FLASH FLIXX

PROJECT THESIS

SUBMITTED

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AWH ENGINEERING COLLEGE

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BY

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DEPARTMENT OF COMPUTER APPLICATIONS

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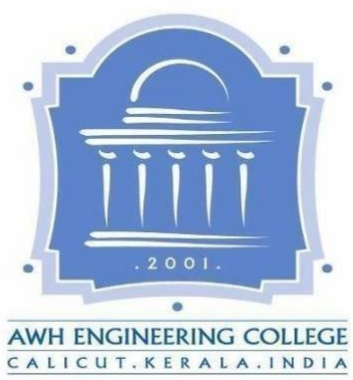

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CERTIFICATE

This is to certify that this thesis entitled ***"flashflixx"*** *submitted herewith is an authentic record of the thesis work done by* ***AVINASH S (AWH22MCA-2014)*** *under our guidance in partial fulfillment of the requirements for the award of* ***Master of Computer Applications*** *from APJ Abdul Kalam Technological University during the academic year 2023.*

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AVINASH S

ABSTRACT

This project introduces a cutting-edge free online movie streaming website, “ Flash Flixx ” designed to provide users with an immersive and user-friendly platform for accessing a vast library of diverse films. Leveraging advanced streaming technology, our platform aims to deliver a seamless viewing experience while prioritizing user convenience and content variety. The website incorporates intuitive navigation, personalized recommendations, and a robust search feature to enhance user engagement. Additionally, we emphasize a commitment to user privacy and content legality, ensuring a secure and enjoyable cinematic experience for audiences worldwide. “Flash Flixx” represents a pioneering step towards democratizing access to high-quality entertainment, making the world of cinema accessible to all.

The main objective of this website is to offer users a seamless and cost free movie watching experience, eliminating the need for subscription or payments. Users can effortlessly explore a wide range of movie organized by categories and genres all without the intrusion of ads.

CONTENTS

INTRODUCTION

1. INTRODUCTION

Welcome to the future of cinematic entertainment with our revolutionary free online movie streaming website. In an era where digital experiences dominate, we proudly present a platform that redefines how audiences engage with films. This introduction unveils the inception of our website, outlining its core features designed to elevate your movie-watching journey. From an extensive library of diverse genres to an intuitive user interface and advanced streaming capabilities, our platform is poised to deliver a seamless and enriching experience. Join us as we embark on a cinematic adventure, making high-quality movies accessible to everyone, anytime, anywhere. Welcome to a new era of entertainment – welcome to our free online movie streaming revolution

SYSTEM ANALYSIS

2. SYSTEM ANALYSIS

2.1 Existing system

Traditional online movie streaming websites involves Subscription Costs, many platforms require a subscription fee, which can add up if users subscribe to multiple services. Limited Offline Access, not all platforms offer a robust offline viewing option, limiting access to content in areas with no internet connectivity.

Geographic Restrictions, some content may be restricted based on geographical locations, limiting accessibility for users in certain regions. Privacy Concerns, streaming services may collect user data for targeted advertising, raising privacy issues for some users. Content Gaps, exclusive content deals with competing platforms can results in fragmentation, requiring users to subscribe to multiple services to access their desired content. Quality Variability, streaming quality may vary depending on the user's device, internet speed, and the platform's servers. Security Risks, online streaming platforms may be susceptible to security vulnerabilities, potentially putting user data at risk.

2.2 Proposed system

The proposed system of Flashflixx uses User Registration and profile, allows users to create accounts to personalize their experience. Provide options for profile customization and preferences. Intuitive user interface, Design a user-friendly interface for easy navigation and content discovery. Implement responsive design for compatibility with various devices. Content Library, build a diverse and extensive library of movies, categorized for easy browsing. Include a search feature for users to find specific titles. This website allow users to watch their favorite movies.

This system provide movies requested by the users ,in this system we propose movie recommendation system that as the ability to recommend movies to its users. Regular updates, keeps the content library updated with new release and regularly update the platform to address bugs and enhance features.

2.3 Module Description

This project has 2 modules:

Admin:

- View Users
- Add Category
- View Category
- Add Movie
- View Movie
- View Suggestions
- Send Reply
- Change Password

User :

- Sign-up
- Login
- View Profile
- Search Category
- Search Movie
- Add Suggestion
- View Suggestion
- Change Password
- Watch movie

2.4 Sprint

Module	Task	Hours for completion	Expected date of completion	Actual date of completion	Reason for deviation
Admin	Login	3 hours	26/09/2023	26/09/2023	-
	Manage category	5 hours	30/09/2023	30/09/2023	-
	Manage movie	5 hours	03/10/2023	03/10/2023	-
	View suggestions	3 hours	07/10/2023	07/10/2023	-
	Send reply	2 hours	10/10/2023	10/10/2023	-
	Change password	4 hours	10/10/2023	10/10/2023	-
	View users	3 hours	14/10/2023	14/10/2023	-
	Validation	2 hours	14/10/2023	14/10/2023	-
	Design	3 hours	15/10/2023	15/10/2023	-

Module	Task	Hours for completion	Expected date of completion	Actual date of completion	Reason for deviation
User	Register	3 hours	17/10/2023	17/10/2023	-
	Search category	5 hours	31/10/2023	31/10/2023	-
	Search movie	5 hours	07/11/2023	07/11/2023	-
	Add suggestions	3 hours	14/11/2023	14/11/2023	-
	View reply	2 hours	14/11/2023	14/11/2023	-
	Watch movie	4 hours	21/11/2023	21/11/2023	-
	View profile	2 hours	21/11/2023	21/11/2023	-
	Validation	3 hours	28/11/2023	28/11/2023	-
	Design	3 hours	28/11/2023	28/11/2023	-

2.5 User Stories

Flash Flixx is a web application which consists of 2 modules as Admin and User. Admin will be able to manage the Users. Admin will be able to add & view Category , Movie and view Suggestions.

User will be able to sign-up for the Flash Flixx platform by providing personal information and then log in to account using email and password and change password for security purpose. User will be able to view their profile, search category, search movie, add suggestions, view suggestion, watch movie

FEASIBILITY STUDY

3. FEASIBILITY STUDY

System study is the best of system proposed according to work ability, impact on the organization ability to meet user needs, and effective use of resources. The prime focus of the feasibility study is evaluating the practicability of the proposed system keeping in mind a number of factors.

3.1 Economical Feasibility

The system being developed is economic with respect to user's point of view. The cost of development is very less, all the requirements such as data, hardware and software requirements etc. were provided by the management. So, it is economically feasible.

3.2 Technical Feasibility

The technical requirements for the system are economic and it does not use any other additional hardware. Since all the requirements are within the reach of modern technology, developers would say that this system is technically feasible.

3.3 Operational Feasibility

Operational feasibility is a measure of how well a proposed system meets all requirements. Since the system is user friendly, this considered to be operationally feasible. The system is user friendly. There is not much manual work involved which ultimately reduces the pressure of work of all the entities.

3.4 Software Feasibility

Even though this application is developed in very high software environment, this also supported by many other environments with minimum changes. The system is fully feasible to be executed on any kind of operating systems and browsers.

SOFTWARE ENGINEERING

PARADIGM

4. SOFTWARE ENGINEERING PARADIGM

The software engineering paradigm which is also referred to as a software process model or Software Development Life Cycle (SDLC) model is the development strategy that encompasses the process, methods and tools. SDLC describes the period of time that starts with the software system being conceptualized.

4.1 Agile model

Agile SDLC model is a combination of iterative and incremental process models with focus on process adaptability and customer satisfaction by rapid delivery of working software product. Agile Methods break the product into small incremental builds. These builds are provided in iterations. Each iteration typically lasts from about one to three weeks. At the end of the iteration, a working product is displayed to the customer and important stakeholders. Agile Methods break the product into small incremental builds. These builds are provided in iterations. Each iteration typically lasts from about one to three weeks. In Agile, the tasks are divided to time boxes (small time frames) to deliver specific features for a release.

