PROMINENT BILLING

A PROJECT REPORT

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ABSTRACT

An online subscription software for subscribing to over-the-top (OTT) platforms describes a web-based application designed to enable users to subscribe to various OTT platforms from a single platform. The software would provide users with an easy-to-use interface that allows them to compare different OTT platforms based on factors such as price, content availability, and streaming quality. The platform would provide users with a single payment gateway to manage their subscriptions to multiple platforms, making it easier for them to manage their streaming subscriptions. The software would also provide users with recommendations based on their viewing preferences and usage patterns, enhancing their overall streaming experience. The online subscription software would provide a seamless and convenient solution for users to access their favorite content across multiple OTT platforms.

CHAPTER-1

INTRODUCTION

Over-the-top (OTT) platforms have transformed the entertainment industry, providing users with unprecedented access to a wide variety of movies, TV shows, and documentaries that can be streamed on-demand. However, with the proliferation of these platforms, users face the challenge of managing multiple subscriptions, tracking billing cycles, and keeping track of content availability across various platforms. In this project report, we will explore the challenges of subscribing to multiple OTT platforms and propose an online subscription software as a solution to these challenges.

Over-the-top (OTT) platforms have revolutionized the way we consume video content. These platforms have provided consumers with a new way of accessing and watching TV shows, movies, and other types of video content. OTT platforms are internet-based, meaning that users can access them from any device with an internet connection, such as smartphones, tablets, and smart TVs. This has made it possible for users to watch their favorite shows and movies on the go or from the comfort of their own homes.

OTT platforms have become increasingly popular in recent years, with more and more users cutting the cord on traditional cable and satellite TV. This shift is due to a variety of factors, including the increasing availability of high-speed internet, the rise of smartphones and other internet-connected devices, and the growing number of platforms offering exclusive content.

One of the primary advantages of OTT platforms is the convenience they offer. Unlike traditional TV, which requires users to tune in at specific times to watch their favorite shows, OTT platforms allow users to watch on-demand. This means that users can watch their favorite shows and movies at their own pace, pausing and rewinding as needed. Additionally, OTT platforms often offer a larger selection of content than traditional TV, with many platforms offering a vast library of TV shows and movies.

Overall, OTT platforms have revolutionized the way we consume video content, offering users convenience, flexibility, and access to a vast selection of TV shows and movies. As the number of OTT platforms continues to grow, it is likely that we will see even more innovations and changes in the way we watch and access video content.

1.1 PROBLEM STATEMENT

The problem statement for subscription software is the current difficulty in managing multiple subscriptions across various OTT platforms. With the rise in popularity of OTT platforms, users often subscribe to multiple platforms to access their favorite content. However, managing and keeping track of multiple subscriptions can become a hassle, leading to missed payments, subscription overlaps, and ultimately a poor user experience.

Existing subscription software also has several issues, such as limited platform support, lack of personalization, and insufficient payment and invoice management features. Users need a subscription software solution that can efficiently manage their subscriptions across various OTT platforms, provide personalized recommendations based on their viewing habits, and offer reliable payment and invoice management features to streamline the subscription management process.

Thus, the problem statement for subscription software is to develop a comprehensive subscription software solution that can effectively manage subscriptions across multiple OTT platforms, provide personalized recommendations, and offer efficient payment and invoice management features to enhance the user experience.

1.2 OBJECTIVES

The system objectives for Prominent Billing are as follows:

- Efficient subscription management: The subscription software should allow users to manage their subscriptions across multiple OTT platforms in one place. It should provide a dashboard where users can see all their subscribed services, manage subscriptions, and update their payment details.

- Personalized recommendations: The subscription software should provide personalized content recommendations based on the user's viewing habits and interests. It should have an intelligent algorithm that suggests relevant content to the user, making the user experience more engaging.

- Seamless payment management: The subscription software should have an integrated payment management system that enables users to make payments securely and without hassle. It should have features such as automatic payment reminders, payment scheduling, and payment history tracking.

- Efficient invoice management: The subscription software should have an integrated invoice management system that generates and sends invoices to users for their subscribed services. It should have features such as invoice tracking, payment confirmation, and invoice history tracking.

- User-friendly interface: The subscription software should have a user-friendly interface that is easy to navigate, visually appealing, and intuitive. It should be accessible on various devices, including desktops, laptops, smartphones, and tablets.

- Integration with multiple OTT platforms: The subscription software should integrate with multiple OTT platforms, allowing users to manage their subscriptions across various services. It should have support for popular OTT platforms, including Netflix, Hulu, Amazon Prime Video, and Disney+.

1.3 Challenges of Subscribing to Multiple OTT Platforms

Managing Multiple Subscriptions

Managing multiple subscriptions can be a daunting task for users. Different OTT platforms offer different subscription plans, billing cycles, and payment methods. For example, Netflix offers three different subscription plans, each with its own set of features and prices. Amazon Prime Video offers both monthly and annual subscriptions, with different prices for each option. Hulu offers both ad-supported and ad-free plans, each with its own pricing structure. Disney+ offers a single subscription plan, but users may still find it challenging to manage multiple subscriptions across various platforms.

To manage multiple subscriptions, users must keep track of different billing cycles, payment methods, and subscription periods. Users must also remember to cancel subscriptions they no longer require, a task that can be challenging if they subscribe to multiple platforms.

Content Availability

Content availability is another challenge that users face when subscribing to multiple platforms. Not all content is available on all platforms, and users may have to subscribe to multiple platforms to access all the content they desire. For example,

Netflix offers a wide selection of original content that is exclusive to its platform. Amazon Prime Video offers exclusive content that can only be accessed by subscribing to Amazon Prime. Hulu offers a selection of content from various networks and studios, including Disney, NBC, and Fox. Disney+ offers exclusive content from Disney, Pixar, Marvel, Star Wars, and National Geographic.

To access all the content they desire, users must subscribe to multiple platforms. However, this can be an expensive proposition, with users having to pay separate fees for each platform.

Cost

The cost of subscribing to multiple platforms can also be a significant challenge for users. With different platforms offering different subscription plans and pricing structures, users may find it challenging to determine the most cost-effective option for accessing the content they desire. For example, subscribing to Netflix, Amazon Prime Video, Hulu, and Disney+ separately can be expensive, with users having to pay separate fees for each platform.

Complexity

Another challenge users face when subscribing to multiple platforms is the complexity of managing and comparing different platforms. With the proliferation of OTT platforms, users may find it challenging to navigate and compare different platforms, making the subscription process more complex. For example, different platforms may offer different features, user interfaces, and content recommendations, making it challenging for users to determine which platform is the best fit for their needs.

Personalization

Personalization is another challenge users face when subscribing to multiple platforms. With different platforms using different algorithms and data sources to generate content recommendations, users may find it challenging to receive personalized content recommendations across different platforms.

For example, Netflix uses a recommendation engine that considers a user's viewing history and ratings to generate personalized content recommendations. Amazon Prime Video uses a similar algorithm that considers a user's watch history, ratings, and searches to generate personalized content recommendations.

To address the challenges of managing multiple subscriptions across various platforms, an online subscription software can offer a comprehensive solution. The software enables users to manage their subscriptions, track billing cycles, and keep track of content availability across multiple platforms from a single platform. Additionally, the software can offer personalized content recommendations based on users' viewing preferences.

CHAPTER-2

EXISTING SYSTEM

2.1 INTRODUCTION

Subscription management tools are becoming increasingly popular as more people subscribe to multiple OTT platforms for their entertainment needs. These tools provide users with a centralized platform for managing their subscriptions, making it easier to keep track of payment schedules, cancel unwanted subscriptions, and stay on top of renewal reminders.

2.2 EXISTING SYSTEMS

There are several subscription management tools available on the market, each with its own set of features and benefits. Some of these tools are standalone apps or websites, while others are integrated into existing financial management software or banking apps.

