instead, customers can conveniently add preferred movies and TV shows to their favourites or watchlist. This app ensures easy access to saved content, allowing users to revisit and view their curated selections at their convenience, making the movie and TV show discovery experience hassle-free and accessible.

## **3.8 Conclusion**

As a conclusion, we can see the methodology that is suitable for our mobile app that mainly focused on the users. The project also has taught us about the importance of data gathering before starting any development to ensure that the requirement by the user has been fulfilled and met. This chapter also teach us on how to design a good and interactive design so that the user can easily navigate through the systems.

# **CHAPTER 4**

## **FINDINGS AND RESULTS**

### **4.1 Introduction**

On this chapter, we will discover is the mobile application that has been developed met the end user requirements and need. This chapter also will display a number of tests such as unit testing, product testing, integration testing and more. These tests have been conducted to ensure that there is no issue with the app and systems before its being released to the end user.

### **4.2 System Evaluation**

In order to ensure that all functions, codes, and elements works in our system, we have carried out a system testing for Flix Fusion.

#### **4.2.1 Unit Testing**

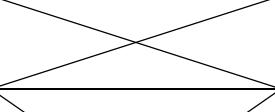
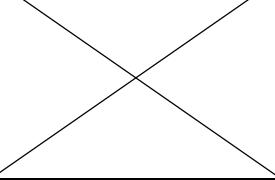
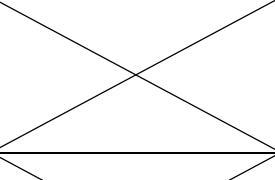
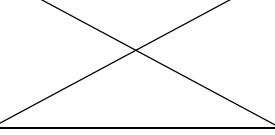
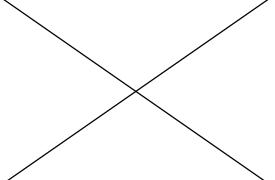
Unit testing focuses on testing small parts of code like functions, methods, or classes to make sure they do what they're supposed to do. This kind of testing checks if these code bits work on their own and helps prevent mistakes when they're put together into whole software. It's super important in software making because it gives fast feedback on how reliable the code is, helps find bugs, and lets developers keep making things better. In the end, doing unit testing helps us create software that's solid, reliable, and easy to take care of.

#### **Unit Testing: End User interaction**

**Objectives: User will interact with Flix Fusion to use and see different types of content.**

**Table 4.2.1.1 Unit Testing Result**

No.	Scenario	Input Data	Expected Output	End Result
1.	Displaying “Now Playing” Movies	User can scroll through the carousel of movie poster	A carousel of currently playing movies displayed to the user	PASS
2.	Displaying		Displaying Favoured	PASS

	“Favourites” Movies and TV Shows		movies and TV shows to the user	
3.	Displaying “Watchlist” Movies and TV Shows		Displaying watchlisted movies and TV shows to the user	<b>PASS</b>
4.	“Pull to Refresh” Favourites page	User will pull the page from top to bottom to refresh result	Favourited movies and TV shows result will be refreshed	<b>PASS</b>
5.	“Pull to Refresh” Watchlist page	User will pull the page from top to bottom to refresh result	Watchlisted Movies and TV Shows result will be refreshed	<b>PASS</b>
6.	Display Top Rated Movies		Top rated movies result will be displayed	<b>PASS</b>
7.	Display Top Rated TV Shows		Top rated TV shows result will be displayed	<b>PASS</b>
8.	Display Movie Details	User will click on one of the movies in the Top-Rated Movies list	A detailed information about a movie being displayed to the user	<b>PASS</b>
9.	Display TV Show Details	User will click on one of the TV shows in the Top-Rated TV Shows list	A detailed information about a TV show being displayed to the user	<b>PASS</b>
10.	Display a list of available movie Genres		A list of genres such as Animation, Action and more being displayed	<b>PASS</b>
11.	Display Movies by its Genres	User will choose and clicked on one of the genres	A list of movies related to the genre will be displayed to the users	<b>PASS</b>

#### 4.2.2 Integration Testing

For integration testing, we will be testing on how does the API connects to the database and displayed the result in Flix Fusion. Other than that, the way each codes interact and connected to each other also will be tested such as add movies or TV shows to Favourites and Watchlist list.

#### Integration Testing: Elements functions and connection

**Objectives:** To ensure that all the elements are working and functional, and to check the way API being called.

**Table 4.2.2.1** Integration Testing Result

No.	Scenario	Input Data	Expected Output	End Result
1.	API Calls for “Now Playing” Movies		Display the list of “Now Playing” movies in theatre to the users	PASS
2.	API Calls for displaying Top Rated Movies	User switch to “Movies” page	A list of top-rated movies being displayed from heights top lowest bottom	PASS
3.	API Calls for Displaying Movie Details	User will click on one of the movies	A detailed information about a movie being displayed to the user	PASS
4.	Send an API GET request to the database to add movies to Favourites	User will click the “Add to Favourite” button to add movie into Favourite list	Movie added to Favourites and give user an alert indicating it	PASS
6.	Send an API GET request to the database to add movies to Watchlist	User will click the “Add to Watchlist” button to add movie into Watchlist list	Movie added to Watchlist and give user an alert indicating it	PASS
7.	Send an API GET request to the database to add TV	User will click the “Add to Watchlist” button to add TV show into Watchlist	TV show added to Watchlist and give user an alert	PASS

	show to Watchlist	list	indicating it	
8.	Send an API GET request to the database to add TV show to Watchlist	User will click the “Add to Watchlist” button to add TV show into Watchlist list	TV show added to Watchlist and give user an alert indicating it	<b>PASS</b>
9.	API Calls for displaying movies genres	User will click on the “Browse” tabs to go to the genres page	A list of movie genres will be displayed to the user	<b>PASS</b>
10.	API Calls for displaying movies by its genres	User will choose a genre and click it, bringing them to movies with that genre	A list of movies by its genres such as Action	<b>PASS</b>
11.	Search for movie	Search query “Pokemon”	A list of movies with the title Pokémon displayed to the user	<b>PASS</b>
12.	Contact support by clicking on the email anchor links	User clicked on aiman.bound@gmail.com	Clicking on the highlighted text will bring the user to their email client	<b>PASS</b>
13.	Goes to YouTube tutorial playlist	User clicked on Youtube links	Clicking on the highlighted text will bring the user to youtube app or website with playlist	<b>PASS</b>

#### 4.2.3 System Testing

Lastly our testing will be ended on system testing. The purpose of this testing is to ensure that all the element is function as intended such as the button to change view, switching to different pages, and more.

**Table 4.2.3.1 System Testing Result**

No.	Scenario	Input Data	Expected Output	End Result
1.	Scrolling through the “Now Playing” section	User will scroll on the now playing revealing more movies titles with poster	The “Now Playing” section reveal more titles and poster	<b>PASS</b>