4.2 Scrum

Scrum is an agile framework for managing knowledge work, with an emphasis on software development. It is designed for teams of three to nine members, who break their work into actions that can be completed within time boxed iterations, called "sprints", no longer than one month and most commonly two weeks, then track progress and re-plan in 15-minute stand-up meetings, called daily scrums.Scrum is an iterative and incremental framework for managing product development. It defines "a flexible, holistic product development strategy where a development team works as a unit to reach a common goal", challenges assumptions of the "traditional, sequential approach to product development, and enables teams to self-organize by encouraging physical co-location or close online collaboration of all team members, as well as daily face-to-face communication among all team members and disciplines involved.

SYSTEM REQUIREMENT SPECIFICATION

5. SYSTEM REQUIREMENTS SPECIFICATION

5.1 Software Requirements

- Operating system : Windows 8 or above
- Frontend : HTML,CSS
- Backend : Python
- Database : SQLyog
- Language used : python
- IDE :PyCharm
- Web browser :Microsoft Edge /Google Chrome/Explorer etc.
- Framework :Django

5.2 Hardware Requirements

- A device with an internet connection
- Processor :intel core i3 or above
- System Bus :32 bit or 64 bits
- RAM : 4 GB or Above
- HDD :500 GB or Above
- Monitor ;14'' LCD or Above

SYSTEM DESIGN

6. SYSTEM DESIGN

System design is the first in the development phase for many engineered product or system. It may define the process of applying various techniques and principles for the purpose of defining a device, a process or system in sufficient detail to permit its physical realization.

6.1. Database Design

Database design is the process of producing a detailed data model of a database. This logical data model contains all the needed logical and physical design choices and physical storage parameters needed to generate a design in a data definition language, which can then be used to create a database. The term database design can be used to describe many different parts of the design of an overall database system. Principally, and most correctly, it can be thought of as the logical design of the base data structures used to store the data.

In the relational model these are the tables and views. In an object database the entities and relationships map directly to object classes and named relationships. However, the term database design could also be used to apply to the overall process of designing, not just the base data structures, but also the forms and queries used as part of the overall database application within the database management system. The process of doing database design generally consists of a number of steps which will be carried out by the database designer. Usually, the designer must: Determine the relationships between the different data elements and superimpose a logical structure upon the data on the basis of these relationships.

Normalization

It is a process of converting a relation to a standard form. The process is used to handle the problems that can arise due to data redundancy i.e., repetition of data in the database, maintain data integrity as well as handling problems that can arise due to insertion, updation, deletion anomalies.

Insertion anomaly: Inability to add data to the database due to absence of other data.

Deletion anomaly: Unintended loss of data due to deletion of other data.

Update anomaly: Data inconsistency resulting from data redundancy and partial update.

Normal Forms: These are the rules for structuring relations that eliminate anomalies.

1. First Normal Form (1NF)

A relation is said to be in first normal form if the values in the relation are atomic for every attribute in the relation. This mean simply that no attribute value can be a set of values or, as it is sometimes expressed, a repeating group.

2. Second Normal Form (2NF)

A relation is said to be in second Normal form is it is in first normal form and it should satisfy any one of the following rules.

- Primary key is a not a composite primary key
- No non key attributes are present
- Every non key attribute is fully functionally dependent on full set of primary keys.

3.Third normal Form(3NF)

A relation is said to be in third normal form if there exist no transitive dependencies.

Transitive dependency: If two non-key attributes depend on each other as well on the primary key then they are said to be transitively dependent. the above normalization principle was applied to decompose the data in multiple tables thereby making the data to be maintained in a consistent state.

6.2 Tables

login

Field	Datatype	Description
Login_id	int(11)	Primary Key
Username	varchar(100)	Not Null
Password	varchar(10)	Not Null
Type	varchar(20)	Not Null

User

Field	Data type	Description
User_id	int(11)	Primary Key
Gender	varchar(50)	Not null
State	varchar(100)	Not null
Email	varchar(50)	Not null
phone_no	varchar(50)	Not null
Login_Id	int(11)	Foreign Key
Status	varchar(50)	Not null

Suggestion

Field	**Datatype**	**Description**
Sid	int(11)	Primary Key
Movie name	varchar(50)	Not Null
Date	varchar(50)	Not Null
Status	varchar(50)	Not Null
User_Id	int(11)	Foreign Key
Reply	varchar(50)	Not Null

Movie

Field	**Datatype**	**Description**
Movie_id	int(11)	Primary Key
Movie Description	Varchar(500)	Not Null
Movie Picture	varchar(500)	Not Null
Movie	varchar(500)	Not Null
Category_Id	int(11)	Foreign Key
Trailer	varchar(500)	Not Null
Movie name	varchar(50)	Not Null

Category

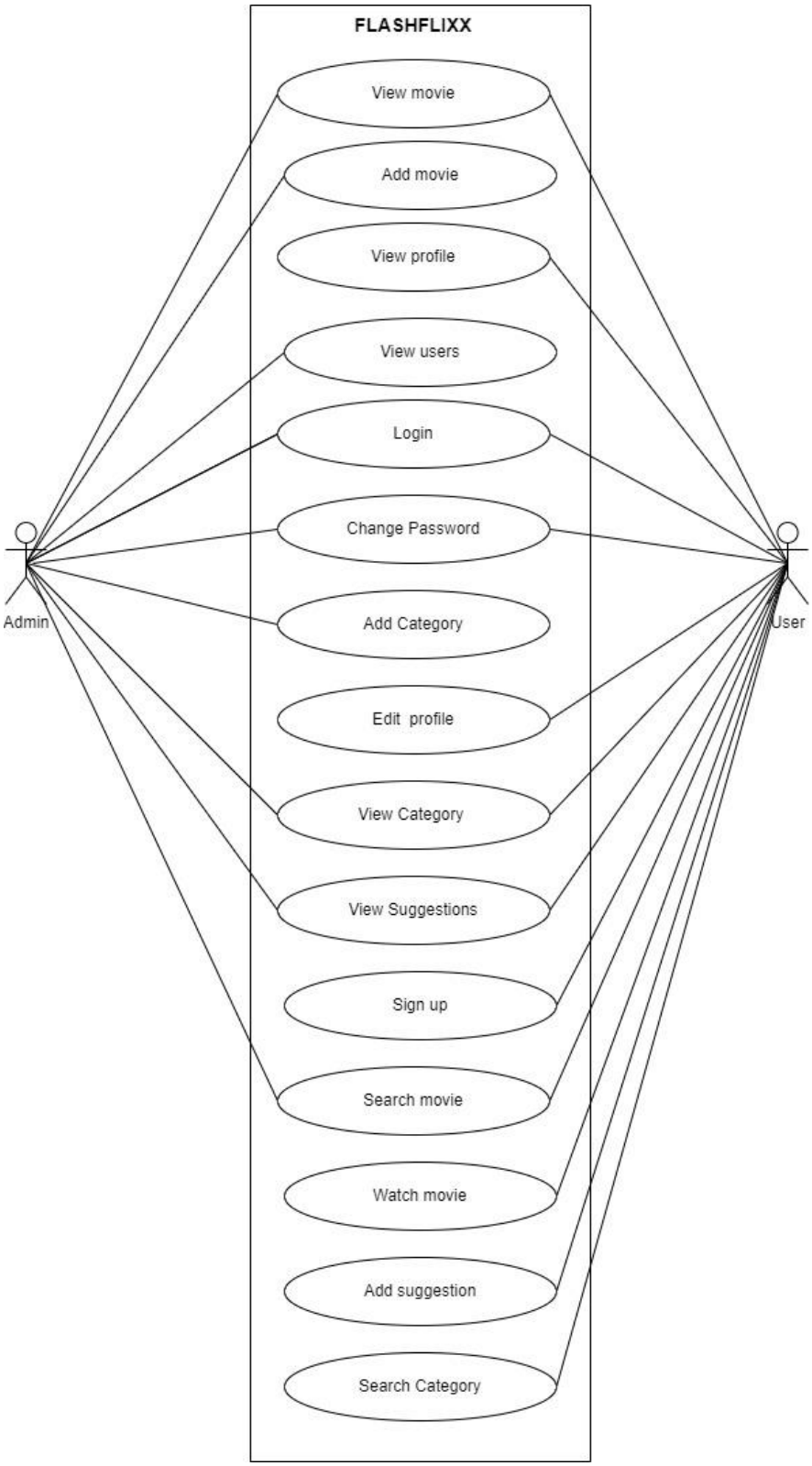
Field	Datatype	Description
Category_Id	int(11)	Primary Key
Category_name	varchar(50)	Not Null

6.3 UML Designs

The Unified Modelling Language (UML) is a standard language for specifying, visualizing, constructing, and documenting the artefacts of the software systems, as well as for business modelling and other non-software systems. The UML represents a collection of best engineering practices that have proven successful in the modelling of large and complex systems. The UML is a very important part of developing object-oriented software and the software development process. The UML uses mostly graphical notations to express the design of software projects. Using the UML helps project teams communicate, explore potential designs, and validate the architectural design of the software.