For instance, some banks and financial management software offer subscription management tools as part of their services, allowing users to track their subscriptions and manage their payments alongside their other financial activities. Other subscription management tools are specifically designed for managing OTT platform subscriptions, providing users with a more focused and streamlined experience.

These tools typically offer features such as automated renewal reminders, cancellation options, and payment tracking. Some tools also provide users with insights into their subscription usage and spending habits, allowing them to make more informed decisions about their subscriptions.

However, like any software system, subscription management tools may also have their limitations and challenges. For instance, some tools may not be compatible with all OTT platforms, or may not provide users with access to all their subscription data. Moreover, some users may be reluctant to use these tools due to concerns about data privacy and security.

Despite these challenges, subscription management tools are likely to become increasingly important as more people subscribe to multiple OTT platforms. As such, it is important for developers to continue to innovate and improve these tools to provide users with the best possible experience.

2.3 LITERATURE SURVEY

Subscription management is one of the most crucial aspects of using OTT platforms. It involves managing multiple subscriptions for various OTT platforms, which can be quite overwhelming and confusing for users. Some of the common problems faced by users in subscription management for OTT platforms include:

Multiple payment methods and billing cycles: Each OTT platform may have its own payment method and billing cycle. For instance, some platforms may accept credit cards while others may accept only PayPal or other online payment systems. Similarly, billing cycles may vary from monthly to yearly, making it difficult for users to keep track of their subscription renewals.

Confusing cancellation process: Cancelling a subscription can be a confusing and frustrating process, especially when it involves multiple OTT platforms. Some platforms may make it difficult for users to cancel their subscriptions, requiring them to navigate through multiple pages and menus to find the cancellation option. Moreover, some platforms may continue to charge users even after they have cancelled their subscriptions, leading to disputes and chargebacks.

Renewal reminders: Users may forget to renew their subscriptions, leading to disruptions in their access to content. While some OTT platforms may send renewal reminders to users via email or notifications, others may not, making it difficult for users to keep track of their subscription renewals.

Limited payment options: Some users may not have access to certain payment methods, such as credit cards or online payment systems, making it difficult for them to subscribe to certain OTT platforms. This can be particularly problematic for users in regions where credit card penetration or online payment systems are not widely available.

Platform compatibility: Not all OTT platforms are compatible with all devices or operating systems. For instance, some platforms may only work on certain versions of iOS or Android, or may not work on smart TVs or gaming consoles. This can be frustrating for users who want to access their favorite content on multiple devices.

Limited availability of regional content: While many OTT platforms offer a wide range of content, some may not offer regional content, such as TV shows or movies that are popular in certain countries or regions. This can be disappointing for users who are looking for content that is specific to their region or culture.

To address these challenges, several companies have developed subscription management tools that help users manage their subscriptions for multiple OTT platforms. These tools typically offer a centralized dashboard that allows users to view all their subscriptions in one place, as well as features such as automatic renewal reminders and cancellation options.

Some of the popular subscription management tools include:

- Trim: Trim is a free subscription management tool that helps users cancel unwanted subscriptions, negotiate lower bills, and stay on top of their payments. Trim also offers a bill negotiation service that can help users save money on their monthly bills.

- Truebill: Truebill is another popular subscription management tool that helps users track their subscriptions, cancel unwanted subscriptions, and negotiate lower bills. Truebill also offers a budgeting feature that allows users to set spending limits for various categories.

- SubscriptMe: SubscriptMe is a subscription management app that allows users to track their subscriptions, receive renewal reminders, and manage their payments. SubscriptMe also offers a feature called "Subscription Analytics" that provides users with insights into their spending habits and subscription usage.

- Bobby: Bobby is a subscription management app that allows users to track their subscriptions, receive renewal reminders, and manage their payments. Bobby also offers a feature called "Smart Renewal" that automatically renews subscriptions for users, while also notifying them when their subscription prices increase.

2.4 USER FEEDBACK

As more people subscribe to multiple OTT platforms for their entertainment needs, managing these subscriptions can become a complex and challenging task. Here are some of the problems that users may face when managing their OTT platform subscriptions:

- Difficulty tracking subscriptions: With multiple subscriptions to manage, users may find it difficult to keep track of all their subscription details such as payment schedules, renewal dates, and subscription plan details. This can result in missed payments or unwanted renewals.

- Subscription overlap: With multiple OTT platform subscriptions, users may inadvertently subscribe to the same content on multiple platforms, resulting in unnecessary expenses.

- Payment issues: Users may face issues with payment, such as failed payments, double payments, or unauthorized charges, which can be time-consuming and frustrating to resolve.

- Lack of transparency: Some OTT platforms may not provide users with detailed information about their subscriptions, making it difficult for users to understand their subscription usage or make informed decisions about their subscriptions.

- Difficulty canceling subscriptions: Cancelling subscriptions can be a tedious process, as users may need to navigate through multiple pages or contact customer support to cancel their subscription. Moreover, some OTT platforms may not make it easy for users to cancel their subscriptions, leading to unwanted renewals and charges.

- Limited subscription management options: Some OTT platforms may not provide users with a comprehensive set of subscription management options, such as the ability to pause subscriptions or change subscription plans.

- Security and privacy concerns: Users may be hesitant to use subscription management tools due to concerns about data privacy and security, such as the storage of their financial information on third-party platforms.

To address these challenges, developers of subscription management tools and OTT platforms are constantly working to improve their services. For instance, some subscription management tools provide users with a centralized platform for managing all their subscriptions, with features such as automated renewal reminders, cancellation options, and payment tracking. Moreover, some OTT platforms are working to improve their subscription management options, providing users with greater flexibility and transparency.

Overall, as more people subscribe to multiple OTT platforms, it is important for developers to continue to innovate and improve subscription management tools and services to provide users with a more seamless and secure experience.

2.5 NEED FOR NEW SYSTEM

With the increasing number of OTT platforms available, it has become challenging for users to manage multiple subscriptions efficiently. The need for a centralized platform to manage subscriptions has become more evident than ever. Existing subscription software tools offer some solutions, but there is a need for a more comprehensive solution that can address the limitations and challenges of current systems.

Here are some reasons why there is a need for new subscription software:

Centralized management: A new subscription software can offer users a centralized platform for managing all their OTT platform subscriptions, providing users with greater control and flexibility. By integrating with multiple OTT platforms, a new subscription software can provide users with a comprehensive overview of all their subscriptions, allowing them to manage their subscriptions from a single dashboard.

Customization: A new subscription software can offer users a more customizable experience, allowing them to tailor the platform to their specific needs. For instance, users may be able to set their preferred renewal dates, receive notifications based on their subscription usage, or customize their subscription categories.

Comprehensive features: A new subscription software can offer users more comprehensive features that address the limitations of existing systems. For instance, users may be able to pause subscriptions, set usage limits, or track their subscription spending habits.

Improved security: A new subscription software can offer users improved security and privacy measures, ensuring that their financial information is stored securely and protected from unauthorized access. By providing users with a more secure platform, users may be more likely to trust and use the software.

Better integration with OTT platforms: A new subscription software can provide users with better integration with OTT platforms, allowing users to manage their

subscriptions seamlessly. For instance, a new subscription software may be able to automatically cancel unwanted subscriptions, provide users with detailed subscription information, or allow users to easily switch between subscription plans.

Accessibility: A new subscription software can be designed to be more accessible to a wider range of users, including those with disabilities. By providing users with a more accessible platform, users with disabilities can more easily manage their subscriptions.

In conclusion, the need for a new subscription software has become more apparent as more people subscribe to multiple OTT platforms. A new subscription software can provide users with a centralized platform to manage their subscriptions, customizable features, comprehensive features, improved security, better integration with OTT platforms, and better accessibility. By addressing the limitations and challenges of existing systems, a new subscription software can provide users with a more seamless and efficient subscription management experience.

CHAPTER-3

SYSTEM REQUIREMENTS

3.1 INTRODUCTION

Developing a subscription software to manage multiple OTT platform subscriptions requires careful consideration of the system requirements. This report outlines the system requirements needed to develop a subscription software that is scalable, efficient, and user-friendly.