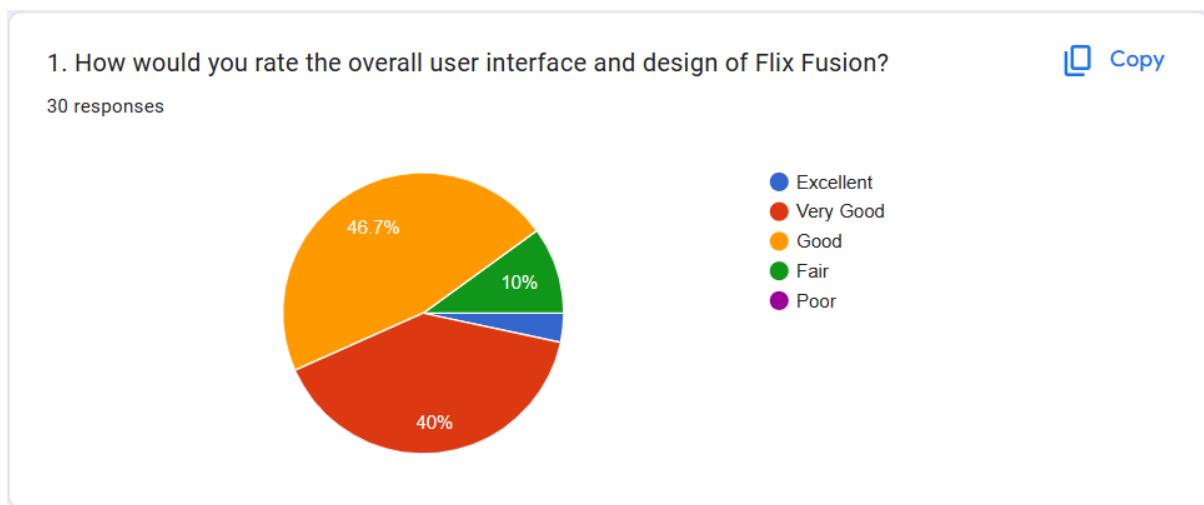
2.	Opening collapsible menu	User will click to open the collapsible menu at the bottom right	The collapsible menu reveals 2 menus with heart and book mark icon	<b>PASS</b>
3.	Navigating to the Favourites page	User will click on the heart icon	User will be taken to the Favourites page	<b>PASS</b>
4.	Navigating to the Watchlist page	User will click on the bookmark icon	User will be taken to the Watchlist page	<b>PASS</b>
5.	Navigating to the FAQ page	User will click on the highlighted FAQ text	User will be taken to the FAQ page	<b>PASS</b>
6.	Opening emails client, and youtube URL	User will click on the highlighted email address and youtube URL	User will be taken to their email app and to the youtube playlist	<b>PASS</b>
7.	Navigating to the "Movies" page	User will click on the Movies tab at the bottom of the screen	User will be taken to the Top Trending Movies page	<b>PASS</b>
8.	Change the view from list to grid	User will click on the view option at the top right	The view will change from list to grid	<b>PASS</b>
9.	Opening a movie details page	User will click on one of the movies	User will be taken to the movie details page with an information about that movie	<b>PASS</b>
10.	Adding Movies to Favourites	User click on the "Add to Favourites" button	Movie added to Favourites with an alert displayed to the user indicating it success	<b>PASS</b>
11	Adding Movies to Watchlist	User click on the "Add to Watchlist" button	Movie added to Watchlist with an alert displayed to the user indicating it success	<b>PASS</b>
12.	Navigating to the "TV Shows" page	User will click on the TV Shows tab at the	User will be taken to the Top Trending TV	<b>PASS</b>

		bottom of the screen	Shows page	
13.	Change the view from list to grid	User will click on the view option at the top right	The view will change from list to grid	<b>PASS</b>
14.	Opening a TV show details page	User will click on one of the TV shows	User will be taken to the TV show details page with an information about that movie	<b>PASS</b>
15.	Adding Movies to Favourites	User click on the "Add to Favourites" button	Movie added to Favourites with an alert displayed to the user indicating it	<b>PASS</b>
16.	Adding TV Show to Watchlist	User click on the "Add to Watchlist" button	TV Show added to Watchlist with an alert displayed to the user indicating it success	<b>PASS</b>
17.	Navigating to "Browse" page	User will click on the "Browse" tab at the bottom of the screen	User will be taken to the browse page full of movie genres	<b>PASS</b>
18.	Navigating to one of the genres	User clicked on one of the genres	A list of movies with the related genre will be displayed	<b>PASS</b>
19.	Search for movie	Search query "paskal"	A result of the movie related to title paskal displayed to the user	<b>PASS</b>
20.	Opening a movie details page from the search page	User will click on one of the movies in search result	User will be taken to the movie details page with an information about that movie	<b>PASS</b>
21.	Adding Movies to Favourites	User click on the "Add to Favourites" button	Movie added to Favourites with an alert displayed to the user indicating it success	<b>PASS</b>

22.	Adding Movies to Watchlist	User click on the “Add to Watchlist” button	Movie added to Watchlist with an alert displayed to the user indicating it success	PASS
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#### 4.2.4 User Acceptance Testing

Once our test users have tasted the app, we handed them a questionnaire to see how they felt about the Flix Fusion mobile app. We asked them several questions and took their answers into consideration.



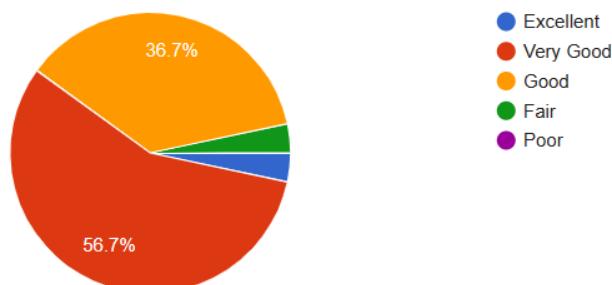
**Figure 4.2.4.1** Overall User Interface Pie Chart Result

For this question, we have ask the user on how does the overall interface of Flix Fusion and we have received an overall positive feedback with the most answer of Good with the percentage of 46.7% and Very Good at 40%. This indicates us that the interface of Flix Fusion is acceptable by most users.

2. How would you rate the overall user friendliness and accessibility of the interface and design of Flix Fusion?

[Copy](#)

30 responses



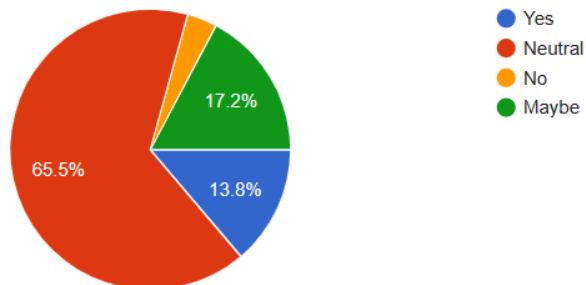
**Figure 4.2.4.2** Interface Friendliness and Accessibility Pie Chart Result

For this question, we focused more on the interface of Flix Fusion as we can see that most people have a great time with the interface in term of friendliness and accessibility. Almost a huge percentage of 56.7% agree that the interface is very good in term of user friendliness and accessibility.

3. Did you find the content recommendations provided by Flix Fusion relevant to your interests?

[Copy](#)

29 responses



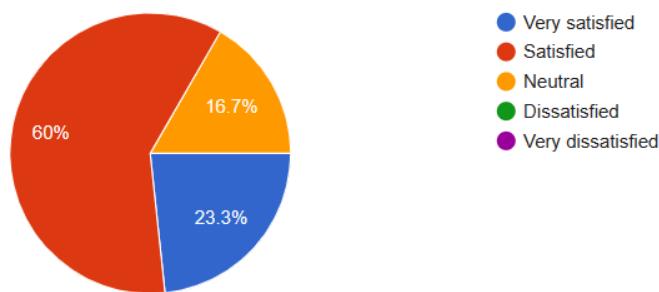
**Figure 4.2.4.3** Content Recommendation Pie Chart Result

As we all aware that Flix Fusion doesn't need an account to use, the recommendation is not personalised due to it. Some user find that the recommendation are not interested to them. Almost a lot of people feels that the recommendation are natural.