A use case diagram is a type of UML diagram that represents the functionality of a system from the user's perspective. It provides a high-level view of the system's behavior and shows how users or actors interact with the system to accomplish specific goals or tasks. Use case diagrams are useful for capturing and visualizing the requirements of a system and identifying the actors involved and the use cases they participate in.

6.4 Use case diagram



6.5 Scenario

Admin:

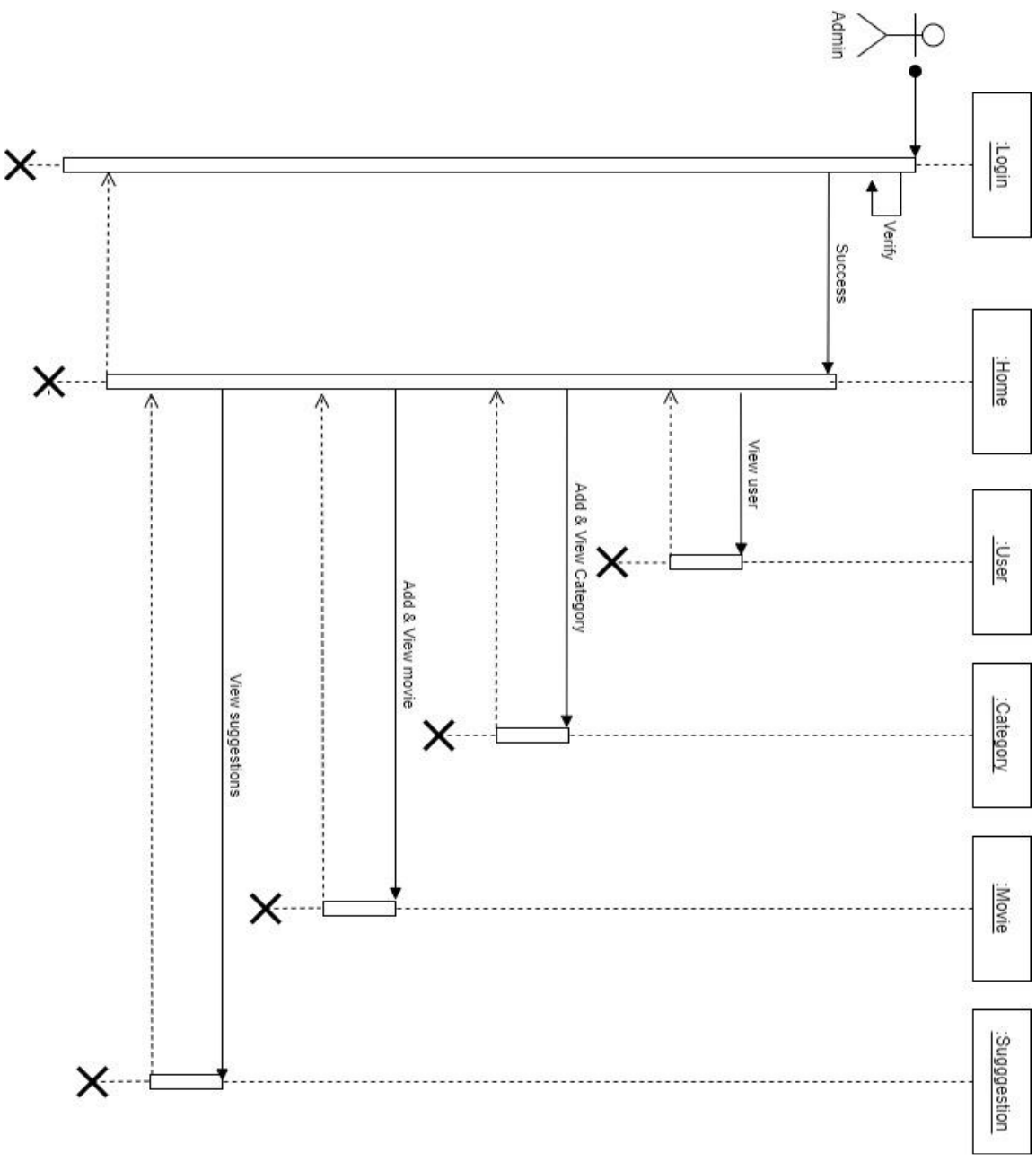
- Can Login
- Can view Users
- Can add Category
- Can view Category
- Can add Movie
- Can view Movie
- Can View Suggestions and Send reply
- Can change password

User:

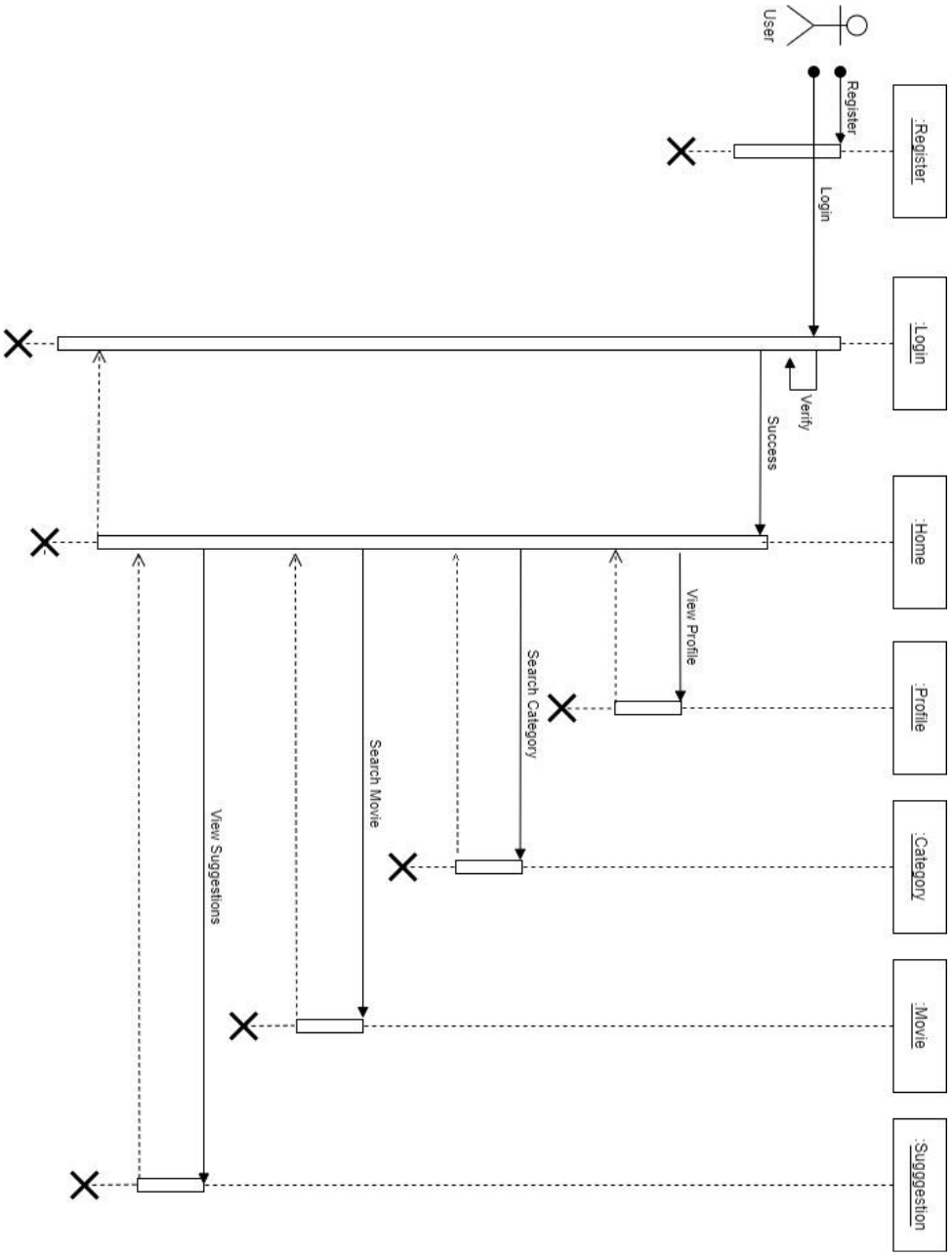
- Can Sign up and login
- Can change Password
- Can view Profile
- Can edit Profile
- Can search Category
- Can watch Movie
- Can add Suggestion
- Can view Suggestion