3.2 SOFTWARE REQUIREMENTS

Technologies Used:

- HTML, CSS, Sass and NodeJs
- MongoDB, Express Mongoose, Cloud, Atlas

3.3 OVERVIEW OF THE TECHNOLOGIES

HTML, CSS, and SASS are essential technologies used for developing modern web applications. HTML (Hypertext Markup Language) is a markup language used to structure content on the web, while CSS (Cascading Style Sheets) is used to style and layout web pages. SASS (Syntactically Awesome Style Sheets) is a CSS preprocessor that simplifies writing and managing complex stylesheets.

HTML provides the basic structure of web pages, defining the layout and content of the page. It is the backbone of every website and allows developers to create headings, paragraphs, links, images, and other elements necessary for building web pages.

CSS, on the other hand, is used to style web pages, making them visually appealing and easy to read. CSS allows developers to customize the layout, color, and fonts of web pages, as well as create responsive designs that adapt to different screen sizes. CSS also enables the separation of content and presentation, allowing developers to change the look and feel of a website without changing its underlying structure.

SASS is a preprocessor for CSS that allows developers to write CSS more efficiently. It provides advanced features such as variables, nesting, mixins, and inheritance, making it easier to write and manage complex stylesheets. SASS also enables the use of logical operators, loops, and functions, allowing developers to create reusable code and maintain consistency across multiple projects.

One of the benefits of using SASS is the ability to modularize CSS code into smaller, reusable modules. These modules can be combined to create a master stylesheet, making it easier to manage and update styles across a website. SASS also provides error checking, improving code quality and reducing the likelihood of errors.

Another advantage of using SASS is its ability to reduce the amount of code required for styling. By using variables, mixins, and inheritance, developers can reduce the amount of repetitive code, resulting in smaller file sizes and faster page load times.

In terms of implementation, HTML, CSS, and SASS are often used together in a web development workflow. HTML provides the structure of the page, while CSS is used to style it. SASS can be used to create modular, reusable stylesheets that can be compiled into CSS for use in a web application.

MongoDB

MongoDB is a popular open-source document-oriented NoSQL database system that is designed for scalability, high availability, and performance. It stores data in flexible, JSON-like documents, which makes it an ideal choice for modern web applications that need to handle large volumes of data.

CHAPTER-4

SYSTEM IMPLEMENTATION

4.1 INTRODUCTION

In the case of a subscription software for OTT platforms, the system implementation phase would involve the development of the software that manages subscriptions and provides access to multiple OTT platforms. This involves the integration of various APIs and services provided by the OTT platforms, such as authentication, billing, and content management.