4. How satisfied are you with the add to Favorites/Watchlist functionality of Flix Fusion?

[Copy](#)

30 responses



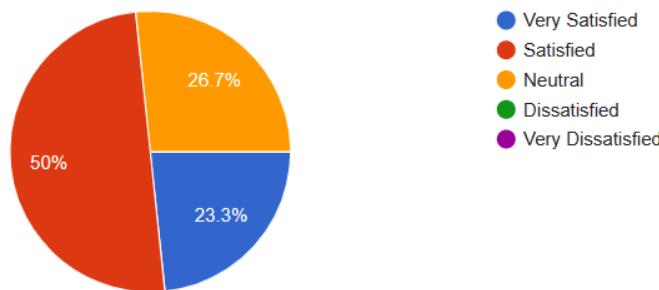
**Figure 4.2.4.4** Add to Watchlist and Favourites Features Pie Chart Result

This question primarily focuses on the functionalities of Flix Fusion, like the 'Add to Favorites' and 'Watchlist' buttons. From our test users, it's proven that a majority, 60%, are satisfied with the ability to add movies and TV shows to their Favorites and Watchlist as they will be able to revisit it later in the future.

5. How satisfied are you with the page section for Favorites and Watchlist?

[Copy](#)

30 responses



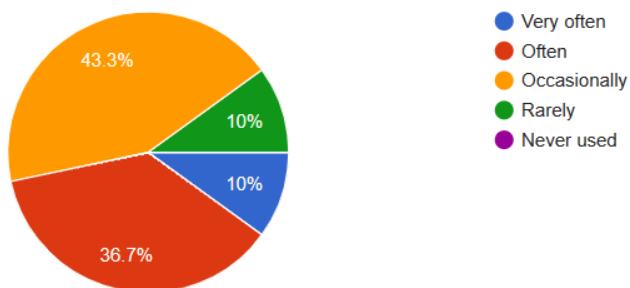
**Figure 4.2.4.5** Page Section for Favourites and Watchlist Satisfaction

This question is to know whether they are satisfied with the page for Favorites and Watchlist since it displays both Movies and TV Shows without any filtration system. And as we could see half of the result, 50% are Satisfied with the page and none of them feel dissatisfied with it.

6. How often do you use the personalized Watchlist and Favorites feature on Flix Fusion to save movies and TV shows for later viewing?

[Copy](#)

30 responses



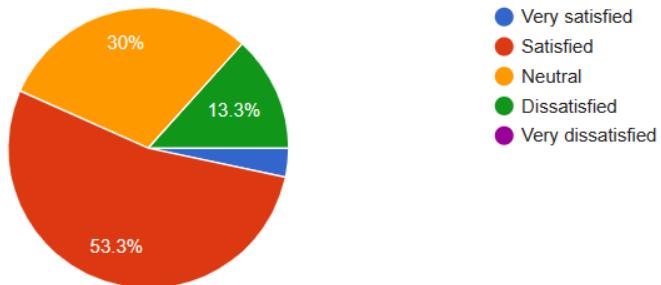
**Figure 4.2.4.6** Usage Frequency of Adding Titles to Favourites/Watchlist

This question was asked to the user how often they would use the adding titles to Favourites and Watchlist, as to our surprised majority of them use it quite Occasionally and Often. This has proven that the features of adding titles to Favourites and Watchlist are useful to our users.

7. How satisfied are you with the search functionality of Flix Fusion in helping you discover new movies and TV shows?

[Copy](#)

30 responses



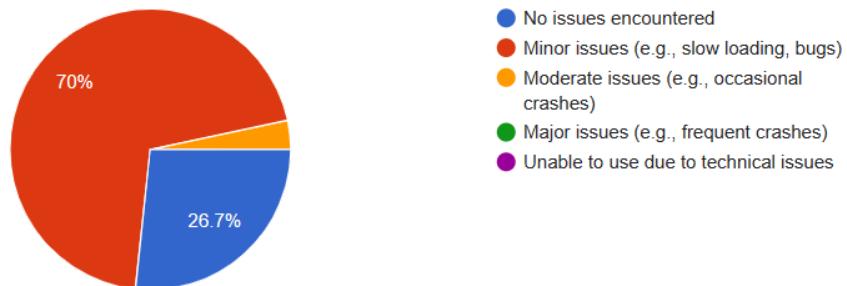
**Figure 4.2.4.7** Search Functionalities Satisfaction

This question was asked to know how does the search function performed in recommended the user with new titles, and most of them find it Satisfied with it. This can be proven with a high percentage of 53.3% that took up a large number of the result.

8. Did you encounter any technical issues or bugs while using the Flix Fusion app?

[Copy](#)

30 responses



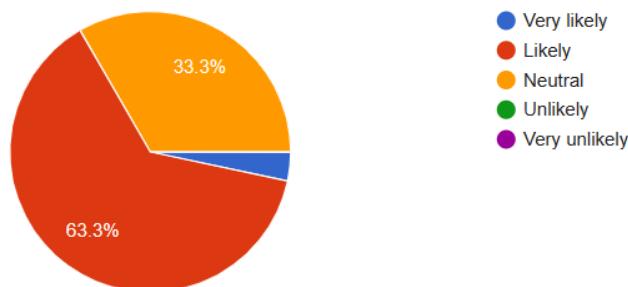
**Figure 4.2.4.8** Technical Issue Encountered by User

For this result, we would like to know if the user had any technical issue with the app itself and its unfortunate that most of them found out that the app sometimes has bugs and slowdowns in loading the content or displaying search result.

9. How likely are you to recommend Flix Fusion to a friend or colleague interested in discovering new movies and TV shows?

[Copy](#)

30 responses

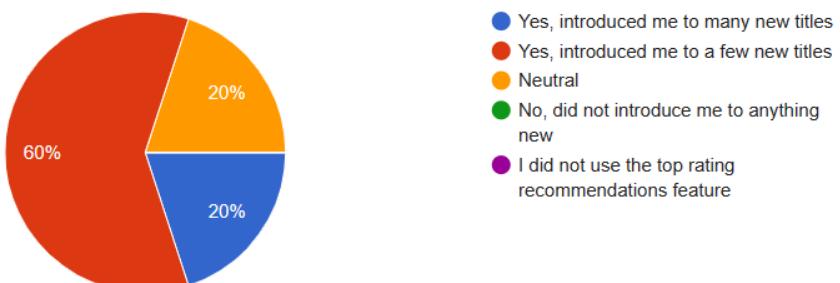


**Figure 4.2.4.9** Recommendation to Friends and Colleague

For this question, we aimed to understand if our test users found the app helpful, satisfied with it, and if they intended to recommend Flix Fusion to others. The feedback indicated that a majority of them are “Likely” to recommend it. This demonstrates that Flix Fusion’s usefulness lies in helping users discover new titles.

10. Did the top movies or TV shows recommendations from Flix Fusion introduce you to movies or TV shows you were not aware of before using the app? Copy

30 responses

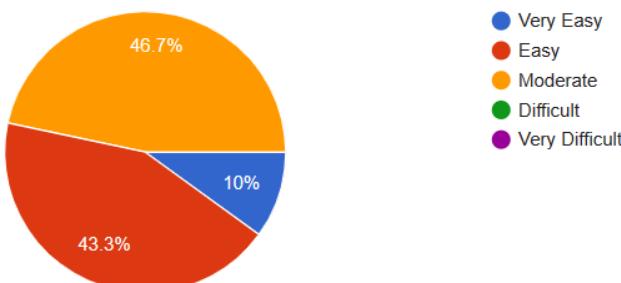


**Figure 4.2.4.10** New Content Introduction for Top Rated Section

For the tenth question, we're curious if the 'Top Rated' movies or TV shows helped our test user discover new titles. Turns out, quite a few users did find some new stuff from it. Most have said it recommended a few titles they'd never heard of before. This proven that the section is useful to most users who wanted to find new shows they would like to watch during their free time.