6.6 SequenceDiagram

Admin



User


User
:Register
Register
Login
:Login
Verify
Success
:Home
View Profile
:Profile
Search Category
:Category
Search Movie
:Movie
View Suggestions
:Suggestion

SYSTEM DEVELOPMENT

7. SYSTEM DEVELOPMENT

System development is series of operations to manipulate data to produce output from computer system. The principal activities performed during the development phase can be divided into two major related sequences.

•External system development

•Internal system development

The major external system activities are:

- •Implementation
- •Planning
- •Equipment acquisition
- •Installation

7.1 Coding

The purpose of code is to facilitate the identification and retrieval of items of information. A code is an ordered collection of symbols designed to provide unique identification of entity or an attribute. Code also show interrelationship among different items. Codes are used to identify, access, sort, matching records. The code ensures that only one value of code with a single meaning is applied to give entity or attribute as described in various ways.

PYTHON

Python is a multi-paradigm programming language. Object- oriented programming and structured programming are fully supported, and many of its features support functional programming and aspect-oriented. Python uses dynamic typing, and a combination of reference counting and a cycle detecting garbage collector for memory management. It also features dynamic name resolution (late binding), which binds method and variable names during program execution.

Python is a multi-paradigm programming language. Object-oriented programming and structured programming are fully supported, and many of its features support functional programming and aspect-oriented programming (including

meta programming and meta objects(magic methods). Many other paradigms are supported via extensions, including design by
contract and logic programming.

Python uses dynamic typing and a combination of reference counting and a cycle-detecting garbage collector for memory management. It also features dynamic numeric solution(latebind–ing),which binds method and variable names during program execution.

JAVASCRIPT

JavaScript often abbreviated as JS, is a programming language that is one of the core technologies of the World Wide Web, alongside HTML and CSS. As of 2022, 98% of websites use JavaScript on the client side for webpage behavior, often incorporating third-party libraries. All major web browsers have a dedicated JavaScript engine to execute the code on users' devices.

JavaScript is a high-level, often just-in-time compiled language that conforms to the ECMAScript standard. It has dynamic typing, prototype-based object-orientation, and first-class functions. It is multi-paradigm, supporting event- driven, functional, and imperative programming styles. It has application programming interfaces (APIs) for working with text, dates, regular expressions, standard data structures, and the Document Object Model (DOM).

CSS

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML or XML(including XML dialects such as SVG, MathML or XHTML). CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

CSS is designed to enable the separation of content and presentation, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a

separate .CSS file, which reduces complexity and repetition in the structural content and enable the .CSS file to be cached to improve the page load speed between the pages that share the file and its formatting.

HTML

The Hypertext Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser. It is often assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.

Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for its appearance.

Libraries

Python's large standard library, commonly cited as one of its greatest strengths, provides tools suited too many tasks. For Internet-facing applications, many standard formats and protocols such as MIME and HTTP are supported. It includes modules for creating graphical user interfaces, connecting to relational databases, generating pseudo random numbers, arithmetic with arbitrary precision decimals, manipulating regular expressions, and unit testing.

MYSQL

MySQL is an open-source relational database management system (RDBMS).The MySQL development project has made its source code available under the terms of the GNU General Public License, as well as under a variety of proprietary agreements. MySQL is offered under two different editions: the open source MySQL Community Server and the proprietary Enterprise Server. MySQL Enterprise Server is differentiated by a series of proprietary extensions which install as server plugins, but otherwise share the version numbering system and are built from the same code base.

SYSTEM TESTING AND IMPLEMENTATION

8.SYSTEM TESTING AND IMPLEMENTATION

Testing is the vital to the success of the system. It makes a logical assumption that if all the parts of the system are correct, the goal will be successfully achieved in this project. It is the stage of implementation, which ensures that system works accurately and effectively before the live operation commences. It is a confirmation that all are correct and opportunity to show users that the system must be tested and show that the system will operate successfully and produce expected results under expected conditions.

8.1 Types of Testing

Different types of testing are:

- Unit testing
- Integration testing
- System testing
- Validation testing

Unit testing

Verifies the correctness of individual units or components of the software. Ensures that each function, procedure, or module works as intended. Tests individual functions like loan application submission, approval logic, and EMI calculation.

Integration Testing

Verifies the interaction between different components and ensure they work seamlessly together. Tests the integration between the loan application module and the approval module. Verifies data flow and consistency between customer details, loan information, and EMI calculations.

System Testing

Verifies the system as a whole to ensure it meets the specified requirements. Tests the entire loan application process from submission to approval, including customer tracking. Verifies system response to simultaneous user interactions and stress testing for peak load scenarios.

Validation Testing

Ensure that the developed system satisfies the specified requirements and meets the customer's needs. Validate that customers can successfully apply for loans online and track their status. Confirm that the system provides accurate loan details, EMI information, and interest rates.

8.2 Implementation

Implementation is the stage of project, when theoretical design is turned in to a working system. The most crucial stage is achieving a successful systemand confidence that the new system will be work effectively. It involves careful planning, investigation of the manual system and to new system. Implementation means converting a new or revised system design into an operational one. The implementation includes all those activities that take place to convert from the old system to the new one.

There are several activities involved while implementing a project:

- Careful planning.
- Investigating the current system and its constraints on implementation.
- Design of methods to achieve the changeover.
- Training of the staff in the changeover procedure and evaluation of change over method.

SYSTEM MAINTENANCE

9. SYSTEM MAINTENANCE

Maintenance is making adaptation of the software for external changes (requirements changes or enhancements) and internal changes (fixing bugs). When changes are made during the maintenance phase all preceding steps of the model must be revisited.

There are 3 types of maintenance:

- Corrective (Fixing bugs/errors)
- Adaptive (Updates due to environment changes)
- Perfective (Enhancements, requirements changes)

Maintenance is enigma of the system development. The definition of the software maintenance can be given describing four activities that are undertaken after the program is released for use. The maintenance activity occurs since it is unreasonable to assume that software testing will uncover all in a large system. The second activity that contributes the definition of maintenance occurs since rapid changes are encountered in every aspect of computing. The third activity involves recommendation for new capabilities, modification to the existing functions and general enhancements when the software is used. The fourth maintenance activity occurs when software is changed to improve future maintainability or reliability.