4.2. SYSTEM DESIGN

4.2.1 SYSTEM ARCHITECTURE

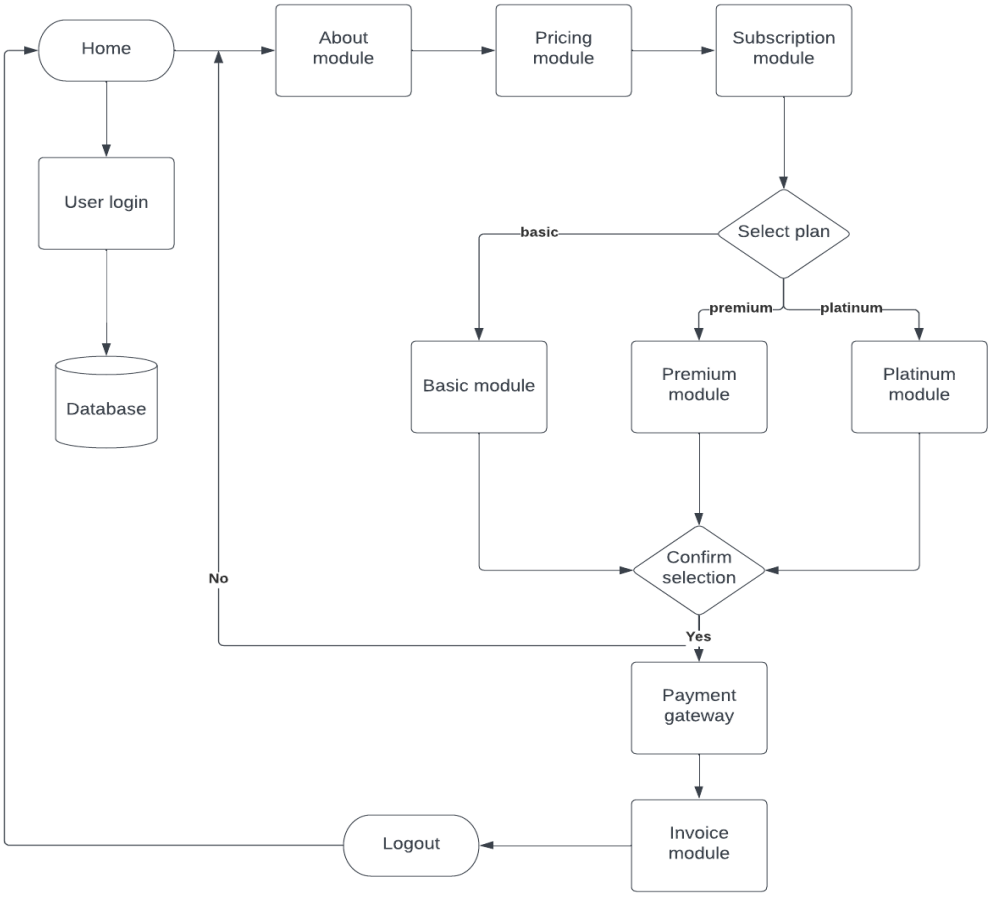

Fig 4.1 System Architecture

4.2.2 USE CASE DIAGRAM

Fig 4.2 Use Case Diagram

4.2.3 DATAFLOW DIAGRAM

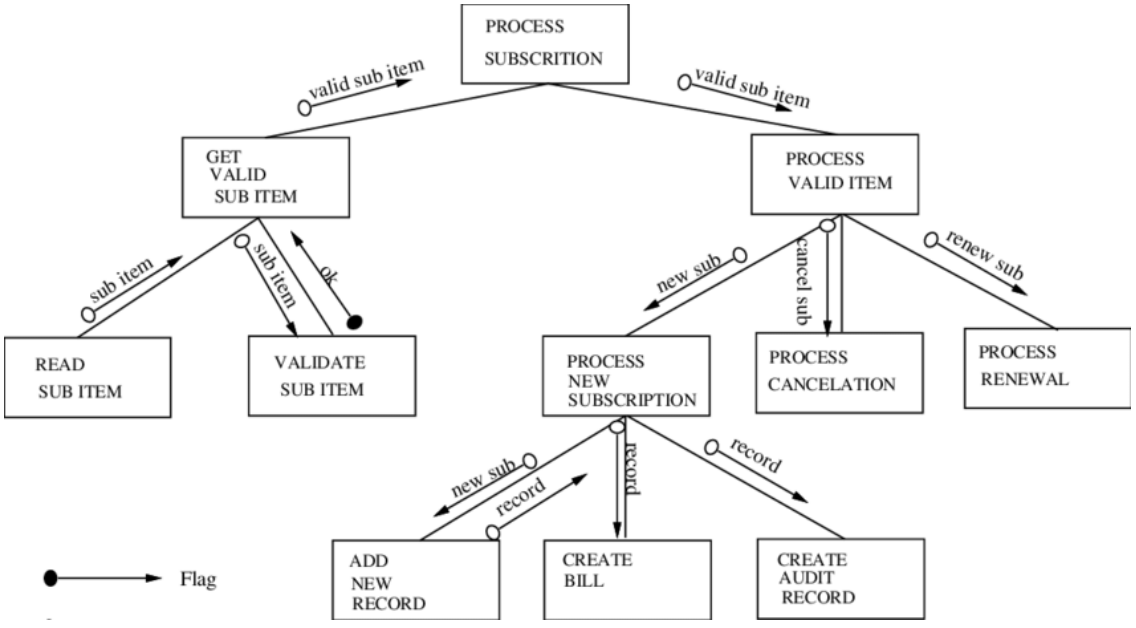

Fig 4.3 Data Flow Diagram

4.2.4 ACTIVITY DIAGRAM

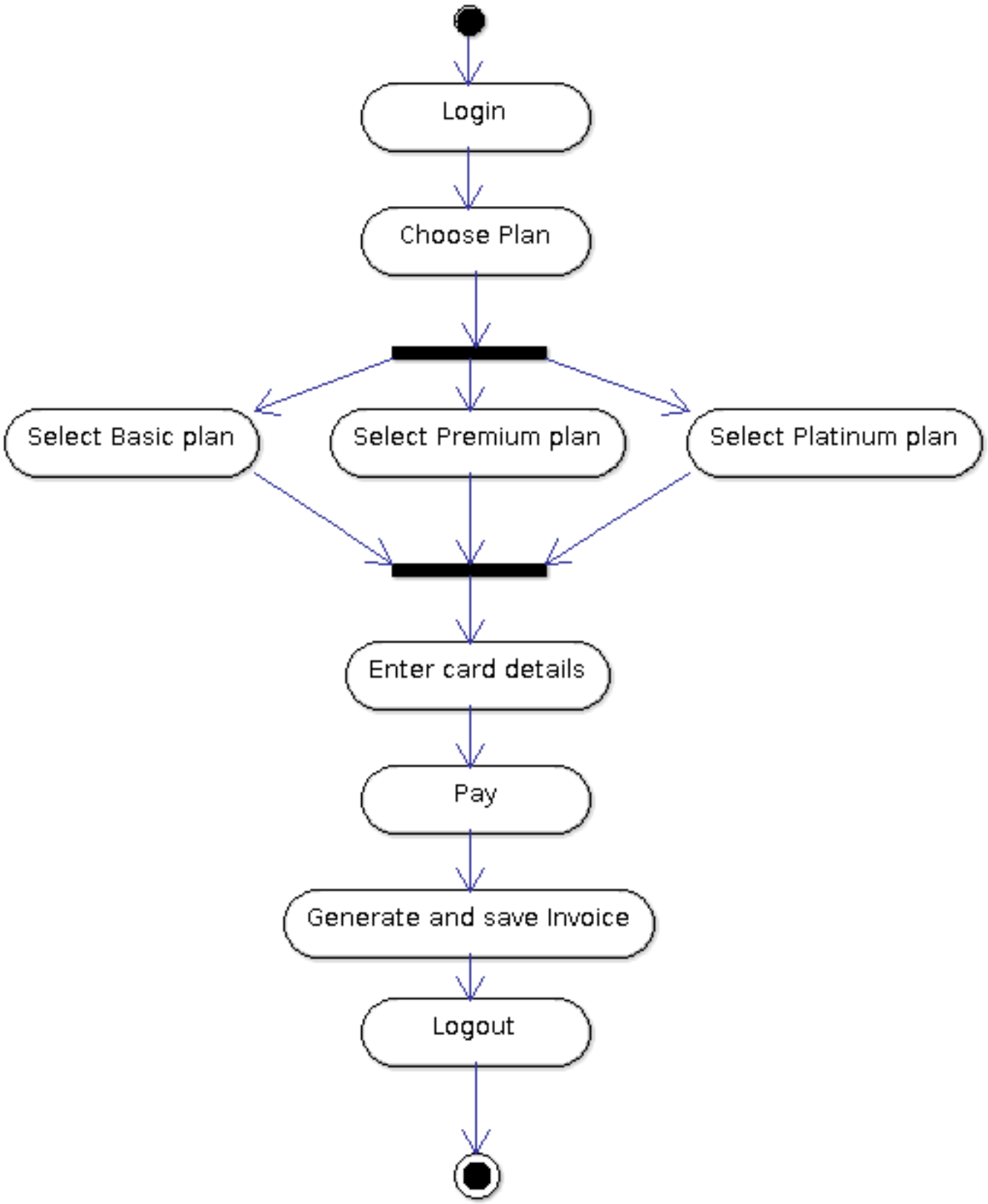

Fig 4.4 Activity Diagram

4.3. IMPLEMENTATION

Home module

The home page of a subscription software provides a brief overview of the software's features and functions. It typically includes information on the various OTT platforms that the software supports, as well as the subscription plans available for each platform. The home page may also include a login button for registered users to access their subscription information and manage their accounts. Additionally, the home page may feature promotional content for the OTT platforms supported by the software, as well as any relevant news or updates related to the software or the OTT industry.