11. Compared to using a web browser (such as Chrome) how easy it is to search for movie or TV shows details in Flix Fusion? Copy

30 responses



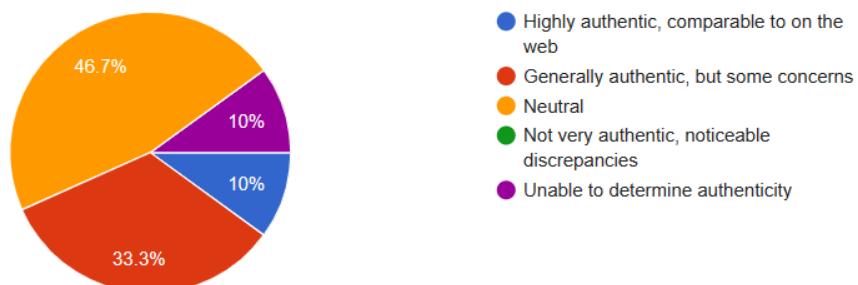
**Figure 4.2.4.11** Easiness of Searching for Information

This question would determine overall usefulness of Flix Fusion as we can see that if the user was able to find movie info from the Flix Fusion is easier than using the web. We found out that most of them chooses Moderate difficulty which indicates us that most of our test user are just a casual viewer and not a movie enthusiast that would do a research for a movie or TV show.

12. How would you rate the authenticity and reliability of the information provided in the Flix Fusion app compared to widely recognized sources like Wikipedia?

[Copy](#)

30 responses



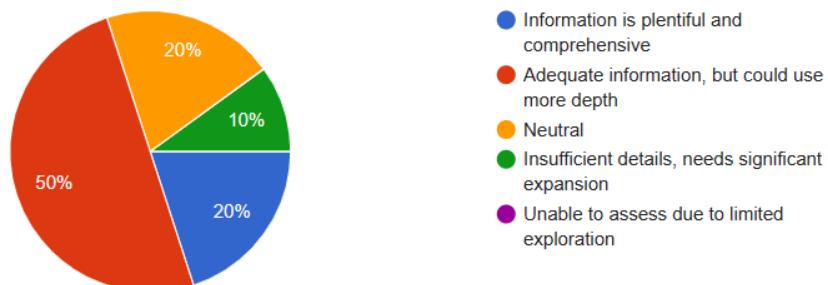
**Figure 4.2.4.12** Information Authenticity and Reliability

This question is to determined if the users was able to decide if the information provided in Flix Fusion are reliable or not. Most of them choose neutral due to they are just a casual viewer and user.

13. Additionally, do you feel the details offered in the app are abundant, or do you think there's a need for more comprehensive information?

[Copy](#)

30 responses



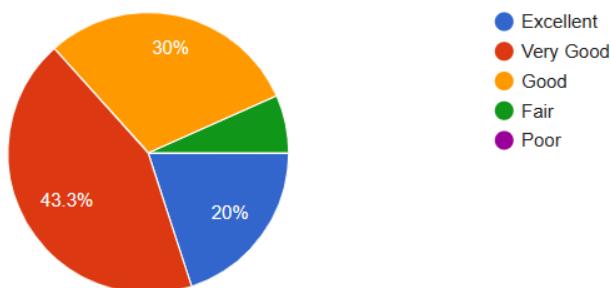
**Figure 4.2.4.13** Number of Details

This question is to know if the information given by Flix Fusion has been considered enough or not, and most of them chooses the infomration asre enough but might need more.

14. How would you rate the overall experience of using Flix Fusion for discovering movies and TV shows?

 Copy

30 responses



**Figure 4.2.4.14** Overall Experience of Flix Fusion

For our last question, we would like to know how does the overall experience of Flix Fusion and most of them chooses Very Good with the percentage of 43.3%.

## 4.3 Discussion

The feedback we got for Flix Fusion tells us a lot about what users like and what could be better. People seem to really like the interface, with nearly half think it's "Good" and 40% say it's "Very Good." Most users find it easy to use and get around, but some wish there were more personalized suggestions based on their interests, especially for users without an account.

The "Add to Favourites" and 'Watchlist' features are a hit, with 60% of users happy about how they help organize things. Half of them like how the Favourites and Watchlist pages are being set up, saying it works well.

People use the "Add to Favourites" and "Add to Watchlist" features quite a bit frequent, and most folks find the search tool helpful for discovering new titles.

But there are some technical issues, bugs popping up now and then, and sometimes the app takes a while to load. Even with that, most users would still recommend Flix Fusion because it's great for finding new stuff to watch.

The "Top Rated" section is cool for finding new titles, but it's a bit tricky to find specific movie info. Seems like the platform might be more interested toward casual viewers than serious movie researchers.

Overall, people generally feel good about the experience with an almost half really like it. But there are things we can work on, like improving personalized suggestions, fixing technical issues, and adding more detailed content to match what users want.

## 4.4 Conclusion

The feedback collected from users regarding Flix Fusion offers valuable insights into both its strengths and weakness areas for improvements. The interface, praised by nearly half of the users as "Good" and 40% as "Very Good," underscores its appeal and navigational ease. However, there's a notable desire for more personalized recommendations, especially among users without accounts, which is an area that could be improved.

The success of features like "Add to Favourites" and "Watchlist," are highly appreciated by 60% of users for their organizational usefulness, reflecting positively on Flix Fusion's functionality. Additionally, the layout of the Favourites and Watchlist pages received encouragement from half of the users, highlighting the effective design.

The frequent prioritization of "Add to Favourites" and "Watchlist" features, alongside users' reliance on the search tool for discovering new titles, amplifies their practicality within the platform. Despite these strengths, the occurrence of technical issues, occasional bugs, and slow loading times remain areas demanding some attention. Nevertheless, the majority of users express an intention to recommend Flix Fusion due to its ability to facilitate the discovery of new content.

While the "Top Rated" section proves beneficial in introducing users to fresh new titles, challenges arise in finding specific movie information, indicating a potential focus on focusing more to casual viewers than dedicated researchers.

Overall, the user experience holds the positive sentiments, with almost half expressing genuine satisfaction. However, it also serves as a roadmap for improvement, indicating the need to add personalized suggestions and fix technical issues. This user-centric approach aims to further enhance Flix Fusion, striving to better fulfil user expectations and enhancing their overall experience.

# **CHAPTER 5**

## **CONCLUSION**

### **5.1 Introduction**

In this last chapter, we're taking a look back at how we managed to developed the mobile app Flix Fusion Movies and TV Shows Discovery Hub. We'll discuss about what we discover, the obstacles and difficulties faced, the goals we managed to achieve, and everything in between. Here, we're summing up our whole journey, showcasing what we aimed for, what we managed to do, and the lessons we've picked up along the way during this project development.

### **5.2 Project Achievement**

As we can observe from the user acceptance quarantine, we believe that most of our project objectives has been achieved. All the objective from interface design until the features has been greatly accepted by users. Majority of the question have a positive answer and almost all of them agree that the overall experience of Flix Fusion has been such a great experience according to them.

### **5.3 Project Constraint and Limitation**

Throughout our project's development and research journey, we encountered a list of constraints and obstacles. Some of these challenges proved to be invaluable lessons in navigating such projects, while others were more manageable. For instance, when sourcing case study examples, we grappled with limited accessibility, as some website required user accounts for full access.

Another significant challenge during in finding willing test users for app trials. Many potential candidates were tied up with their own commitments, causing a postponed in our testing process. Thankfully, thanks to the unwavering support from our friends and family, we eventually found a test user towards the project's conclusion.

Operating system discrepancies among our test users posed yet another obstacle. Compatibility issues arise with iOS devices, as Ionic apps aren't inherently compatible. This was compounded by our lack of the requisite hardware to compile code for iOS apps. Furthermore, iOS's strictly security policies limited our ability to "side load" apps, creating additional barriers.