FUTURE ENHANCEMENT

10. FUTURE ENHANCEMENT

AI-Powered Personalization: Implement advanced AI algorithms to analyze user behavior, providing highly personalized content recommendations based on individual preferences and viewing history. Dynamic Ad Insertion: Utilize dynamic ad insertion technology for targeted and non-disruptive advertisements, improving the overall user experience while maintaining a revenue stream. Global Accessibility: Work on overcoming geographic restrictions by negotiating international licensing agreements, providing a more inclusive experience for users worldwide. Multi-Language Support: Expand language options for content and interface, catering to a diverse audience and making the platform more accessible globally. Manual Quality Selection: Provide users with the option to manually select the video quality, giving them control over their streaming experience and catering to varying preferences and network conditions. Granular Rating Categories: Introduce more granular rating categories, allowing users to provide scores for specific aspects such as plot, acting, cinematography, and soundtrack. This offers a more nuanced evaluation.

CONCLUSION

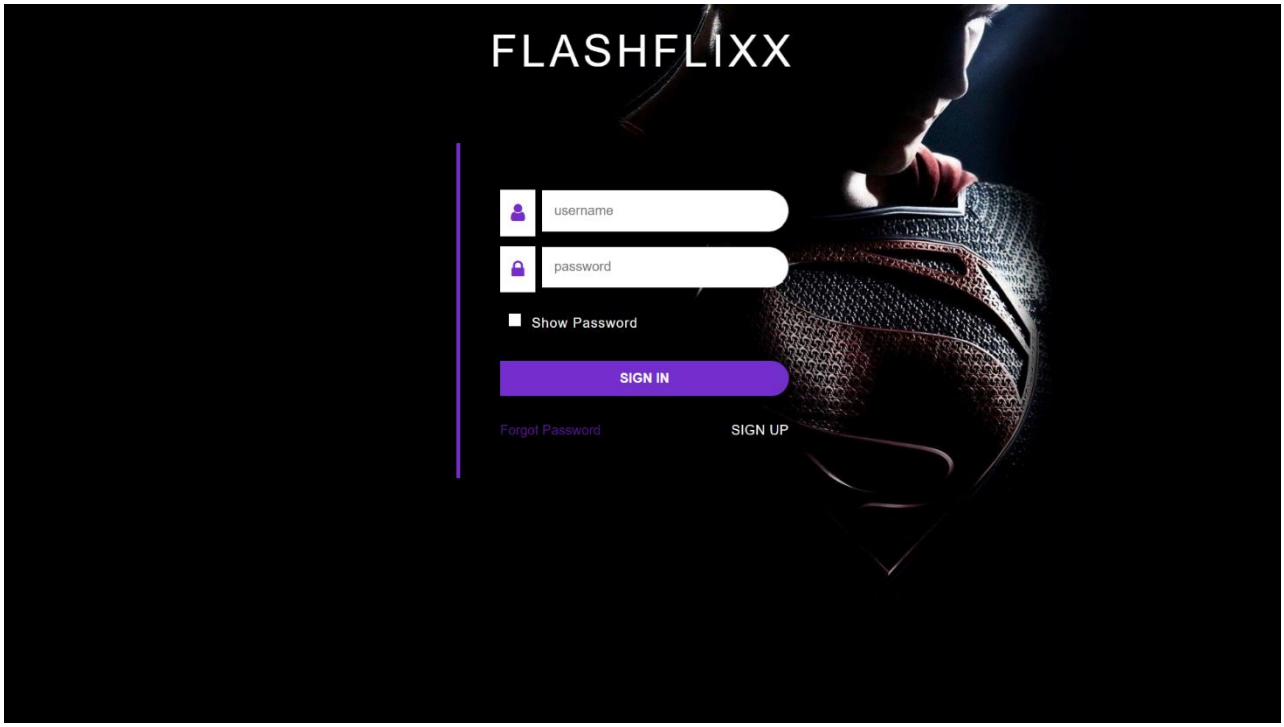
11. CONCLUSION

The project entitled “FLASHFLIXX” is a free online movie streaming website which offers an accessible and convenient platform for users to enjoy a diverse range of content. By incorporating user-friendly features such as a well-designed interface, personalized profiles, and a robust content library, the platform can enhance the overall viewing experience. It's essential to prioritize security measures, legal compliance, and regular updates to ensure user trust and platform reliability. Overall, a thoughtfully designed and well-executed free streaming service has the potential to engage users, build a community, and provide a satisfying and enjoyable entertainment experience.

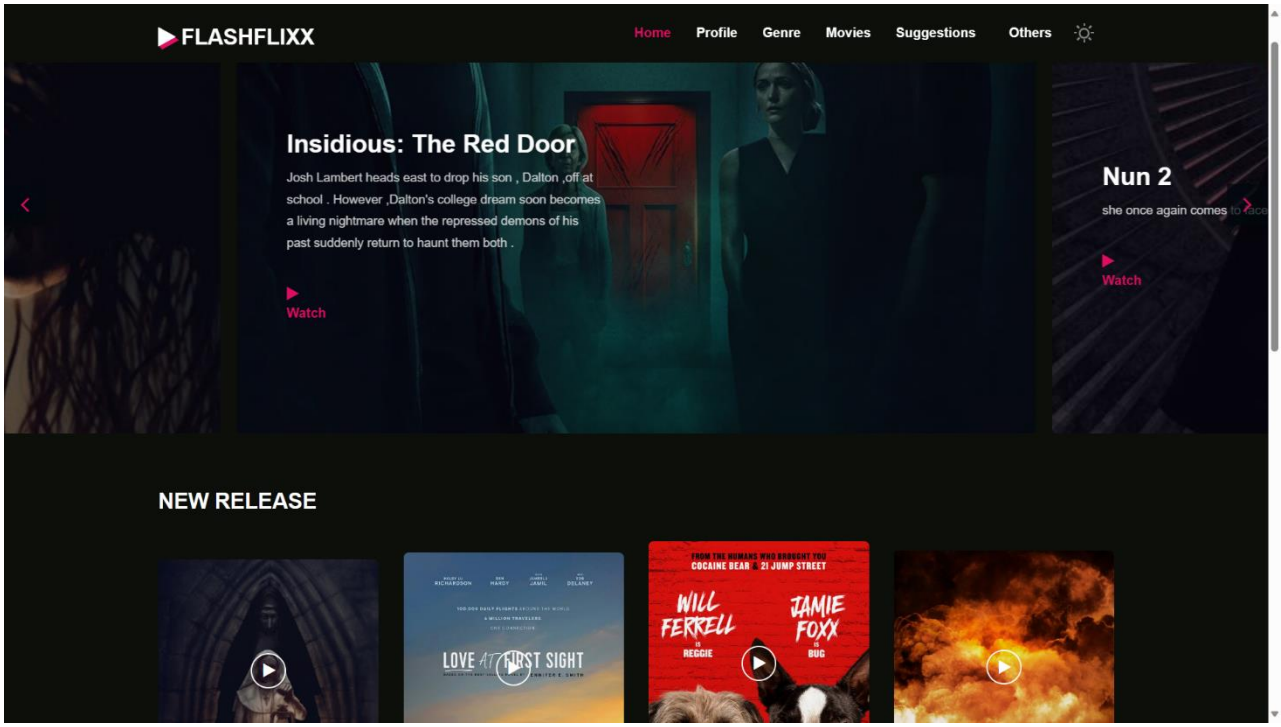
The success of a free online movie streaming website hinges on a combination of user-centric design, innovative features and a commitment to adaptability. By continuously evolving to meet user expectations and industry trends, such a platform can thrive in the competitive landscape of digital entertainment.