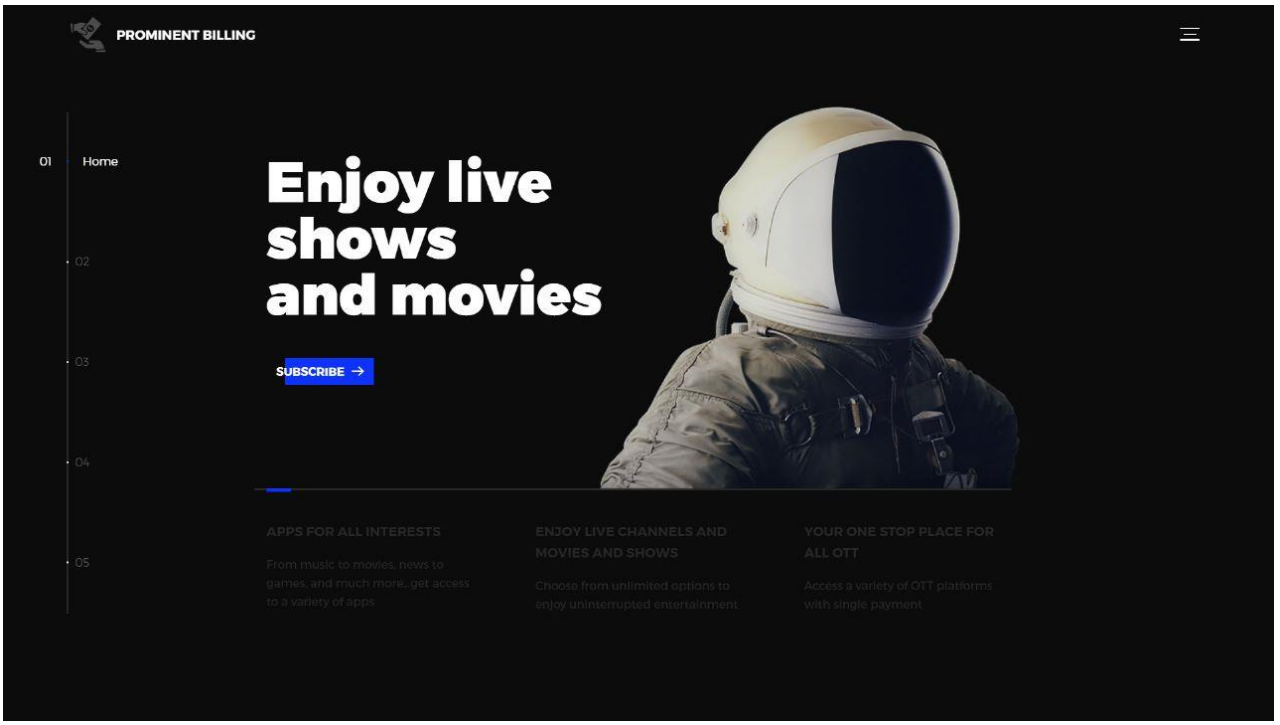

Fig 4.5.1 Home module

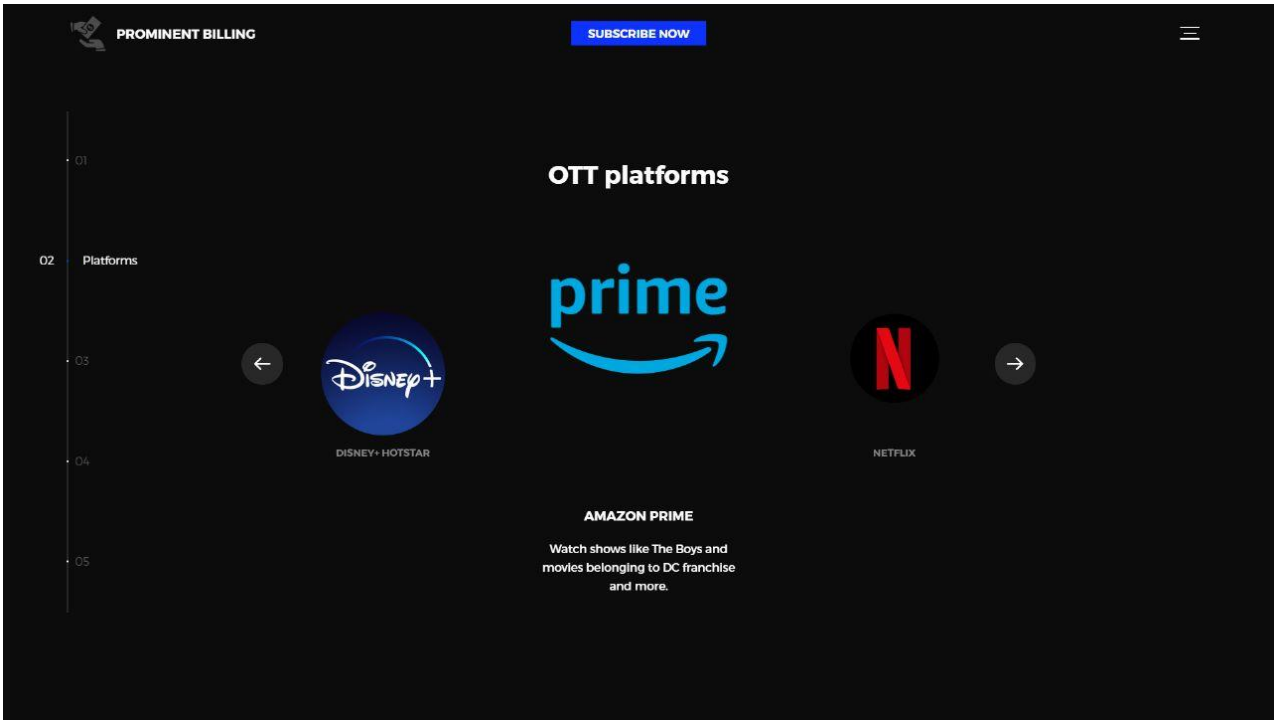

Fig 4.5.2 Home module

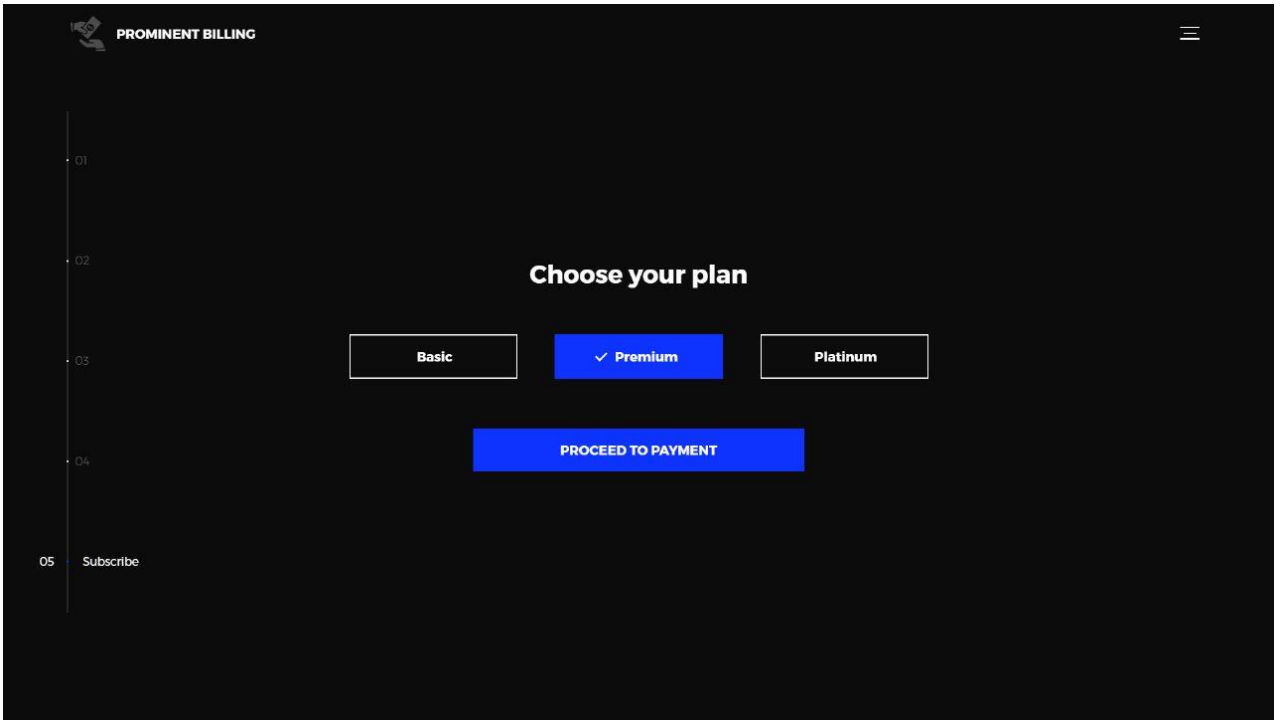

Fig 4.5.3 Home module

Login module

The login module of a subscription software allows users to access their subscription information and manage their accounts. Users typically enter their login credentials, such as a username and password, to gain access to their account. Once logged in, users can view their subscription details, such as the platforms they are subscribed to, their billing information, and their subscription status. They can also make changes to their subscription, such as upgrading or downgrading their plan, or canceling their subscription altogether.