However, through perseverance, we devised an on-site testing approach, enabling users to directly test the app from their laptops and share their experiences. Despite these obstacles, we successfully overcome them. The journey of developing Flix Fusion has been a tremendous learning experience, and we aspire to continue refining and enhancing Flix Fusion in the future based on these insights.

## 5.4 Recommendation and Future Work

During the development phase of Flix Fusion, we placed a high priority on incorporating user feedback to shape future enhancements for an improved user experience. Addressing severe key issues highlighted by our users, we've set our sights on refining the search function, which currently suffers from slow loading and limited capability, restricting searches solely to movies.

Furthermore, understanding the users desire for more personalized recommendations, we are considering implementing an account system, offering login or registration options. This system aims to tailor suggestions more closely to individual preferences, addressing concerns voiced by users who felt their recommendations lacked relevancy. These planned improvements are part of our commitment to evolving Flix Fusion based on invaluable user insights, ensuring a more refined and tailored experience for all our users

## 5.5 Conclusion

In conclusion, the journey of developing our project Flix Fusion Movies and TV Shows Discovery Hub, has been a massive learning experience. We have encountered and navigated through various challenges, each contributing to our understanding of project development. From facing with constraints and limitations to overcoming obstacles in finding case study examples and test users, every obstacle added depth to our learning process and future understanding. Lastly, this journey has not only strengthened our project but has also enriched our understanding of perseverance, problem-solving, and the collaborative efforts essential in bringing an idea to a end product.

## Appendix A – Questionnaire Sample

- Data Requirement Gathering Questionnaire

### Flix Fusion Questionnaire

Welcome to the Flix Fusion Questionnaire! Your input is essential in helping us create a fantastic movie and TV show discovery app. Please take a moment to answer the following questions to the best of your ability. Your feedback will be invaluable in shaping the future of the Flix Fusion app.

**Important Note:** This questionnaire is designed to gather your opinions and preferences before you have a chance to test the app. Your responses will guide us in making improvements to ensure the app meets your expectations.

We appreciate your participation and look forward to enhancing your movie and TV show discovery journey with Flix Fusion. Thank you for being a part of our community and helping us make Flix Fusion the best it can be!

kl2107009901@student.kuptm.edu.my [Switch account](#)



✉ Not shared

\* Indicates required question

Your **full name** (Required) \*

Your answer

Your **email** (Optional)

Your answer

Your **phone number** (Optional)

Your answer

Which age group do you belong to? (Required) \*

- 15 years old and below
- 15 - 21 years old
- 21 - 35 years old
- 35 - 41 years old
- 41 years old and above

What is your gender? (Required) \*

- Male
- Female
- Prefer not to say

Which **mobile** operating system did you use? \*

- Android
- iOS
- Both

1. How often do you use a web browser or search engine to look up information about movies or TV shows? \*

- Multiple times a day
- Daily
- A few times a week
- Rarely
- Never

2. How often do you watch movies or TV shows? \*

- Daily
- Several times a week
- Once a week
- Rarely or never

3. What device do you primarily use for streaming movies and TV shows? (Select all that apply)

- Smartphone
- Tablet
- Computer
- Smart TV
- Other: \_\_\_\_\_

4. Which streaming platforms do you currently use for watching movies or TV shows? (Select all that apply) \*

- Netflix
- Amazon Prime Video
- Disney+
- Astro
- Viu
- Other: \_\_\_\_\_

5. What genres of movies or TV shows do you enjoy the most? (Select all that apply) \*

- Action
- Comedy
- Drama
- Sci-Fi
- Fantasy
- Horror
- Romance
- Animation
- Documentary
- Other: \_\_\_\_\_

6. How do you typically decide what to watch? (Select all that apply) \*

- Recommendations from friends or family
- Online reviews and ratings
- Social media recommendation
- Random browsing
- Other: \_\_\_\_\_

7. What features are important to you in a movie and TV show discovery app? \*  
(Select all that apply)

- Top movies and TV shows recommendations
- User reviews and ratings
- Integration with streaming platforms
- Detailed information about movies and TV shows
- Watchlist and favorites management
- Other: \_\_\_\_\_

8. How important is it for you to have access to accurate and verified information \* about certain movies and TV shows?

- Extremely important
- Very important
- Moderately important
- Slightly important
- Not important

9. How important is it for the app to provide information about cast and crew, and other information? \*

1	2	3	4	5	
Very Important	<input type="radio"/> Not important				

10. Based on your experience, how would you rate the ease of searching for movies or TV shows information online? \*

*For example through Google searches*

1	2	3	4	5	
Very Easy	<input type="radio"/> Very Difficult				

11. What challenges have you faced when trying to find reliable information about movies or TV shows online? \*

Type "none" if there's none

Your answer

---

12. How user-friendly do you expect the Flix Fusion app's interface to be? \*

<b>1</b>	2	3	4	5	
Very user-friendly	<input type="radio"/> Very complex				

13. Do you prefer Flix Fusion app interface to be dark theme or light theme? \*

- I prefer dark theme
- I prefer light theme
- I prefer both theme

14. Would you like Flix Fusion app to offer in-app purchases or premium features? \*

- Yes
- No
- Maybe

These questionnaire will be given to our test users before they test the application so that we could add features that what the users needed.

- User Acceptance Questionnaire

## Flix Fusion Outcome Survey

Thank you so much for dedicating your valuable time to test our Final Year Project application, Flix Fusion: Movies and TV Shows Discovery Hub! We trust that your testing experience has been enjoyable and rewarding, whether you've explored the app on-site or through the downloadable APK. Your commitment to completing the test flight of our application is truly appreciated.

To make Flix Fusion even better in the future, we kindly ask for a few minutes of your time to complete this outcome survey. Your insights will play a crucial role in shaping the future improvements of our application. Thank you for being an essential part of this journey, and we look forward to hearing your thoughts!

kl2107009901@student.kuptm.edu.my [Switch account](#)



Not shared

1. How would you rate the overall user interface and design of Flix Fusion?

- Excellent
- Very Good
- Good
- Fair
- Poor

2. How would you rate the overall user friendliness and accessibility of the interface and design of Flix Fusion?

- Excellent
- Very Good
- Good
- Fair
- Poor

3. Did you find the content recommendations provided by Flix Fusion relevant to your interests?

- Yes
- Neutral
- No
- Maybe

4. How satisfied are you with the add to Favorites/Watchlist functionality of Flix Fusion?

- Very satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very dissatisfied

5. How satisfied are you with the page section for Favorites and Watchlist?

- Very Satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very Dissatisfied

6. How often do you use the personalized Watchlist and Favorites feature on Flix Fusion to save movies and TV shows for later viewing?

- Very often
- Often
- Occasionally
- Rarely
- Never used

7. How satisfied are you with the search functionality of Flix Fusion in helping you discover new movies and TV shows?

- Very satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very dissatisfied

8. Did you encounter any technical issues or bugs while using the Flix Fusion app?

- No issues encountered
- Minor issues (e.g., slow loading, bugs)
- Moderate issues (e.g., occasional crashes)
- Major issues (e.g., frequent crashes)
- Unable to use due to technical issues

9. How likely are you to recommend Flix Fusion to a friend or colleague interested in discovering new movies and TV shows?

- Very likely
- Likely
- Neutral
- Unlikely
- Very unlikely

10. Did the top movies or TV shows recommendations from Flix Fusion introduce you to movies or TV shows you were not aware of before using the app?

- Yes, introduced me to many new titles
- Yes, introduced me to a few new titles
- Neutral
- No, did not introduce me to anything new
- I did not use the top rating recommendations feature

11. Compared to using a web browser (such as Chrome) how easy it is to search for movie or TV shows details in Flix Fusion?

