[Comic-Collection]

ON

Submitted in partial fulfillment of the requirements
of the degree of

Bachelor of Engineering
(Information Technology)

By

Under the guidance of

Dipti Karani

Department of Information Technology

VIVEKANAND EDUCATION SOCIETY'S INSTITUTE OF TECHNOLOGY, Chembur, Mumbai 400074

(An Autonomous Institute, Affiliated to University of Mumbai)

Declaration

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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(**Signature)**

Aditi Taksale 58

Abstract

Abstracts contain most of the following kinds of information in brief form. The body of your paper will, of course, develop and explain these ideas much more fully. As you will see in the samples below, the proportion of your abstract that you devote to each kind of information—and the sequence of that information—will vary, depending on the nature and genre of the paper that you are summarizing in your abstract. And in some cases, some of this information is implied, rather than stated explicitly. The Publication Manual of the American Psychological Association, which is widely used in the social sciences, gives specific guidelines for what to include in the abstract for different kinds of papers—for empirical studies, literature reviews or meta-analyses, theoretical papers, methodological papers, and case studies.

Keywords-*literature, theoretical, methodological, include, Publication*

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CHAPTER: 1 INTRODUCTION

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Keywords-*literature, theoretical, methodological, include, Publication*

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CHAPTER: 1 INTRODUCTION

The Idea Submission Platform is a full-stack web application developed to provide users with an organized and interactive space to submit, explore, and engage with innovative ideas. This project brings together modern web technologies— Flask for a lightweight and efficient backend, MongoDB for scalable and flexible data management, and HTML, CSS, JavaScript (with Bootstrap and AJAX) for a responsive and intuitive frontend experience.

The platform enables users to:

- Register and log in securely to manage their submitted ideas.
- Submit new ideas with details such as title, description, category tags, and more.
- Comment on and upvote others' ideas, fostering interaction and feedback.
- Browse, filter, and explore submitted ideas based on categories and popularity.
- Maintain a personalized user profile for managing all their idea-related activities.

The application follows a modular architecture, ensuring easy scalability and code maintainability. Flask APIs manage all essential CRUD operations, while MongoDB offers schema-less data storage to accommodate diverse idea entries. The user interface is designed to be clean, dynamic, and mobile-friendly, ensuring a consistent experience across devices.

This project not only highlights seamless integration between backend and frontend technologies but also demonstrates how full-stack development can be utilized to build impactful, community-driven platforms focused on collaboration and innovation.

Chapter 2

Design and Implementation

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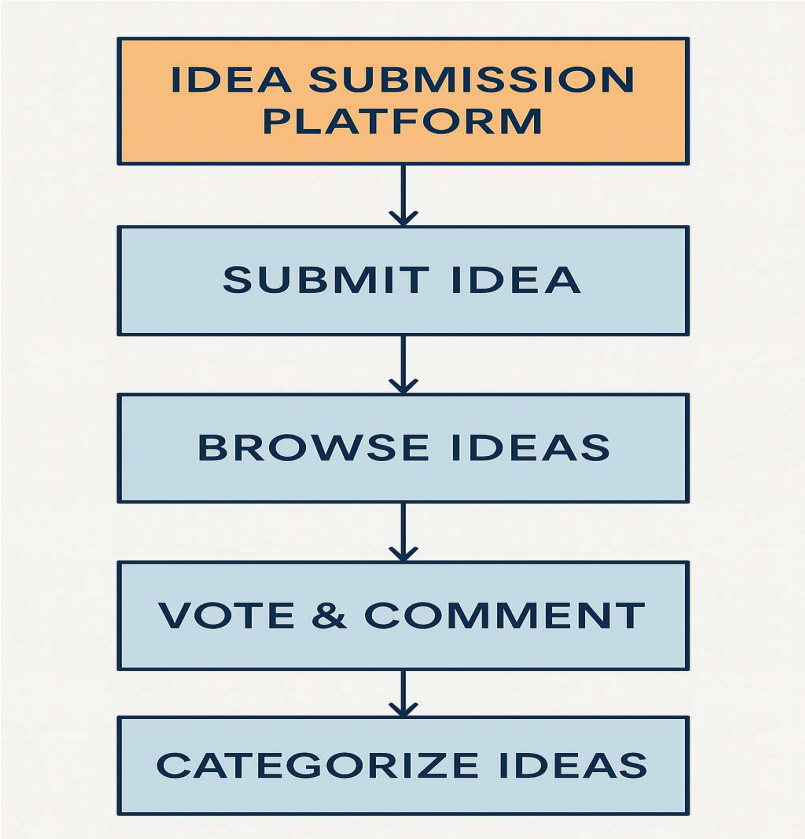
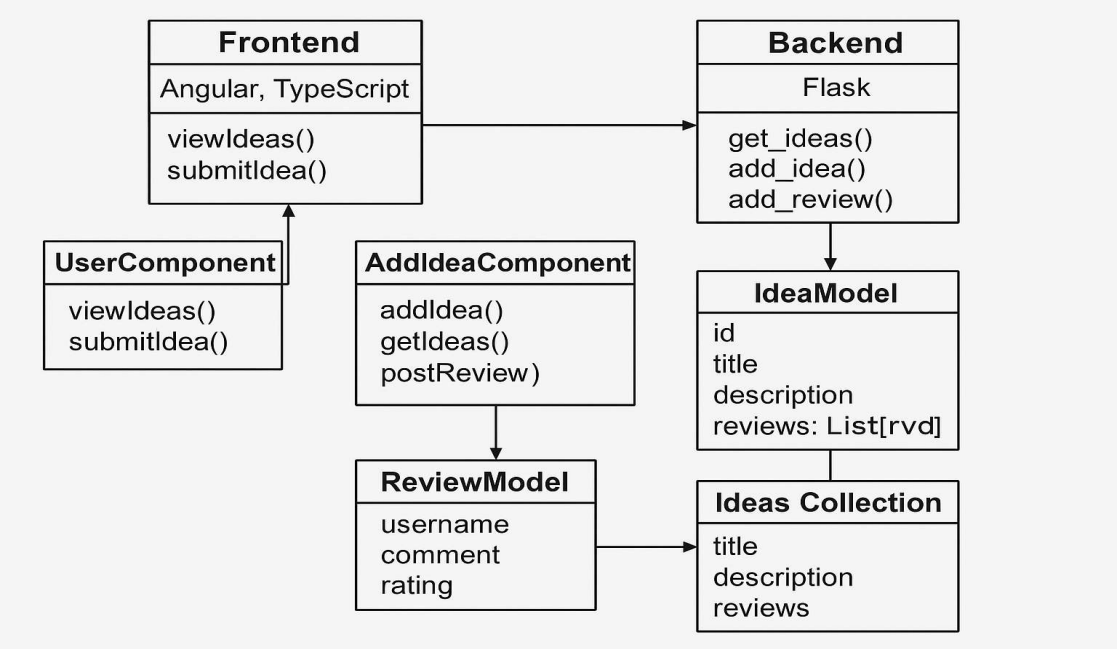
2.1 Block Diagram



This project follows a full-stack architecture using **Angular**, **Flask**, and **MongoDB**.