APPENDIX

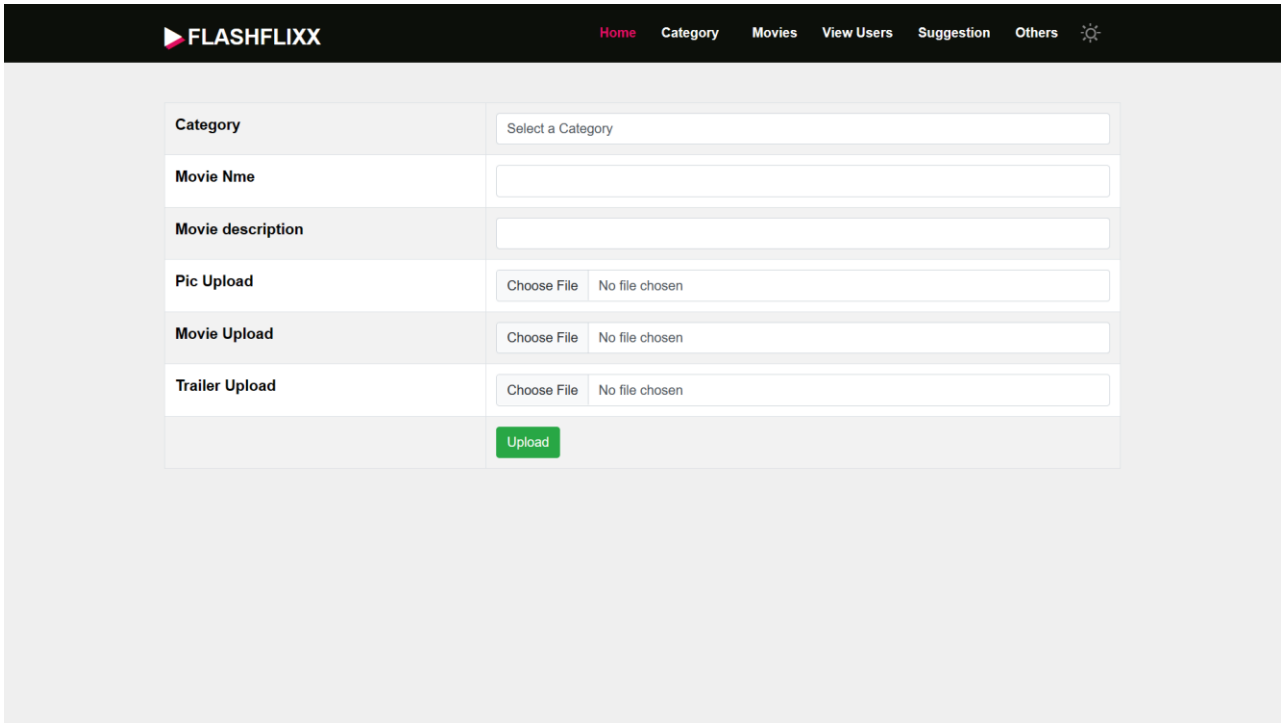
Login



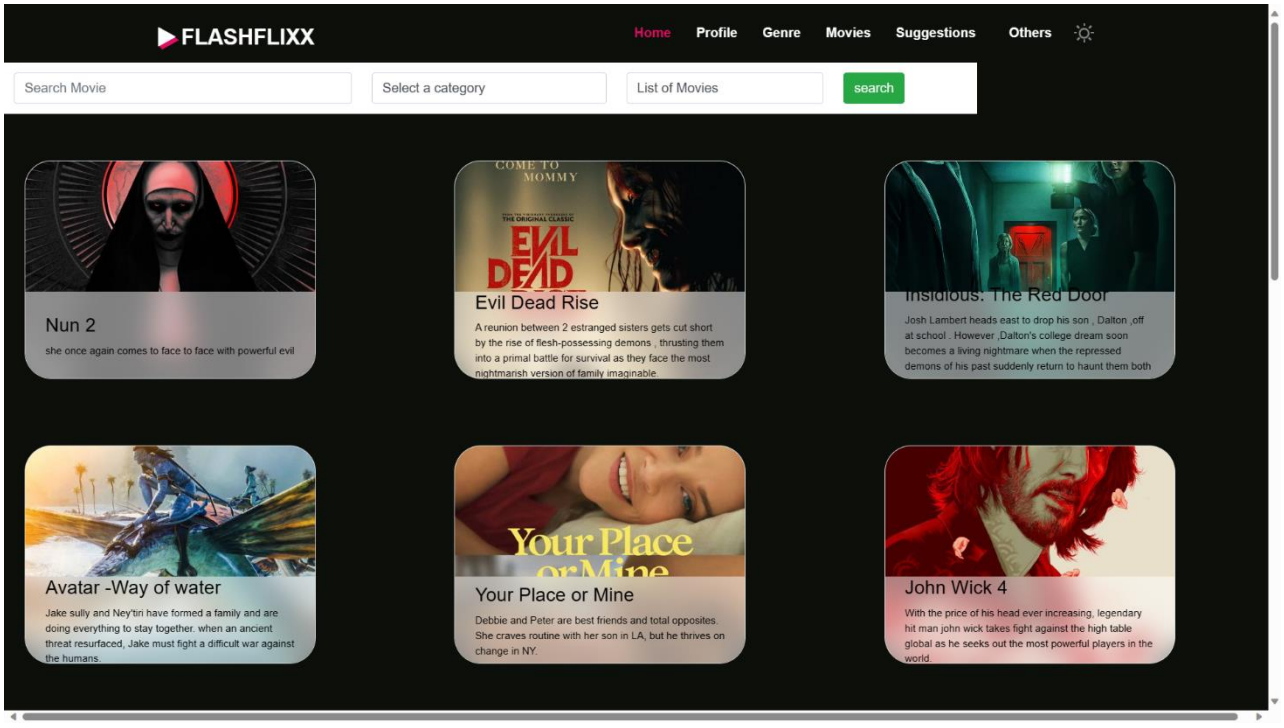
Home page



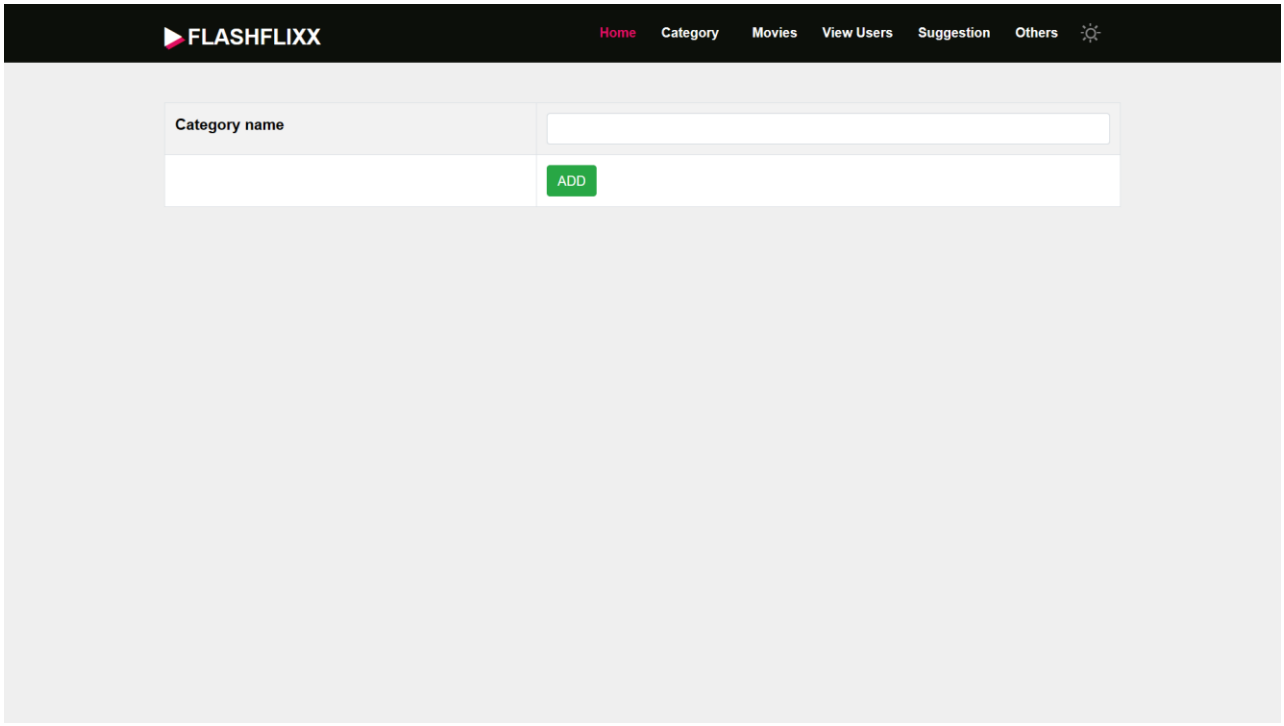
Add movie



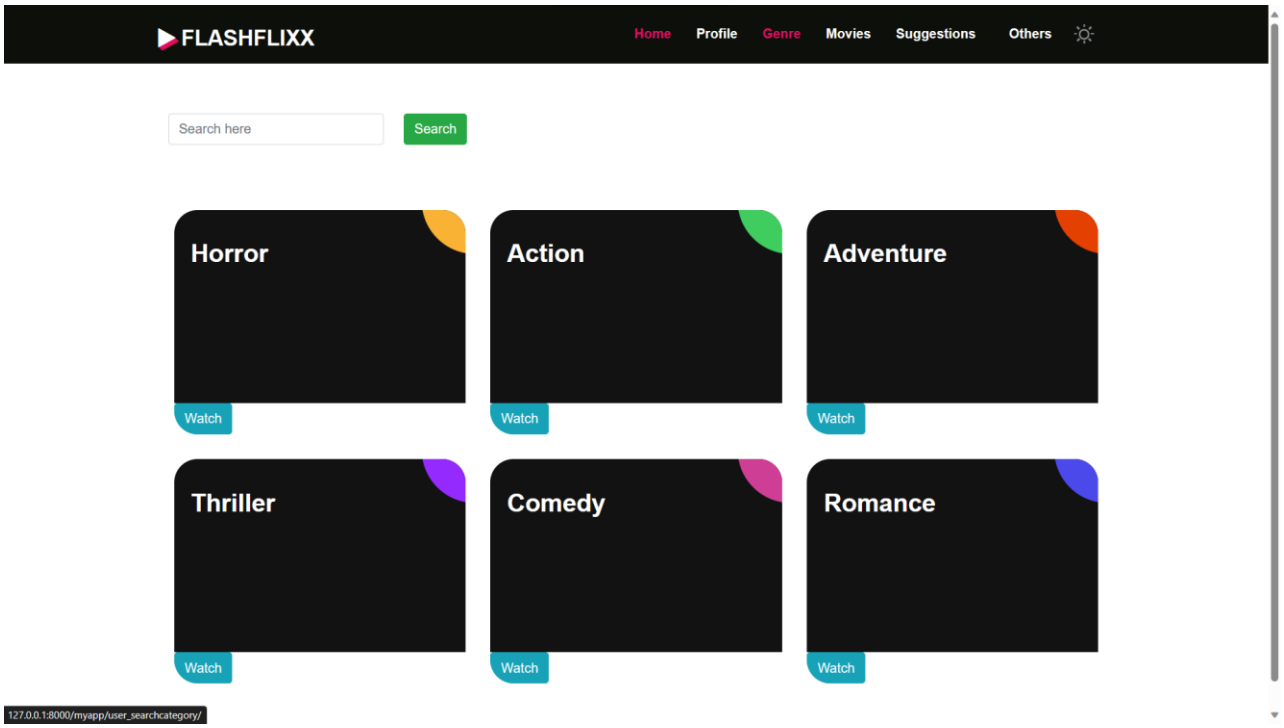
View movie