- Very Easy
- Easy
- Moderate
- Difficult
- Very Difficult

12. How would you rate the authenticity and reliability of the information provided in the Flix Fusion app compared to widely recognized sources like Wikipedia?

- Highly authentic, comparable to on the web
- Generally authentic, but some concerns
- Neutral
- Not very authentic, noticeable discrepancies
- Unable to determine authenticity

13. Additionally, do you feel the details offered in the app are abundant, or do you think there's a need for more comprehensive information?

- Information is plentiful and comprehensive
- Adequate information, but could use more depth
- Neutral
- Insufficient details, needs significant expansion
- Unable to assess due to limited exploration

14. How would you rate the overall experience of using Flix Fusion for discovering movies and TV shows?

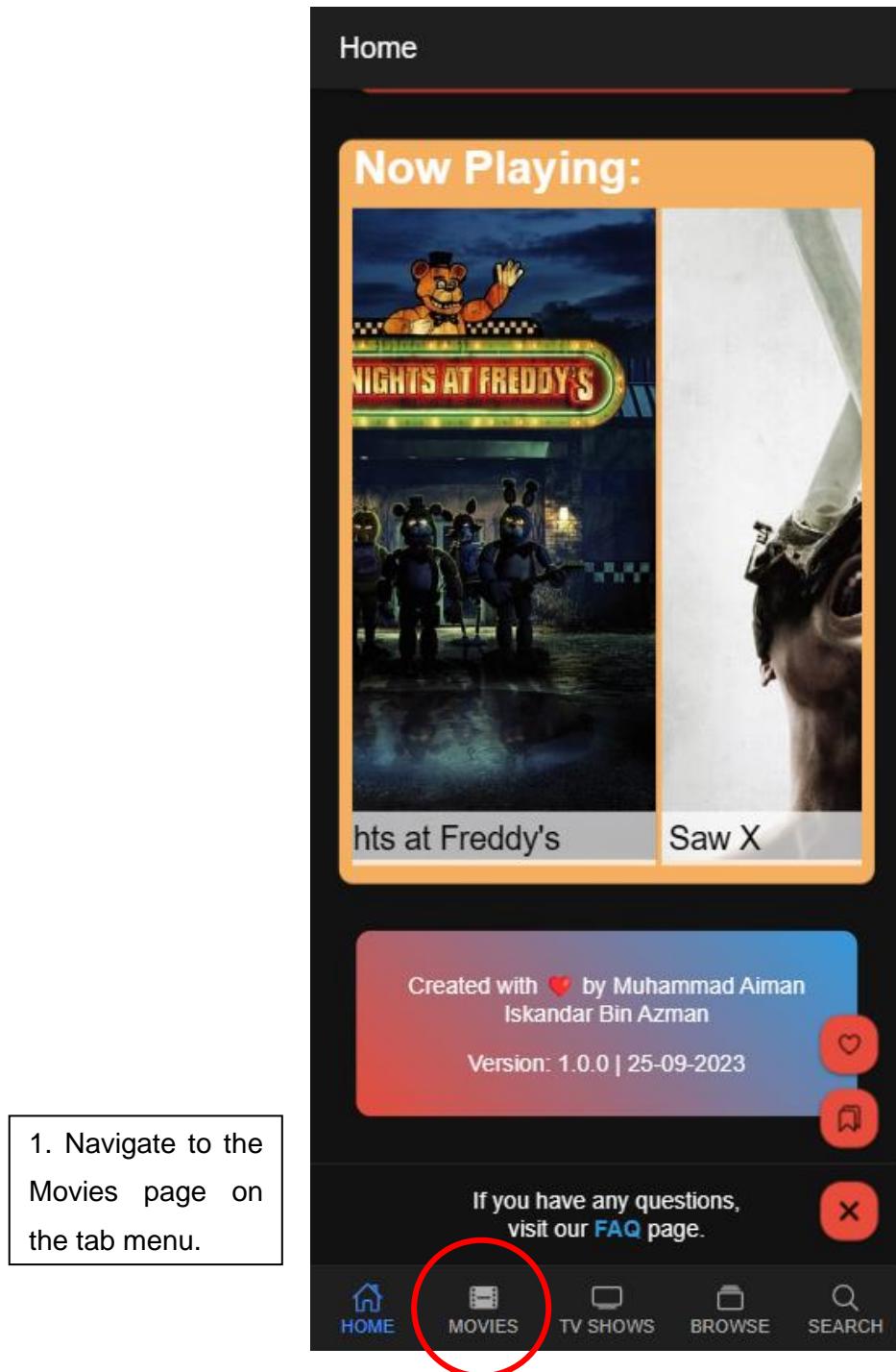
- Excellent
- Very Good
- Good
- Fair
- Poor

These outcome survey or user acceptance questionnaire will be given to our test users after they have confirmed testing the app. These questionnaire is to ensure that the app met the user expectation on features and functionalities.

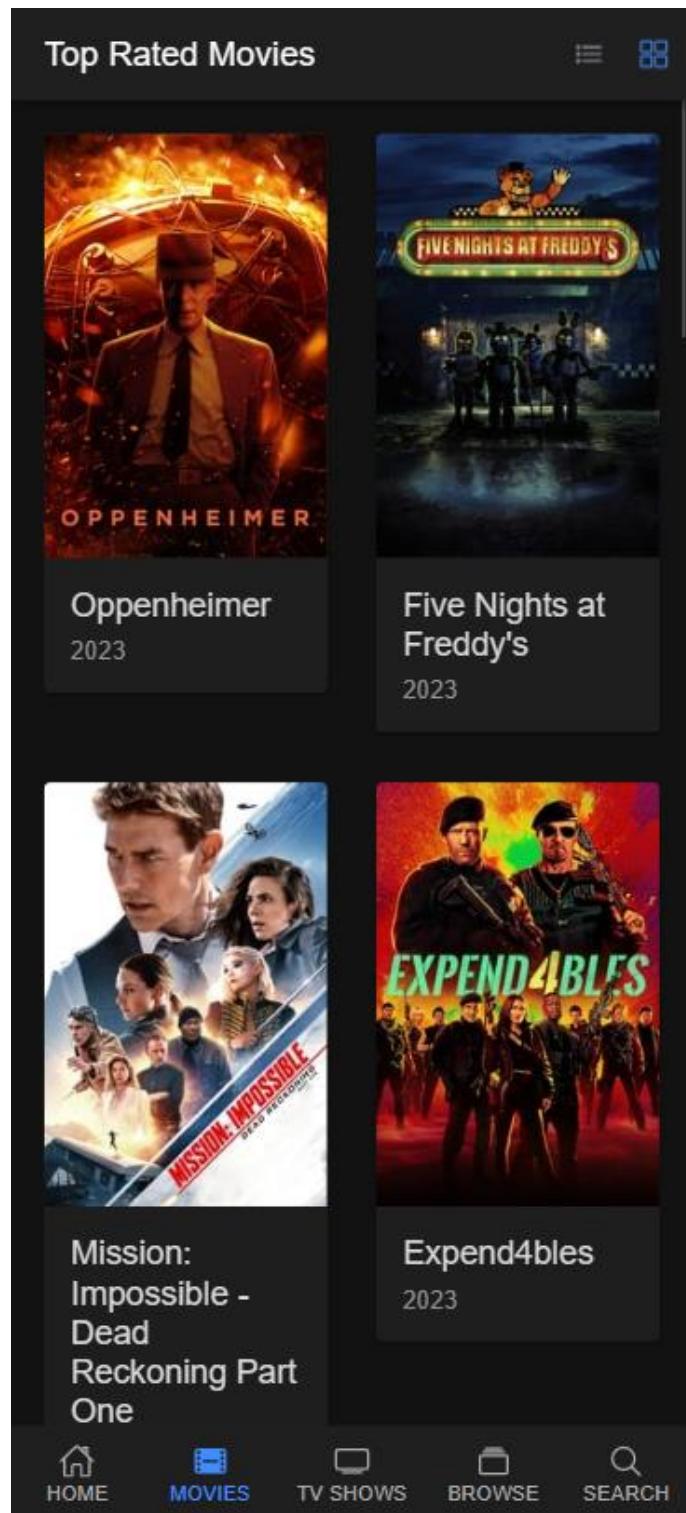
## Appendix B – User Manual

Here are some of the user manuals of what the user could do during their journey in Flix Fusion.