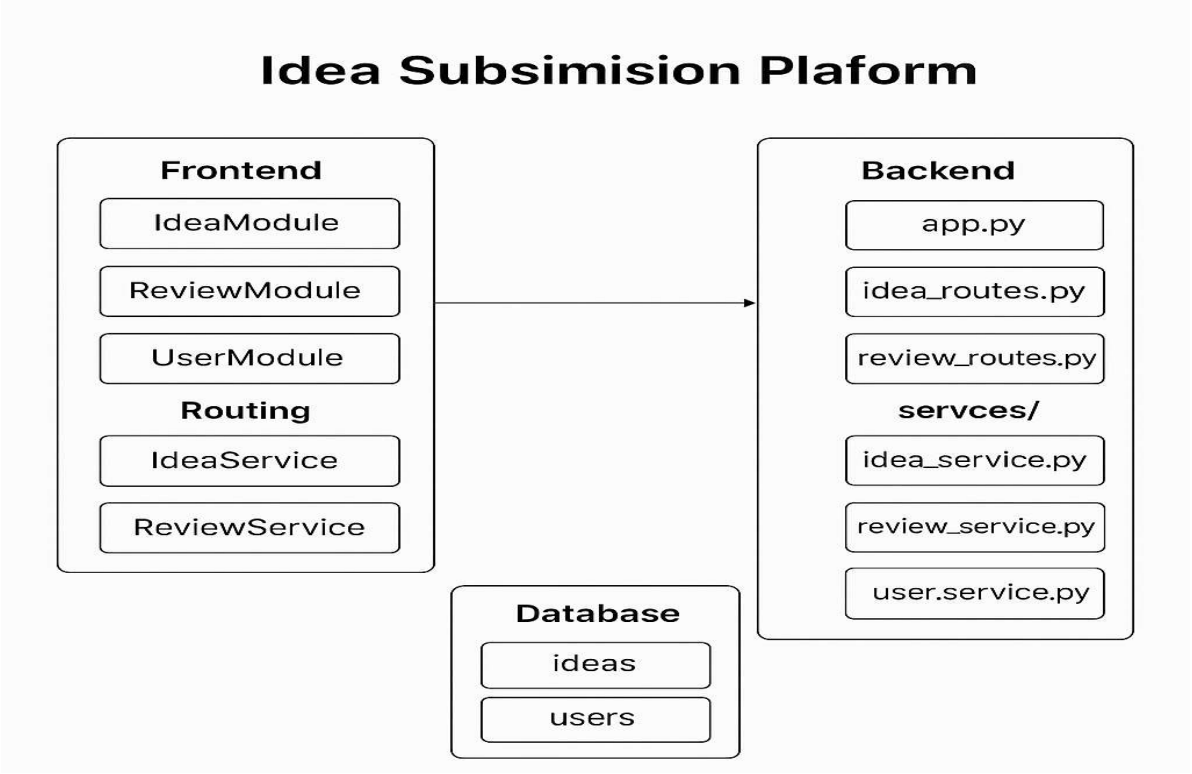
- **Angular** (Frontend): Handles user interactions like adding comics and posting reviews.
- **Flask** (Backend): Acts as an API server to manage data flow and perform **CRUD operations** (Create, Read, Update, Delete).
- **MongoDB** (Database): Stores comic details and user reviews in a flexible NoSQL format.

2.2 UML Diagram



1. Frontend (HTML/CSS/JavaScript + AJAX)	2. Backend (Flask)
• **UserComponent** • viewIdeas() – Display all submitted ideas • submitIdea() – Submit a new idea with details • **ProfileComponent** • viewUserIdeas() – Show ideas submitted by the • **IdeaService (AJAX-based)** • getIdeas() – Fetch all ideas from the backend • postIdea() – Send a new idea to the backend • postComment() – Submit a comment on an idea • voteIdea() – Upvote an idea ▪	• **IdeaModel** • id • title • description • category • author (username/email) • comments: List[CommentModel] • votes: int • **CommentModel** • username • text • timestamp ▪
3. Database (MongoDB) • **Ideas Collection** • title • description • category • author • votes • comments: [{ username, text, timestamp }] ○	

2.3 URL Diagram



- Frontend (Angular + TypeScript)
  - Components let users view, add comics, and submit reviews.
  - ComicService and ReviewService handle API calls.
- Backend (Flask)
  - comic_routes.py and review_routes.py define endpoints.
  - comic_service.py and review_service.py handle DB logic.
  - MongoDB stores comics and their reviews.
- Database (MongoDB)
  - One collection: comics, each with a list of embedded reviews.
- Flow:
  Angular UI → Flask API → MongoDB → Flask Response → Angular UI

2.4 Hardware Requirements

1. CPU: Quad-core processor or higher
2. RAM: 16 GB or higher Storage: SSD with at least 500 GB
3. Network: High-speed internet connection
4. User Devices: Any modern computer

2.5 Software Requirements

Languages: Angular, TypeScript, Flask, Mongodb

1. Frontend Development
Frameworks and Libraries:

- **Angular** – for building dynamic and component-based user interfaces
- **TypeScript** – for writing structured and scalable frontend logic
- **CSS** – for custom styling and layout design
- **Flask** – used as a lightweight backend API server (also interacts with frontend in some parts)

Tools:

- **Visual Studio Code** – code editor for development
- **Node.js** – for managing Angular dependencies and build processes

---

2. Backend Development
Database Management System:

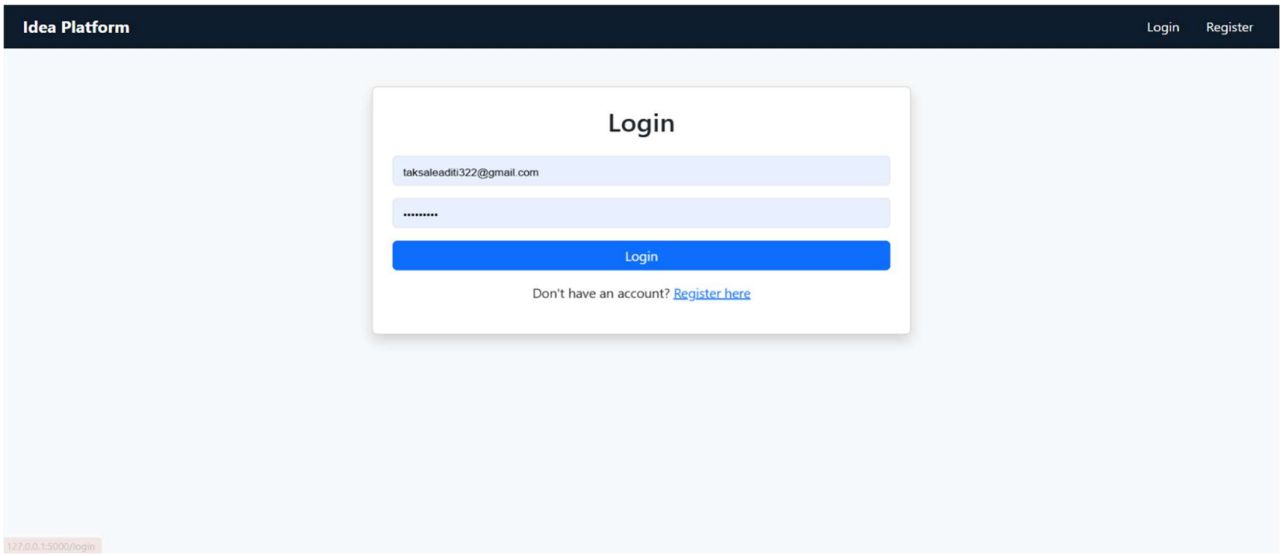
- **MongoDB** – a NoSQL database used to store comic data and user reviews in a flexible document-based format
- **Backend Framework**:
- **Flask** – handles RESTful API creation, manages data flow, and performs CRUD operations with MongoDB