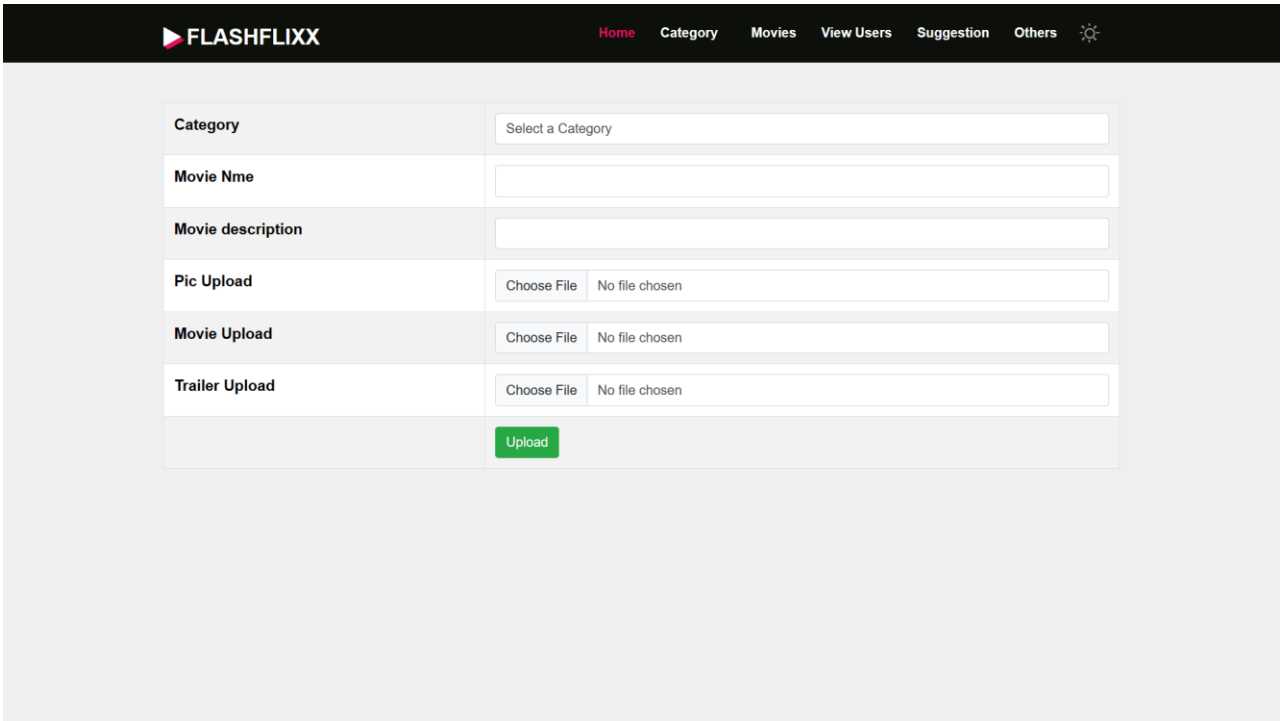
Add category



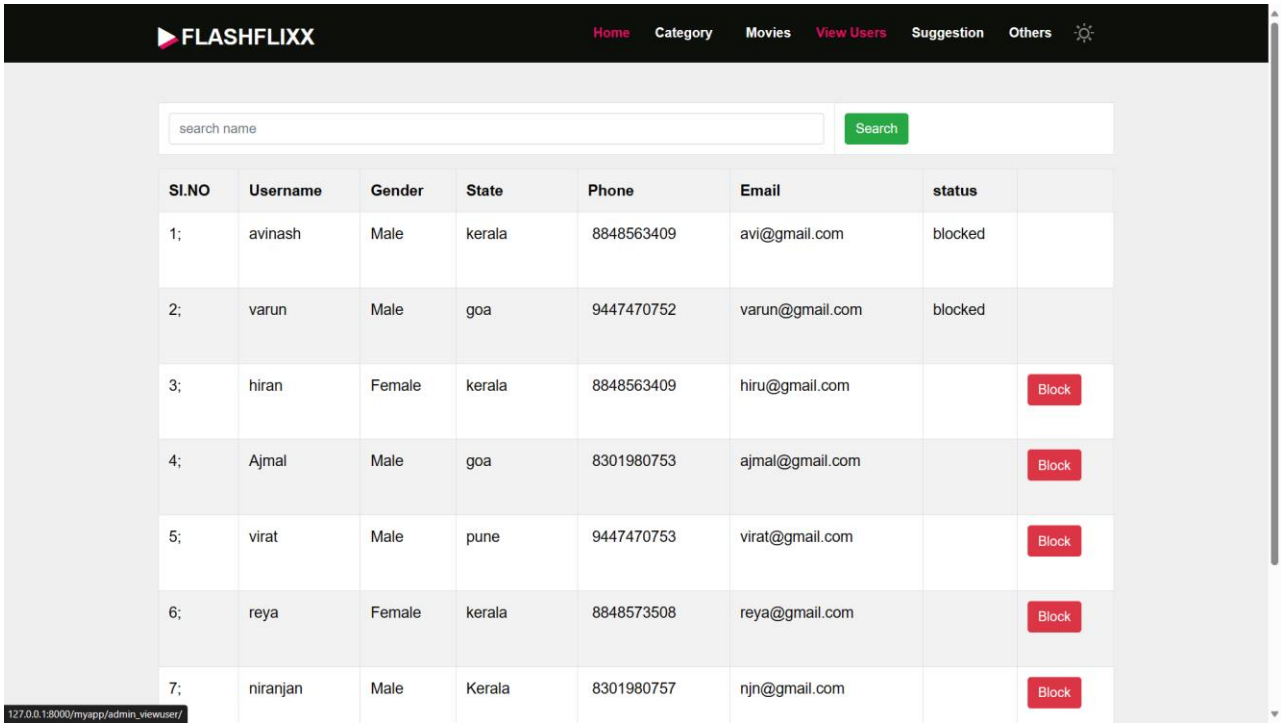
View category



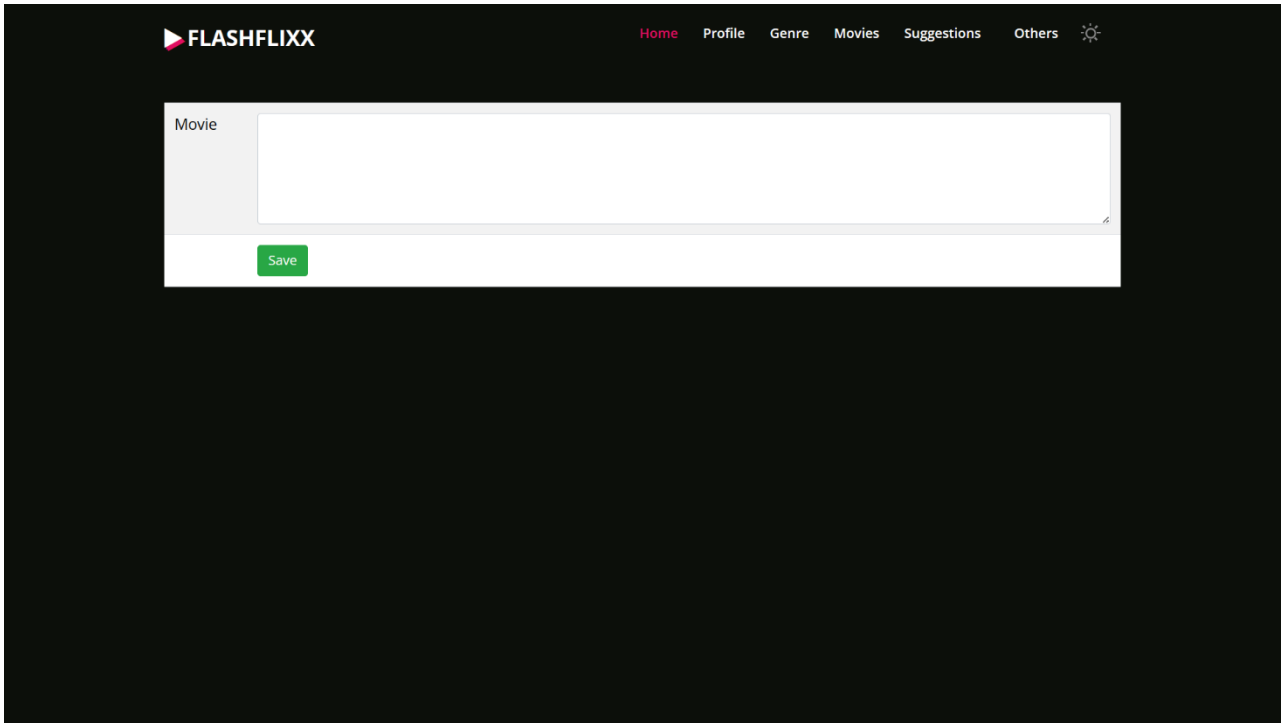
View profile



View users



Add suggestions



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