- How to add Movies to Favourites or Watchlist



2. Select any movies.



i. You could also change the view style.

← Five Nights at Freddy's

# Five Nights at Freddy's

Can you survive five nights?

Horror Mystery

**ADD TO FAVORITES** **ADD TO WATCHLIST**

Copy the URLs shown to watch movie:  
<https://vidsrc.to/embed/movie/507089>

**Summary**

Recently fired and desperate for work, a troubled young man named Mike agrees to take a position as a night security guard at an abandoned theme restaurant: Freddy Fazbear's Pizzeria. But he soon discovers that nothing at Freddy's is what it seems.

**Cast:**

 Josh Hutcherson  
Mike

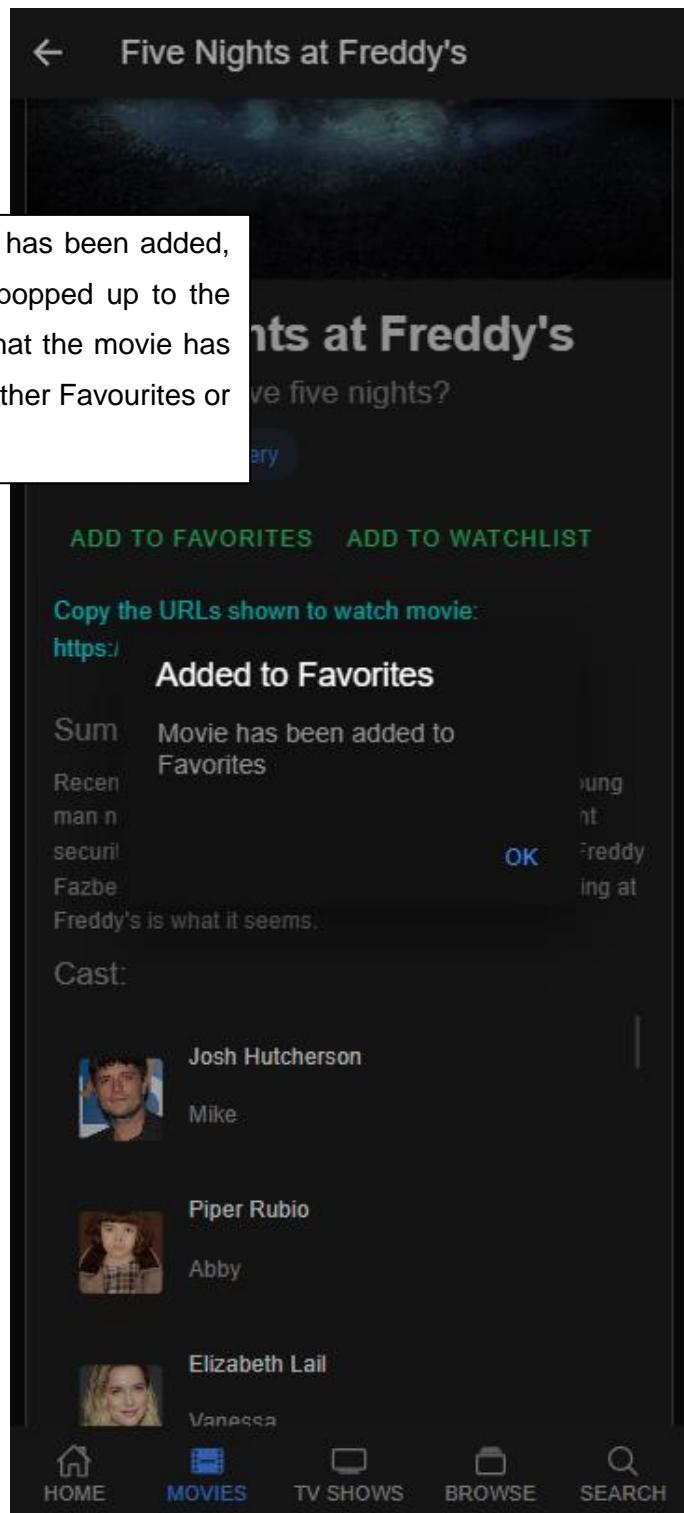
 Piper Rubio  
Abby

 Elizabeth Lail  
Vanessa

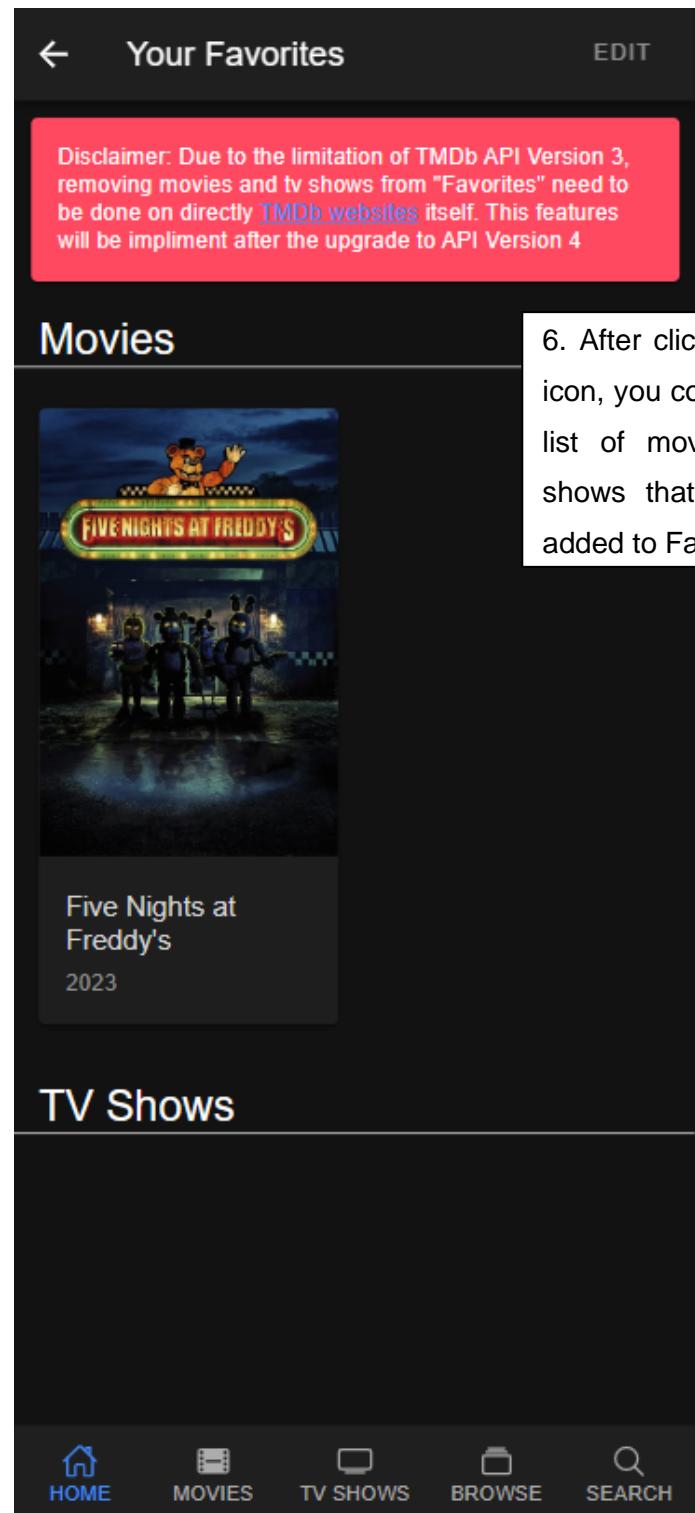
  
HOME MOVIES TV SHOWS BROWSE SEARCH

3. Click on either add to Favourites or add to Watchlist.

4. After a movie has been added, an alert will be popped up to the user indicating that the movie has been added to either Favourites or Watchlist.