3. Development and Hosting-
Hosting Platform:- Netlify

Chapter 3: Results

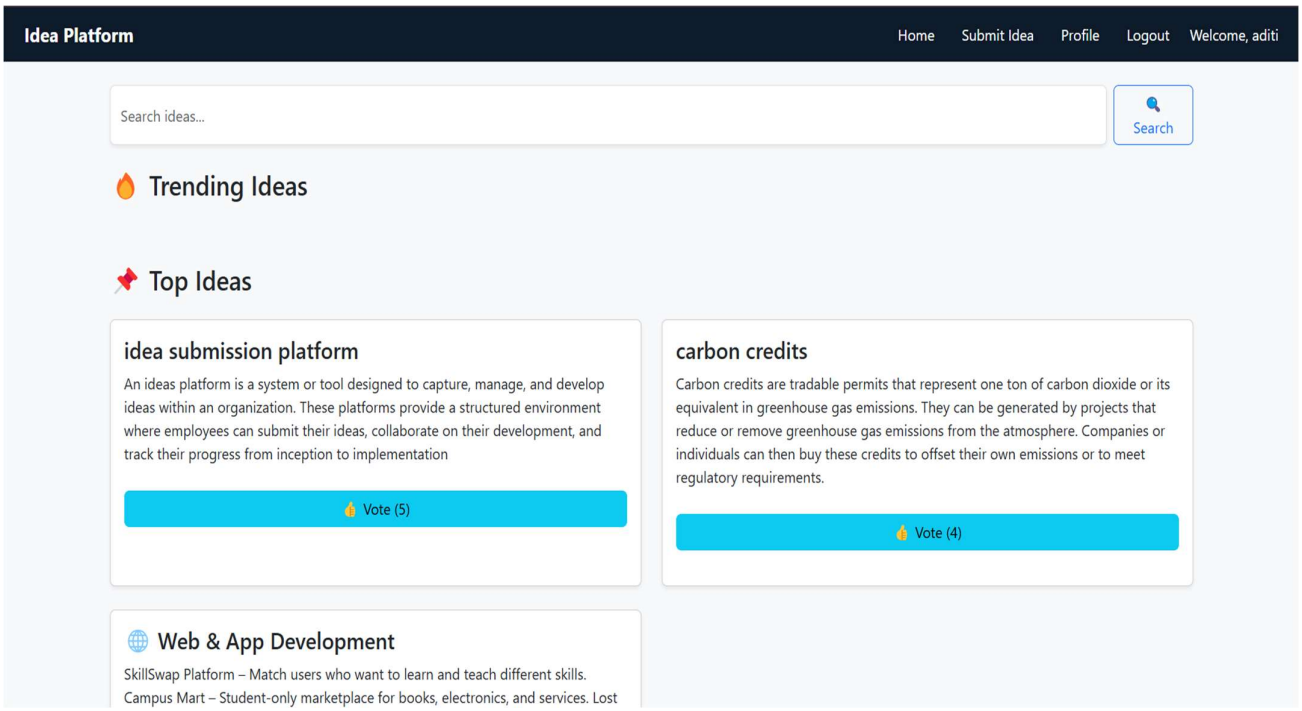
3.1 Results of Implementation:

LoginPage:

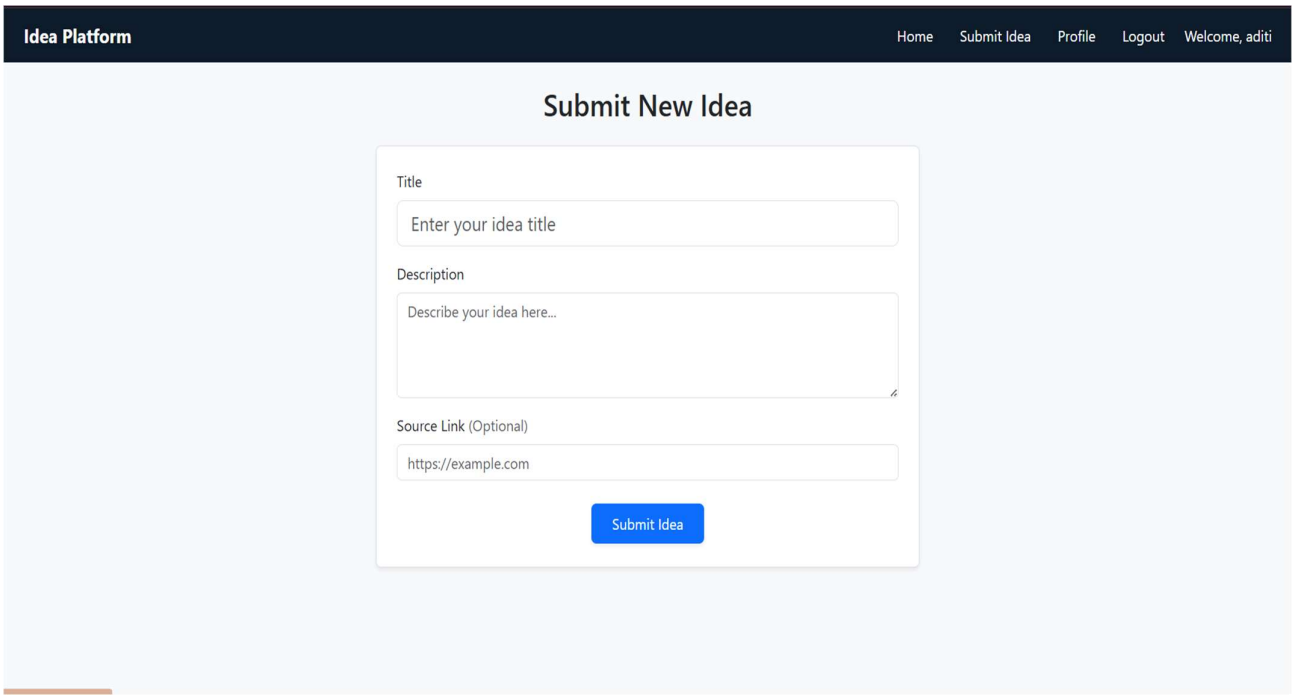


This is the login page where user can login using Google or email address

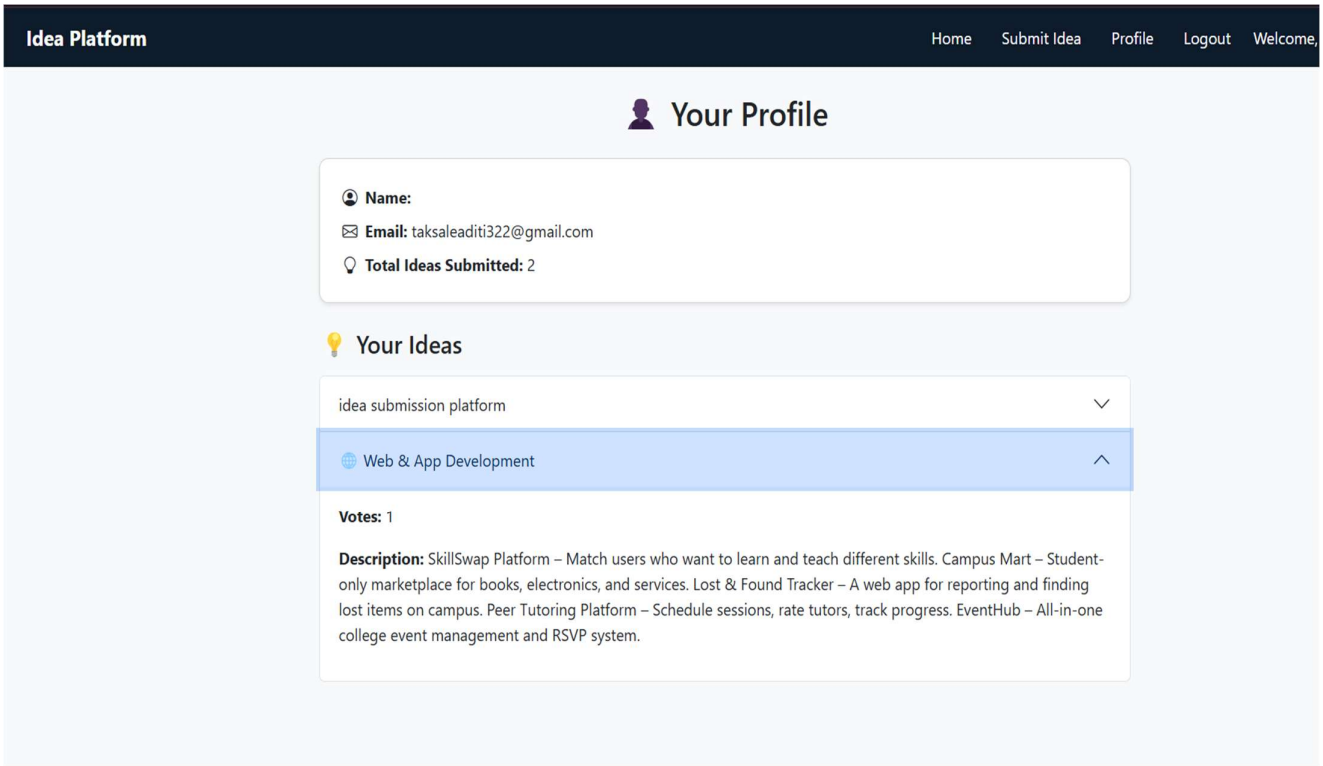
HOME Page:



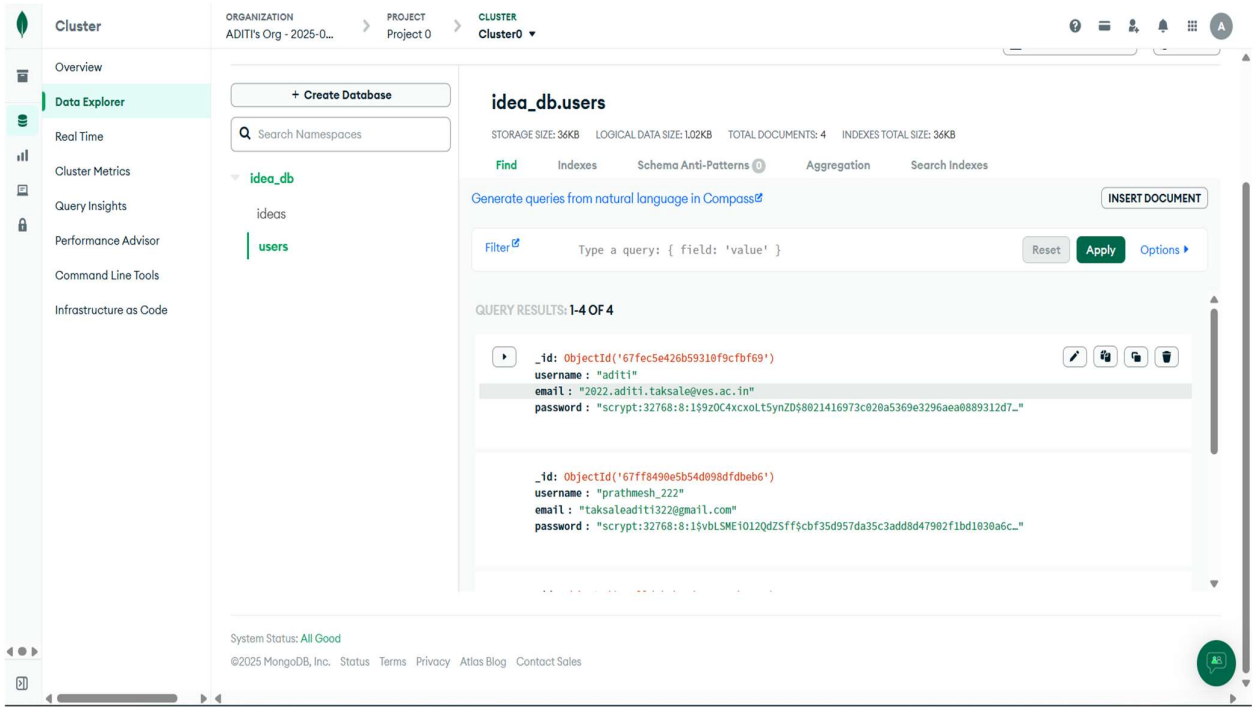
TO SUBMIT IDEA

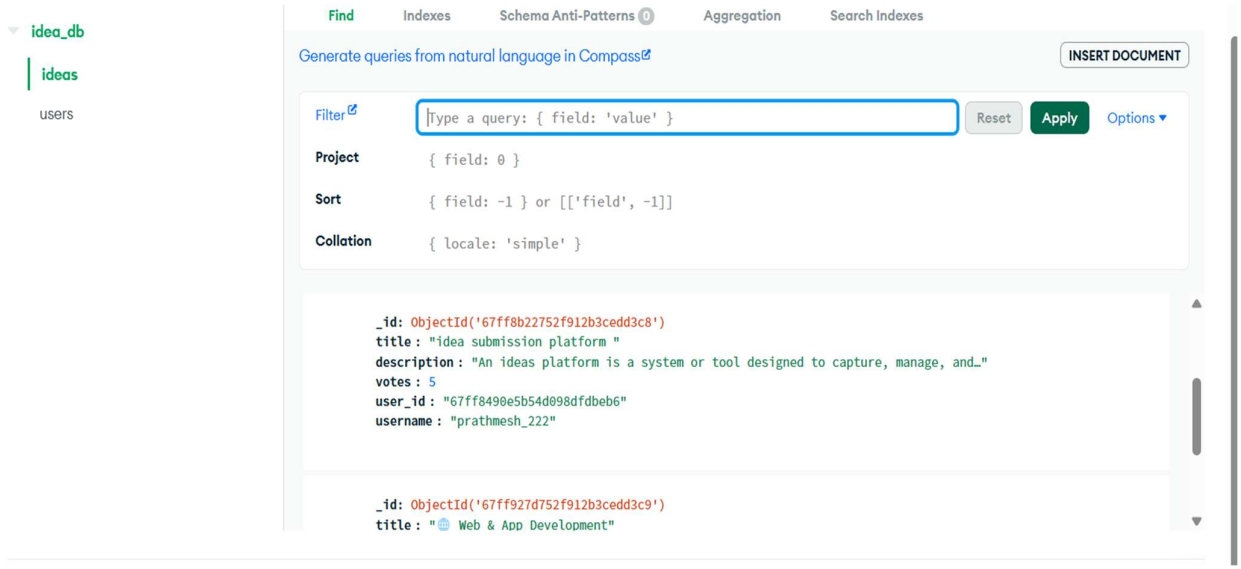


Profile page



In Backend(Using Mongodb):





Chapter 4 Conclusion

The Idea Submission Platform effectively integrates modern web technologies to provide an engaging and functional space for users to share, explore, and interact with innovative ideas. By utilizing Flask for backend development, MongoDB for flexible and scalable data storage, and a responsive frontend built with HTML, CSS, JavaScript, and AJAX, the platform offers a smooth and intuitive user experience.

This project showcases the capabilities of full-stack development by combining modular backend logic, dynamic client-side rendering, and efficient API communication. It emphasizes the importance of interactivity, collaboration, and accessibility in platforms designed to foster creativity and innovation. Additionally, it highlights the value of clean UI design, seamless data handling, and scalability in building modern web-based applications.

4.1 Reference:

[1] Angular: https://youtu.be/0LhBvp8qpro?si=NBads_TQ6T_wyoew
[2] Flask: https://youtu.be/oA8brF3w5XQ?si=sx1v6m9ZdxEIumzK
[3] Deploy: https://youtu.be/9srnyNC1e_o?si=2aRIo9OPAfKJyVpw
[4] Mongodb: https://youtu.be/J6mDkcqU_ZE?si=8v9Oka3fFse4UUUU

Chapter 2

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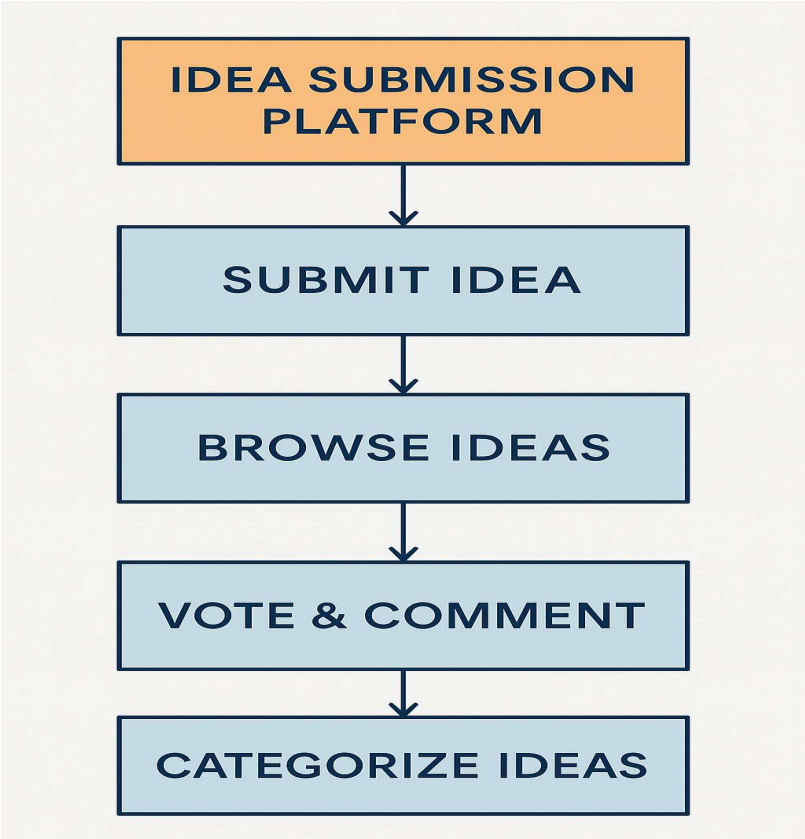
2.6 Block Diagram



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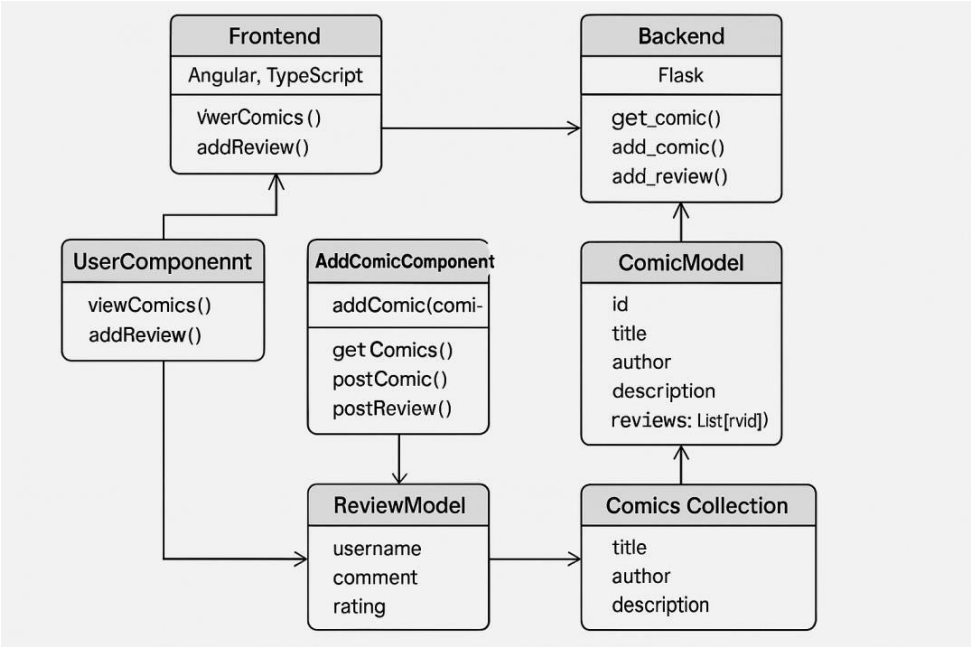