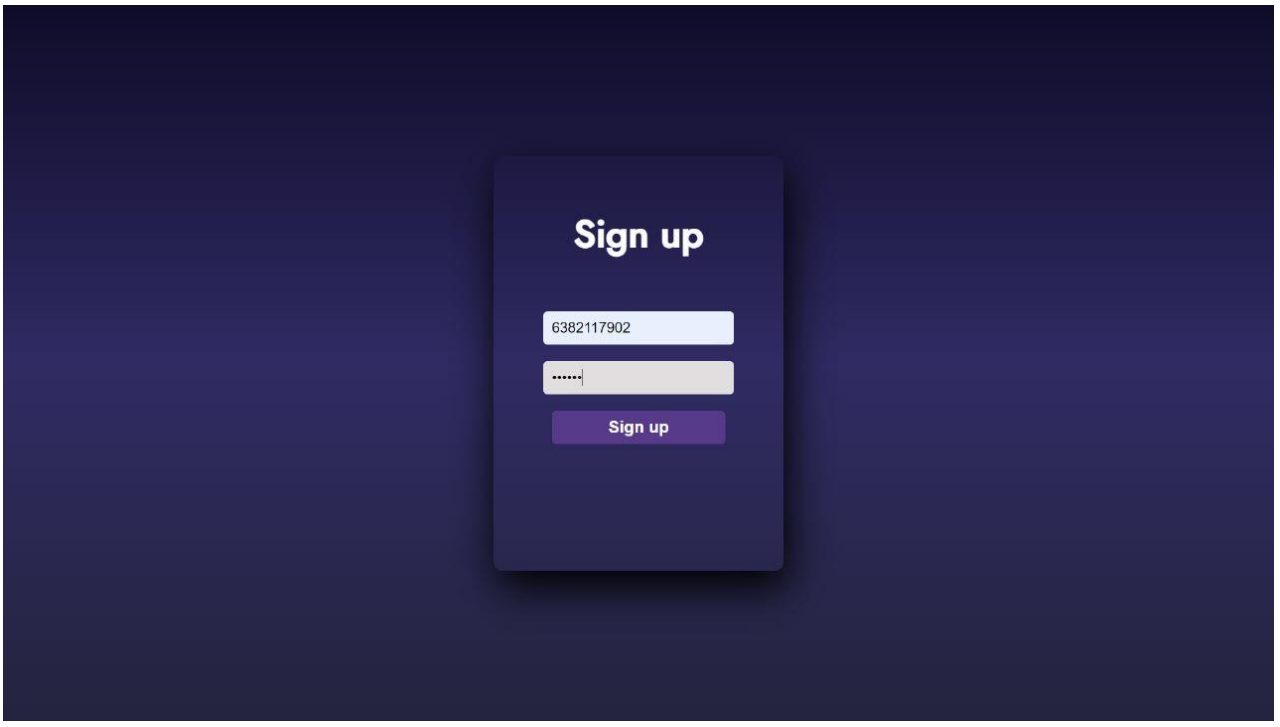

Fig 4.6 Login module

Payment module

The payment module of a subscription software enables users to securely make payments for their subscriptions. This module typically provides users with payment options, such as credit cards, debit cards. Users can enter their payment information, such as their credit card details, and securely process their payment. The payment module may also store users' payment information for future use, making it easier for them to renew their subscription in the future. Additionally, the payment module may provide users with information on their billing history, including past payments and upcoming billing cycles.

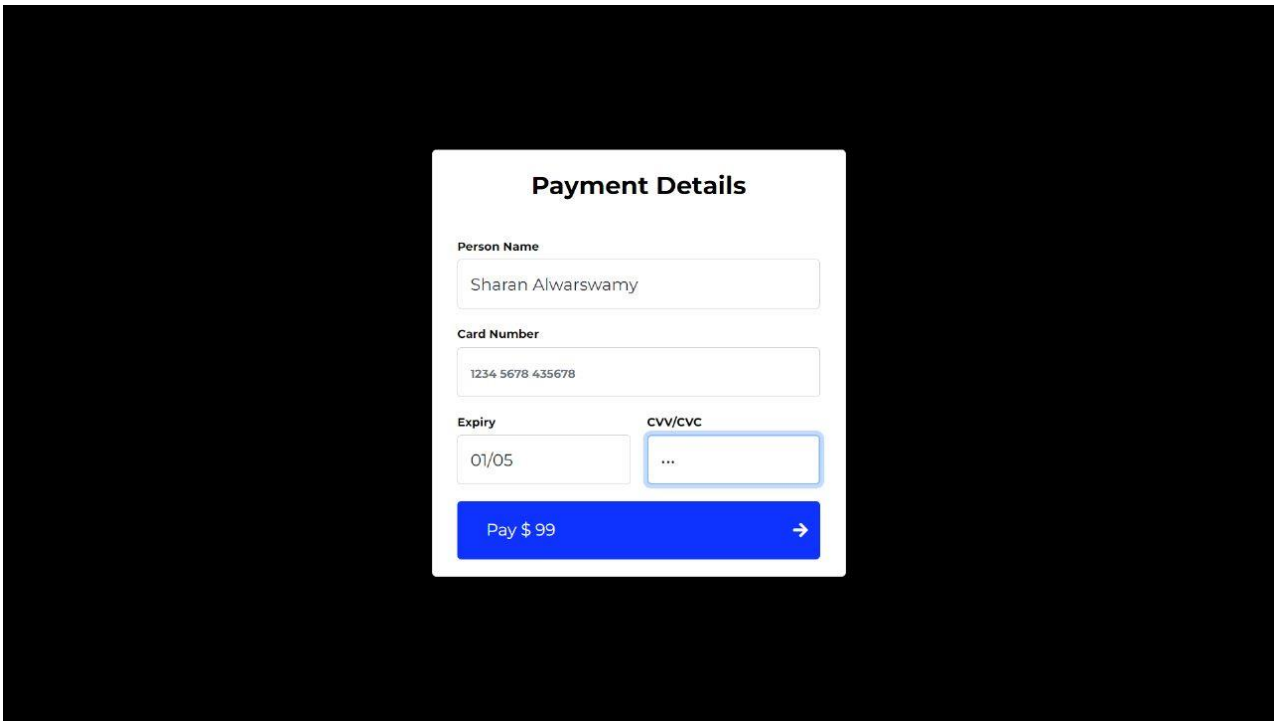

Fig 4.7 Payment module

Invoice module

The invoice generation module of a subscription software generates invoices for users' subscription payments. This module automatically generates and sends invoices to users on a regular basis, typically monthly or annually. The invoice includes information on the user's subscription plan, the amount due, and the payment due date. It may also include information on any discounts or promotions applied to the user's subscription. The invoice generation module ensures that users are aware of their payment obligations and provides them with a record of their subscription payments. Additionally, the module may provide users with the ability to download and save their invoices for their own records.

Fig 4.8.1 Invoice module

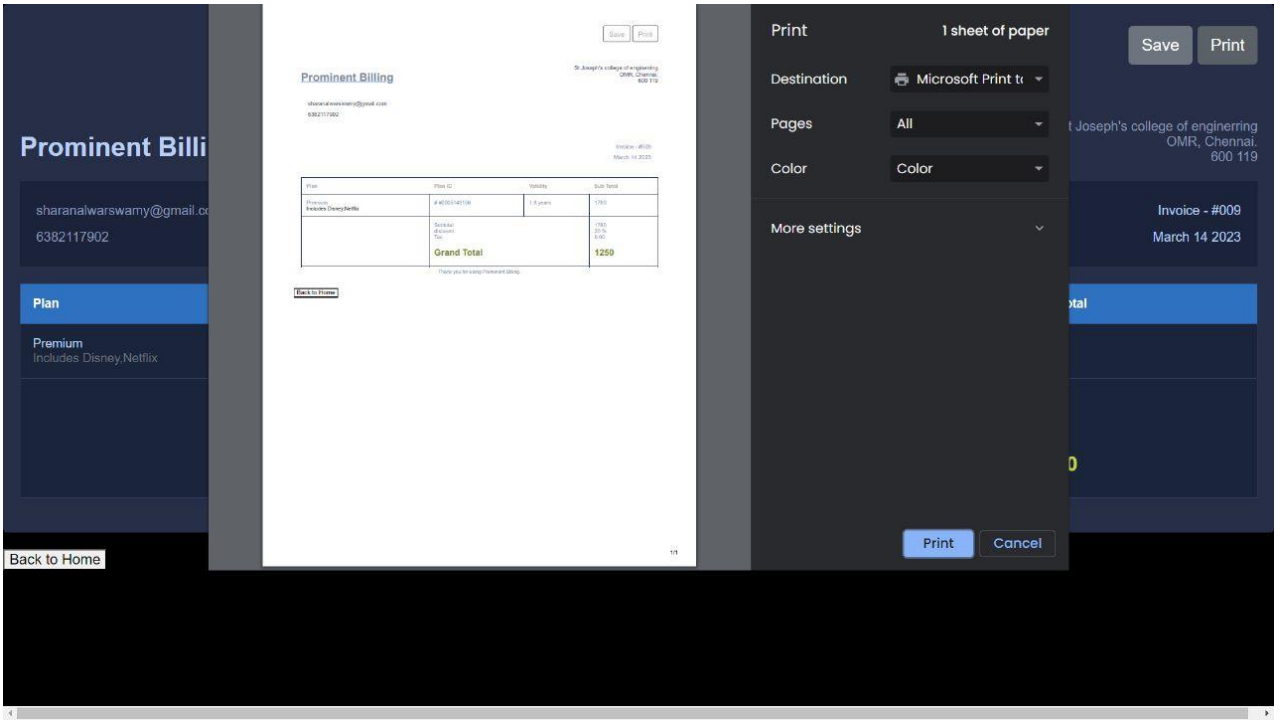

Fig 4.8.2 Invoice module

CHAPTER-5

PRICING MODULES

5.1 INTRODUCTION

The pricing module of a subscription software is a critical component that allows the software to offer users various subscription plans based on their needs and budget. This module provides users with a range of pricing options for different subscription plans, such as monthly or annual subscriptions. The pricing module is typically designed to be flexible, allowing users to choose from different tiers of pricing based on the features and functionality they require. The pricing module is also used to handle subscription renewals and cancellations, ensuring that users are billed accurately and that their subscription status is up-to-date. Overall, the pricing module is a key feature of a subscription software that helps to ensure that users can find a subscription plan that meets their needs and budget.