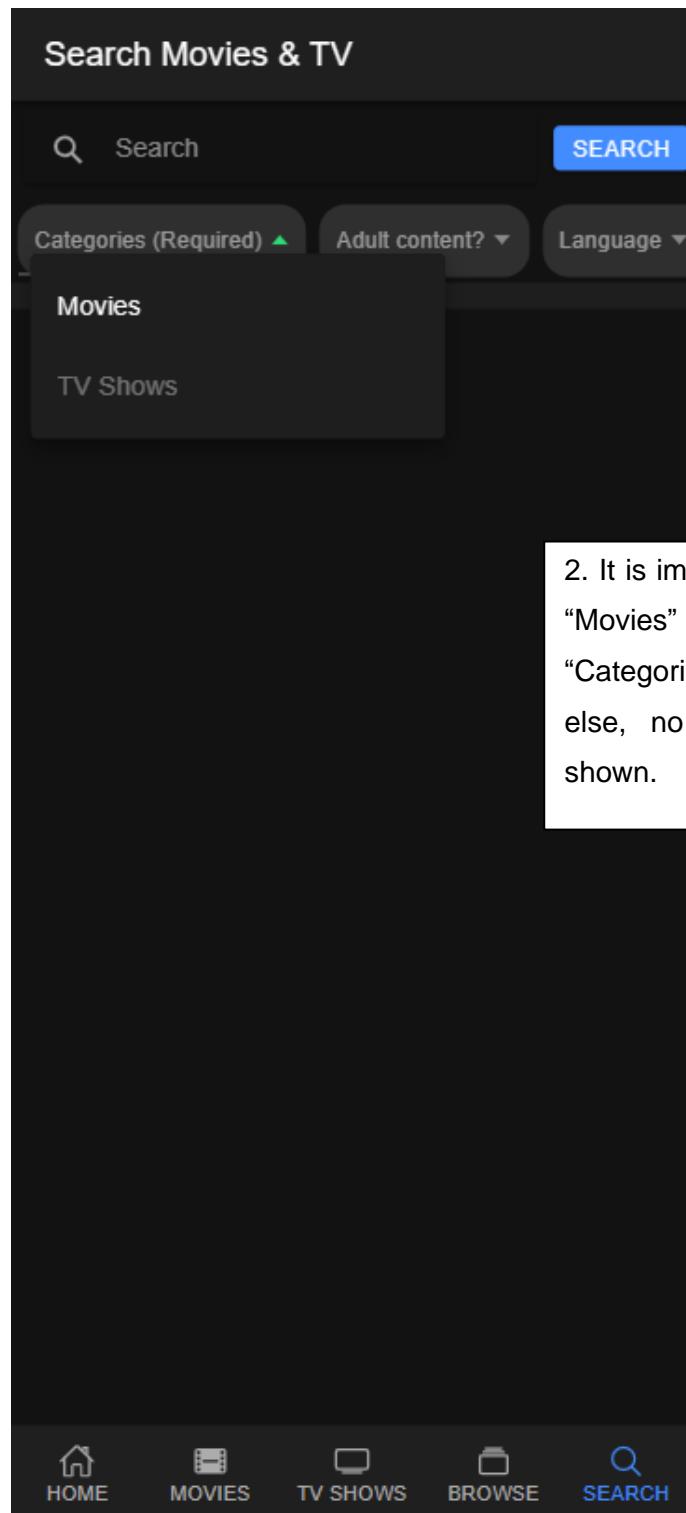




6. After clicking on the icon, you could find the list of movies or TV shows that has been added to Favourites.

- How to Search for Movies





2. It is important to select “Movies” on the “Categories” filters or else, no result will be shown.

Search Movies & TV

Pokemon

Movies ▾ Adult content? ▾ Language ▾ R

	Pokémon the Movie: I Choose You!
	Pokémon Detective Pikachu
	Pokémon the Movie: Mewtwo Strikes Back - Evolution
	Pokémon the Movie: Secrets of the Jungle
	Pokémon the Movie: Hoopa and the Clash of Ages
	Pokémon the Movie 2000
	Pokémon the Movie: Genesect and the Legend Awakened
	Pokémon: The Rise of Darkrai
	Pokémon the Movie: The Power of Us
	Pokémon Ranger and the Temple of the Sea
	Pokémon 4Ever
	Pokémon the Movie: Volcanion and the Mechanical Marvel

HOME MOVIES TV SHOWS BROWSE SEARCH

3. Input any search query and click the “Search” button. A result will them be displayed.

More Tutorials can be Found here on YouTube URL:

[https://www.youtube.com/playlist?list=PLfk7mdEmqndPpxmd9eoIT6vBHqA1KT\\_3X](https://www.youtube.com/playlist?list=PLfk7mdEmqndPpxmd9eoIT6vBHqA1KT_3X)

## **Appendix C – Related Links**

### **GitHub Repository Links**

<https://github.com/aimaniskndar/Flix-Fusion-Ionic-App>

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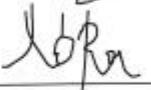
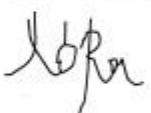
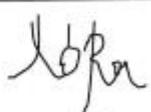
# **LOG BOOK**

STUDENT'S NAME : MUHAMMAD AIMAN ISKANDAR BIN AZMAN

ID NO. : AM2107009901

SUPERVISOR : PN. NORALIZA BINTI AZIZAN

PROJECT TITLE : FLIX FUSION: MOVIE & TV SHOW DISCOVERY HUB

Week and Date		Agenda	Next Agenda	Signature (Supervisor / Coordinator)
1	08/08/23	Chapter 1 - Preview Seminar Brainstorming, Introduction to the course and Title selection	Finish Chapter 1	
2	15/08/23	Meet supervisor to confirm project title	Proposal writing	
3	22/08/23	Proposal writing workshop	Proposal submitting	
4	29/08/23	Submitting the proposal	Resolving issue with FYPMS	
5	05/09/23	Resolving issue with FYPMS	Finishing chapter 1 & attending lecturer	
6	12/09/23	attending lecturer and finishing chapter 1	continuing chapter 1 and starting chapter 2	
7	19/09/23	starting chapter 2	Project continuing and inspection	
8	26/09/23	Project continuation and inspection	Supervisor inspection of chapter 2 progress	

9	3/10/23	Supervisor inspection of chapter 2	Finishing chapter 2 & 3	
10	10/10/23	Continuing finishing chapter 2 & 3	Meeting lecturer for inspection	
11	17/10/23	Meeting lecturer for inspection	Meeting lecturer for inspection	
12	24/10/23	Presenting project progress (movies, tv shows page)	Presenting project to lecturer.	
13	31/10/23	Finishing rest of the page and presenting project.	Last presentation to lecturer	
14		Presenting fully functional system and apps	Presentation day	