2. Frontend (Angular - TypeScript) • **UserComponent** ○ ▪ viewComics() ○ ▪ addReview() • **AddComicComponent** ○ ▪ addComic(comicData) • **ComicService** ○ ▪ getComics() ○ ▪ postComic() ○ ▪ postReview()	**3. Backend (Flask)** • **ComicModel** ○ ▪ id ○ ▪ title ○ ▪ author ○ ▪ description ○ ▪ reviews: List[ReviewModel] • **ReviewModel** ○ ▪ username ○ ▪ comment ○ ▪ rating
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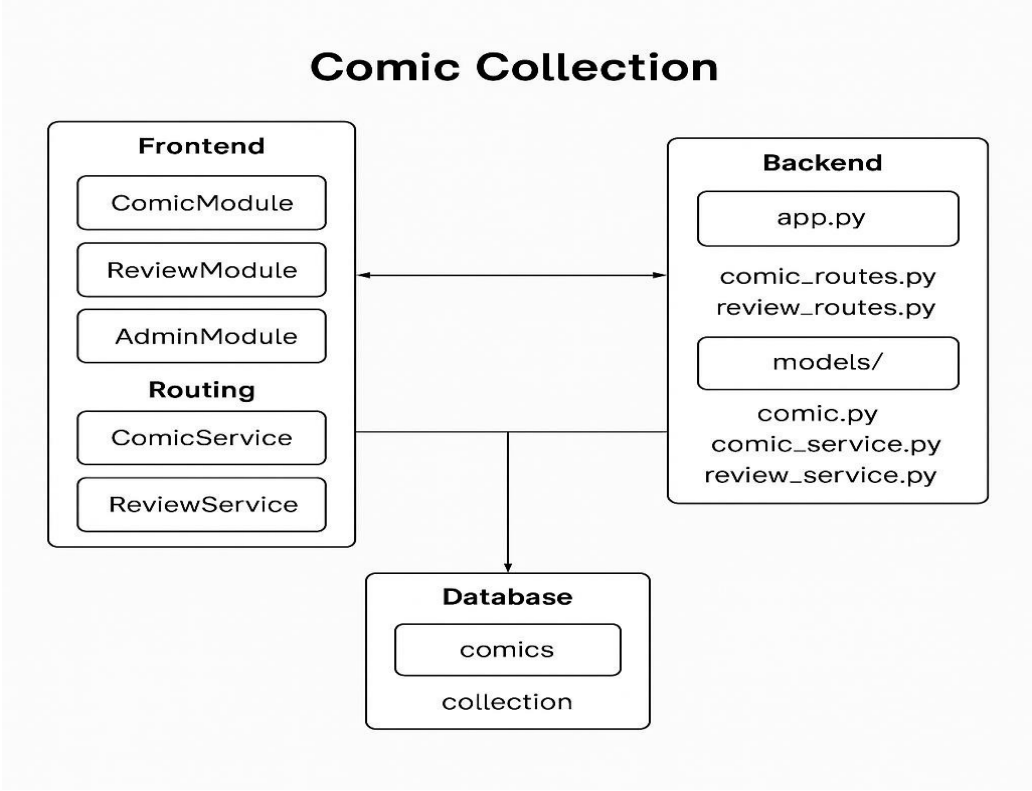
2.8 URL Diagram