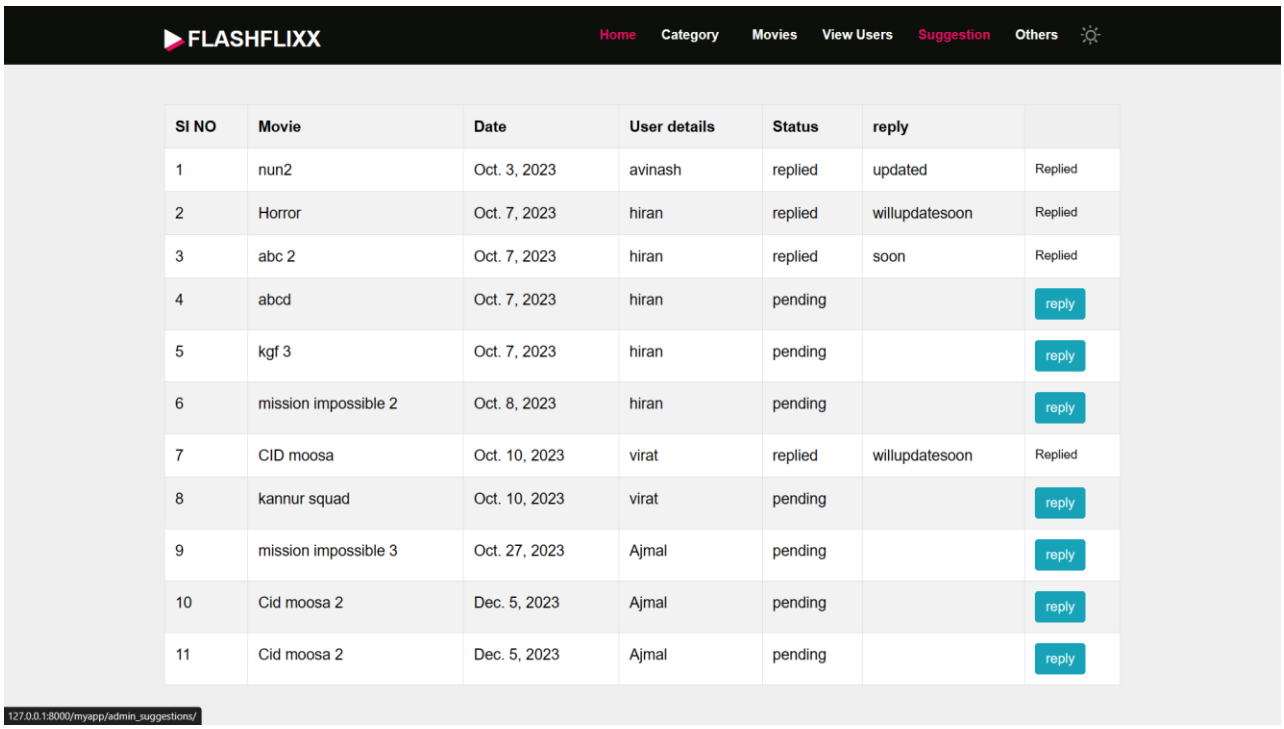

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[2] MySQL in a Nutshell-Russell J. T. Dyer

[3] Mastering Django-Nigel George

[4] Code with Python-S. Chand's

[5] Mastering PyCharm-Quazi Nafiul Islam