5.2 FACTORS FOR PRICING PLANS

5.2.1 VARIOUS PRICING MODELS

There are totally three subscription plans in Prominent billing. They are,

- Basic – Includes platforms like Disney+, Netflix, VOOT.
- Premium – Includes platforms like Disney +, Hotstar, Netflix, VOOT, Hulu +.
- Platinum – Includes platforms like Disney +, Netflix, VOOT, Hulu +, Prime.

These are basic plans available in Prominent billing which is selected by the user according to their interest.

5.2.2 FACTORS DECIDING THE PLANS

Content library: The size and quality of the content library is one of the most important factors to consider. The platform should offer a wide variety of content, including movies, TV shows, documentaries, and original programming. The content should also be of high quality and available in multiple languages.

Streaming quality: The quality of the streaming experience is critical. The platform should offer high-quality video and audio streaming with minimal buffering and interruptions.

Pricing: The pricing model should be transparent and affordable. The platform should offer a range of pricing options to suit different budgets, and users should be able to easily understand the pricing structure.

Availability: The platform should be available in the user's location, and the content should be available in the user's language. This is particularly important for international users who may face content restrictions or language barriers.

These are the main factors that are considered while implementing the pricing plan in Prominent billing. Also, analysis is done with the data that was available on the internet which tell about how people use various OTT platforms and the detailed statistics.

Based on this analysis the best pricing plans are provided to the user on minimal cost.

5.3 DATA ANALYSIS FOR OTT PLATFORMS

Data analysis is a critical component of the OTT platform industry. With the vast amount of data generated by users and their streaming habits, OTT platforms can gain valuable insights that can inform business decisions and improve the user experience.

Additionally, data analysis can provide valuable insights into user retention and churn rates. By tracking user engagement and identifying when users are most likely to cancel their subscriptions, OTT platforms can take proactive steps to improve the user experience and retain their subscribers.

Overall, data analysis is a crucial tool for OTT platforms in understanding their users and improving their service. By leveraging the insights gained through data analysis, OTT platforms can stay ahead of the competition and continue to deliver a high-quality streaming experience for their users.

The following data visualization and analysis was carried out using python and dataset available on Kaggle.

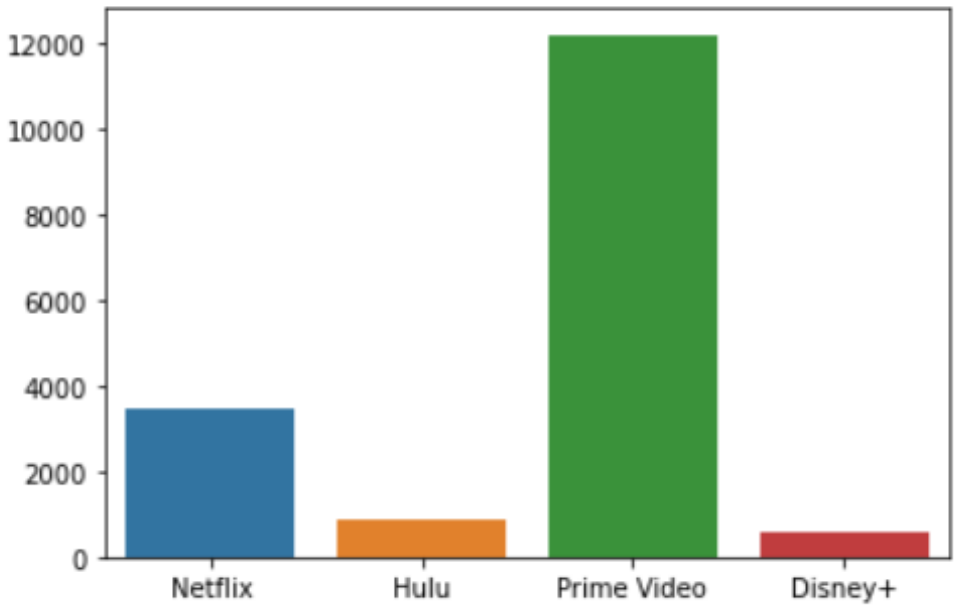

Fig 5.1 Most of the movies in our data set are from prime video platform followed by Netflix, Hulu, and Disney+.

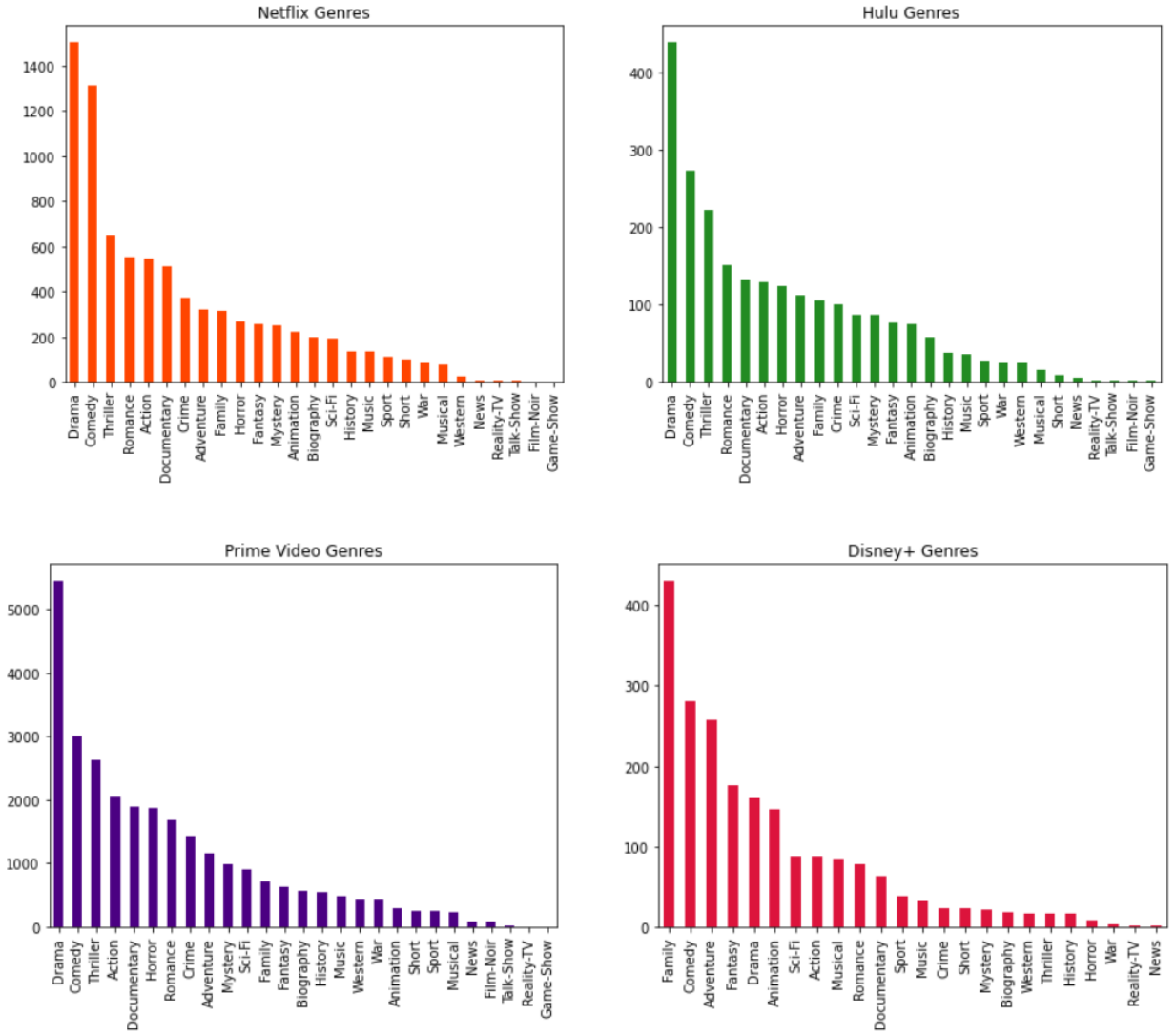

Fig 5.2 Genre analysis of OTT platforms

Drama has been one of the genres which is widely found across all the platforms with a greater number of movies which may be to attract the family crowd. All the genres are equally spread and found on each OTT platforms based on the above analysis.

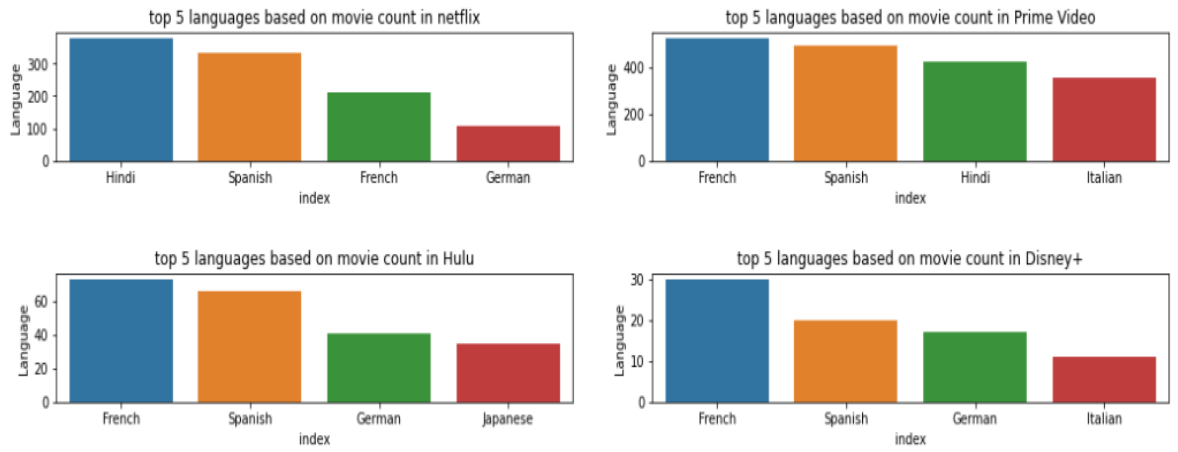

Fig 5.3 Language analysis for OTT platforms

The above visualization depicts the top 5 languages (other than English) having the highest movie count in different OTT platforms.

With the help of these analysis and visualization the pricing models are designed in such a way that the user can easily watch their favorite shows and movies easily without finding any difficulty in the subscription process.

CHAPTER-6

CONCLUSION

6.1. CONCLUSION

In conclusion, the development of a subscription software for subscribing to multiple OTT platforms is crucial in today's world, where people are consuming more and more content online. The software will help users manage their subscriptions easily and efficiently, saving them time and money. It will also enable them to discover new platforms and content, making their viewing experience more personalized.

While developing this software, several challenges and issues were identified, such as the complexity of integrating multiple platforms, the need for a secure payment system, and the importance of providing a seamless user experience. However, these challenges can be overcome through careful planning, a solid development strategy, and the use of the right tools and technologies.

The subscription software developed will have a wide range of features, such as a user-friendly interface, easy account creation and management, multiple payment options, invoice generation, and analytics and reporting capabilities. It will be built using modern web technologies, including HTML, CSS, JavaScript, and MongoDB, and will be hosted on a scalable and reliable cloud platform.

The subscription software has enormous potential, with a significant number of users looking for a solution to manage their subscriptions across multiple OTT platforms. As more and more people consume content online, the demand for such a solution is only going to increase. Furthermore, the software can be adapted to incorporate new features and functionalities as the market evolves and new platforms emerge.

6.2 LIMITATIONS

One of the main limitations of the subscription software is its dependency on the APIs provided by the various OTT platforms. If any of the platforms change their APIs or remove access to them, it could cause disruptions in the functionality of the software. Additionally, the accuracy of the information displayed in the software is dependent on the accuracy of the data provided by the OTT platforms. Inaccurate or incomplete data could lead to incorrect recommendations or billing errors.

6.3 FUTURE SCOPE

The future scope of the subscription software lies in its ability to adapt and evolve as the OTT market grows and changes. With the increasing popularity of online content consumption, the demand for a subscription management solution will only continue to grow. The software can incorporate new features and functionalities, such as recommendation engines and personalized content curation, to enhance the user experience. Additionally, the software can expand to support more platforms and payment options, making it more accessible to users around the world. As the market becomes more competitive, the subscription software can help users make informed decisions and get the most out of their subscriptions.

APPENDICES

SAMPLE SOURCE CODE

```
const express=require('express')
const app=express()
const fs = require('fs');
const output = fs.readFileSync(__dirname+'/user.html','utf-8');
const invoice = fs.readFileSync(__dirname+'/invoice.html','utf-8');
const validation = fs.readFileSync(__dirname+'/validation.html','utf-8');
var mongoose=require('mongoose')
var bodyparser=require('body-parser')
app.use(bodyparser.json())
app.use(express.static('public'))
app.use(bodyparser.urlencoded({
    extended:true
}))
mongoose.connect("mongodb://localhost:27017/Sharan",{
    useNewUrlParser:true,
    useUnifiedTopology:true
})
var db=mongoose.connection
db.on('error',()=>console.log('connection error'))
db.once('open',()=>{
    console.log("connected to db")
})
app.get('/',(req,res)=>{
    res.sendFile(__dirname + '/index.html');
})
app.get('/Signin',(req,res)=>{
    res.sendFile(__dirname + '/Signin.html');
```

```
})
var u;
var ph;
app.get('/user',(req,res)=>{
    var user = req.query;
    u = user;
    ph = parseInt(user.ph);
    var pswd = user.pswd;

    db.collection('coll').findOne({"Phone_number":ph,"password":pswd},(err,data)=>{
        if(err){
            throw err;
        }else{
            console.log(data);
            console.log(ph);
            console.log(u);
            if(data != null){
                let o = output.replace('{%ph%}', data.Phone_number);
                o=o.replaceAll('{%email%}', data.email);
                o=o.replace('{%plan%}', data.plan);
                o=o.replace('{%date%}', data.date);
                res.send(o);
            }else{
                res.send("Wrong ph and pswd");
            }
        }
    })
})
app.get('/payment',(req,res)=>{
    res.sendFile(__dirname + '/payment.html');
})
```

```
var y;
app.get('/validation',(req,res)=>{
   db.collection('coll').updateOne({Phone_number:ph},{$set:{plan:req.query.radio}},(err,data)=>{
      if(err){
         throw err;
      }else{
         y=req.query.radio;
         u=data;
         console.log(data);
         let z;
         if(y=="Basic"){
            z = validation.replace('{%amt%}', 999);
            res.send(z);
          }
      }
})
})
app.get('/invoice',(req,res)=>{
   db.collection('coll').findOne({"Phone_number":ph},(err,data)=>{
      if(err){
         throw err;
      }else{
         let x;
         x = invoice.replace('{%mail%}', data.email);
         res.send(x);
      }
   })
})
app.listen(3133,()=>{
   console.log("port 3133"); })
```

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