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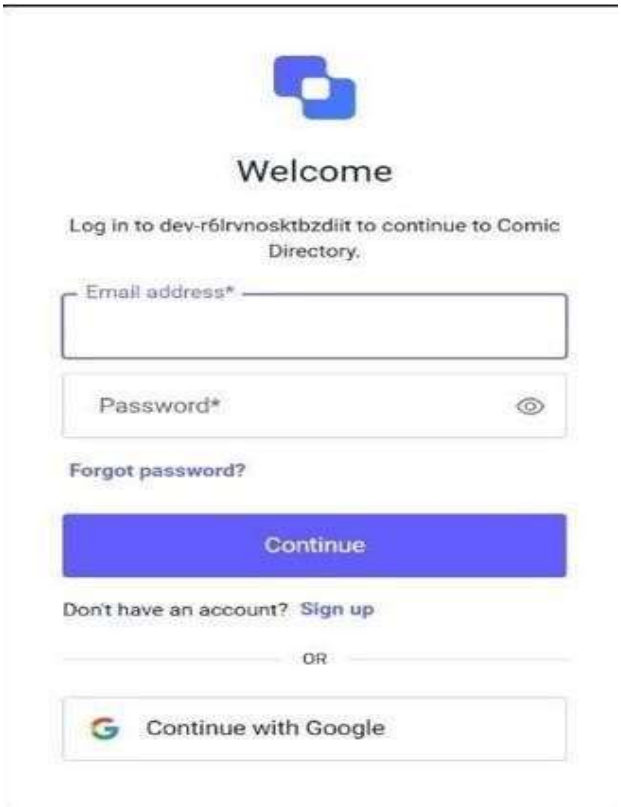
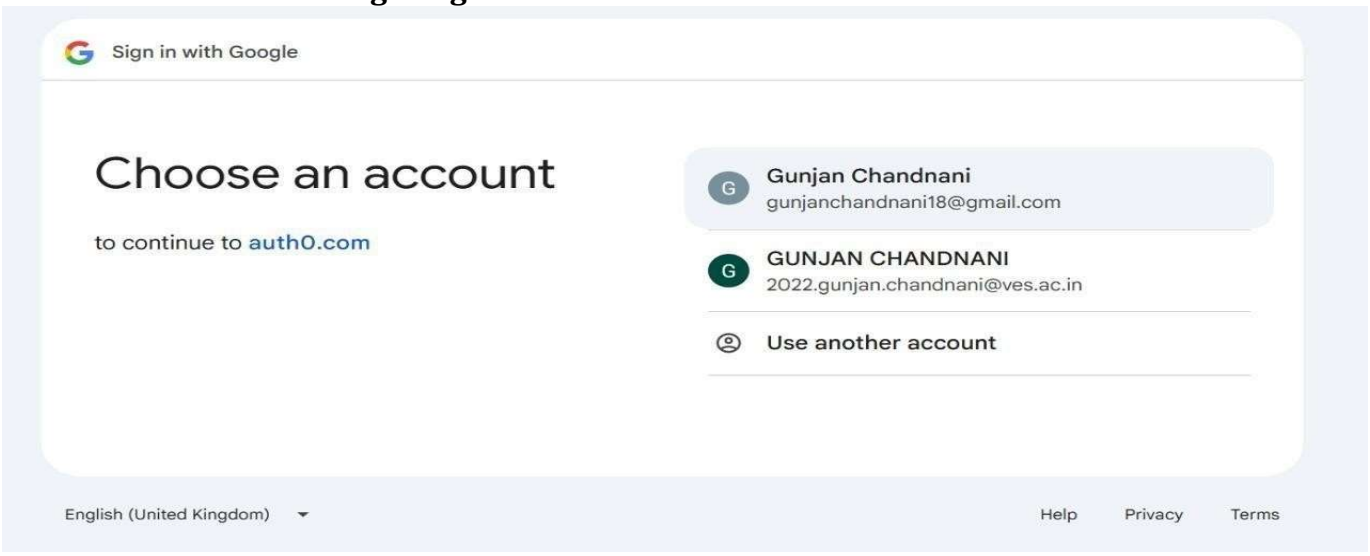
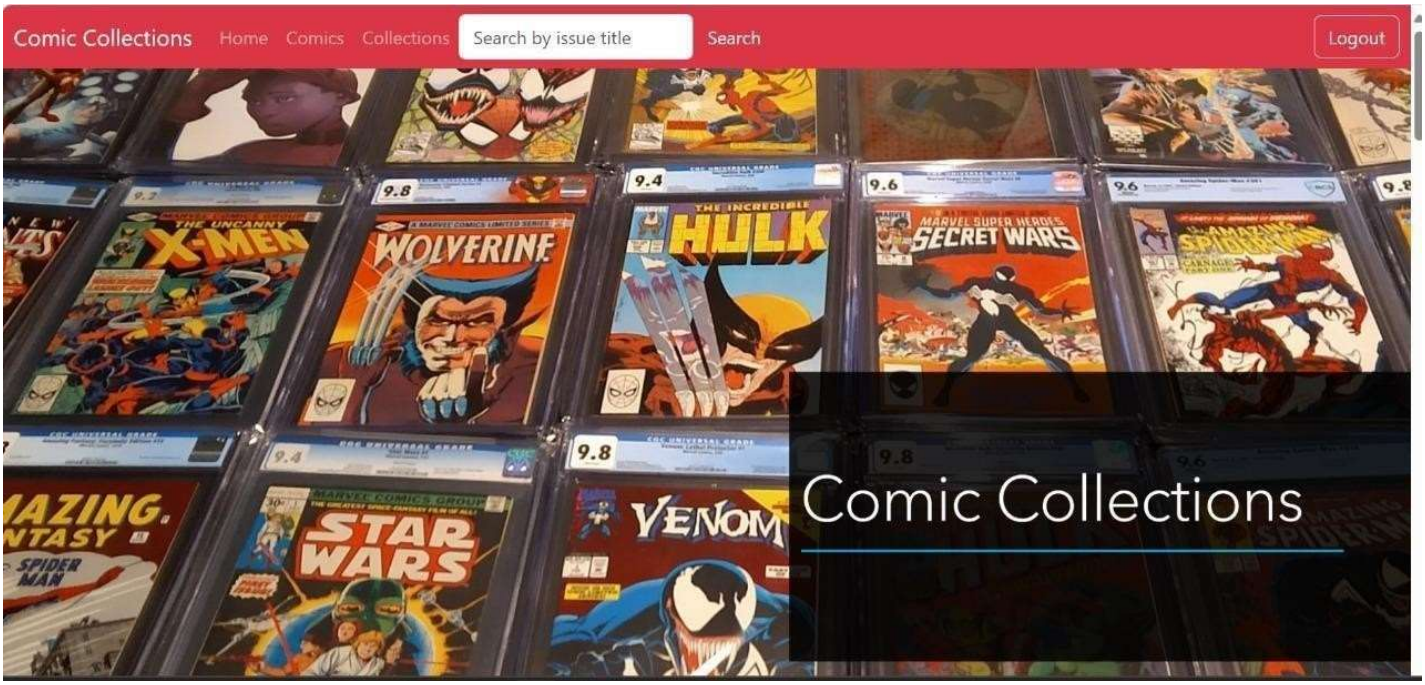


This is the login page where user can login using Google or email address

When User Continue using Google:

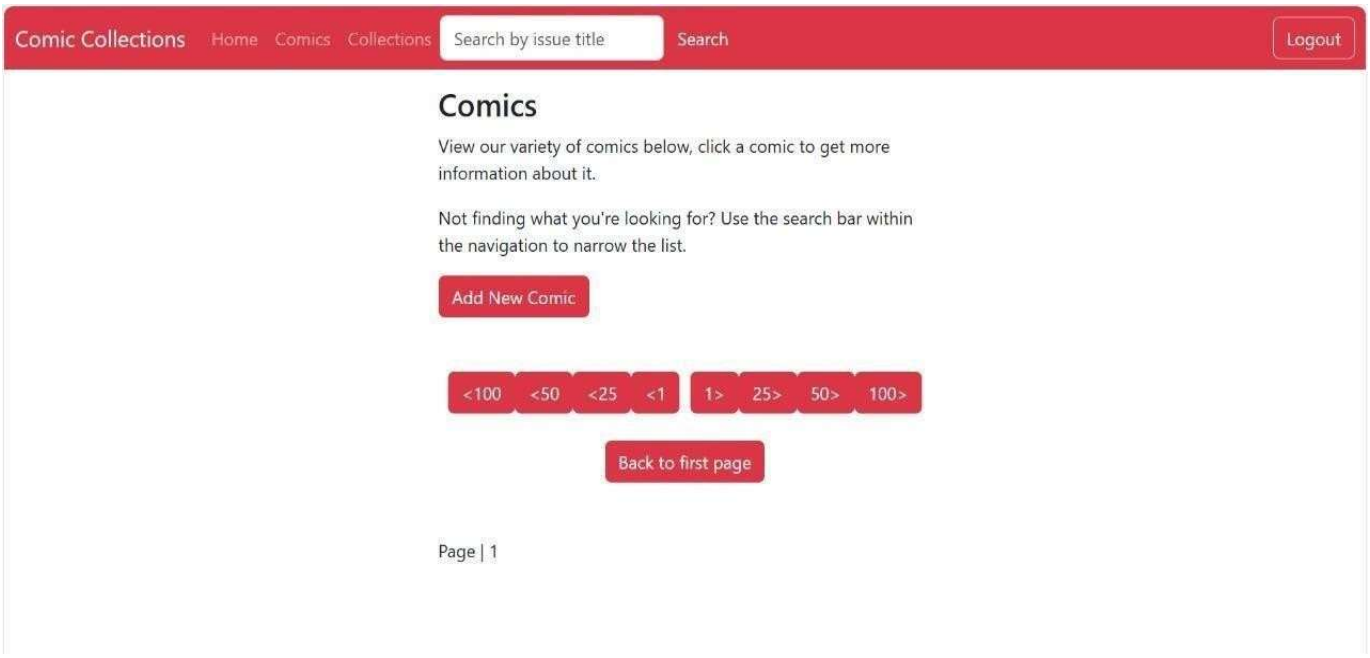


Home Page:

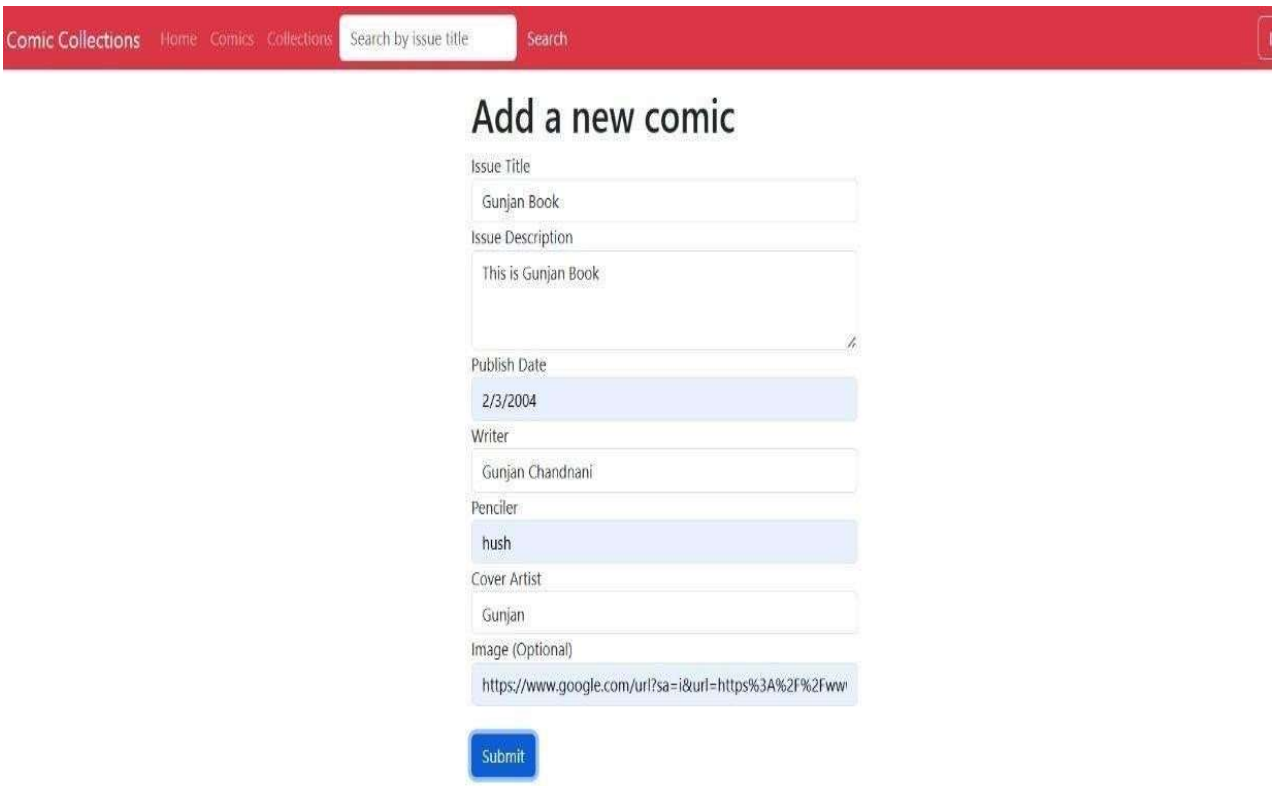


Collection Page:

Comic Page:



When User Click on Add New Comic:



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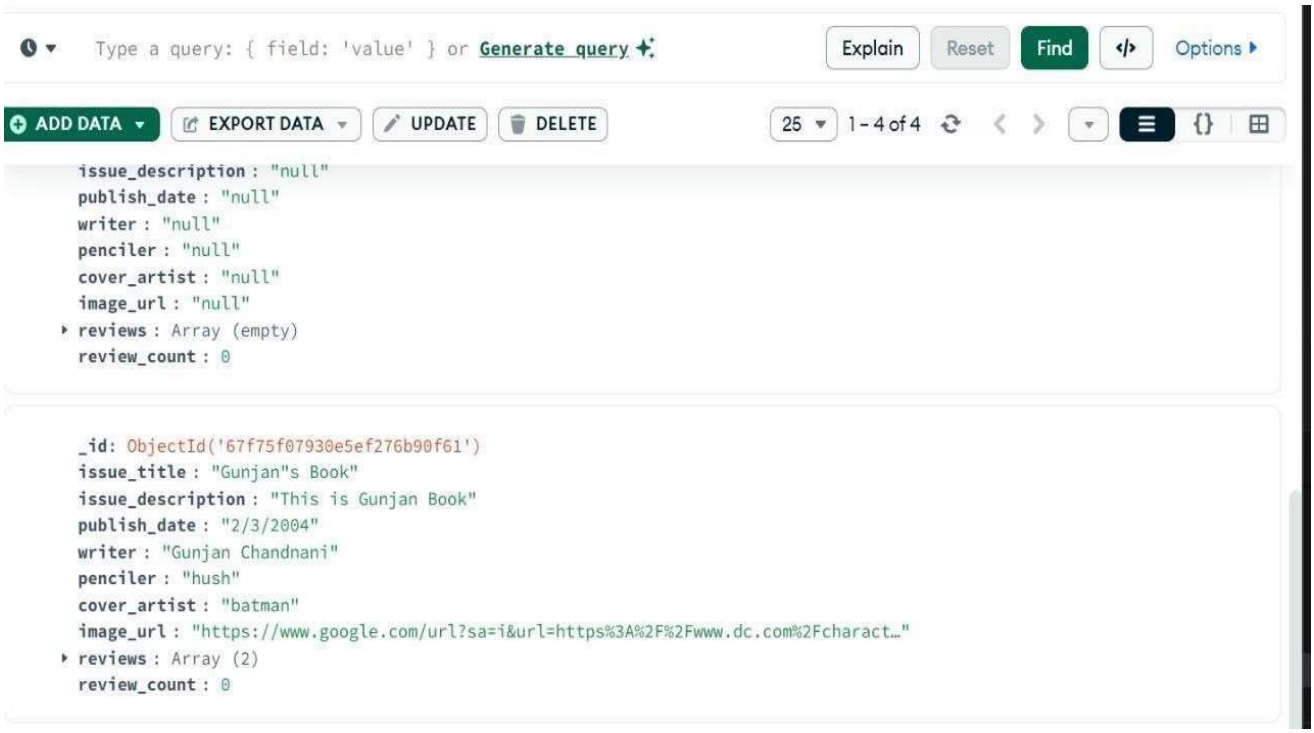
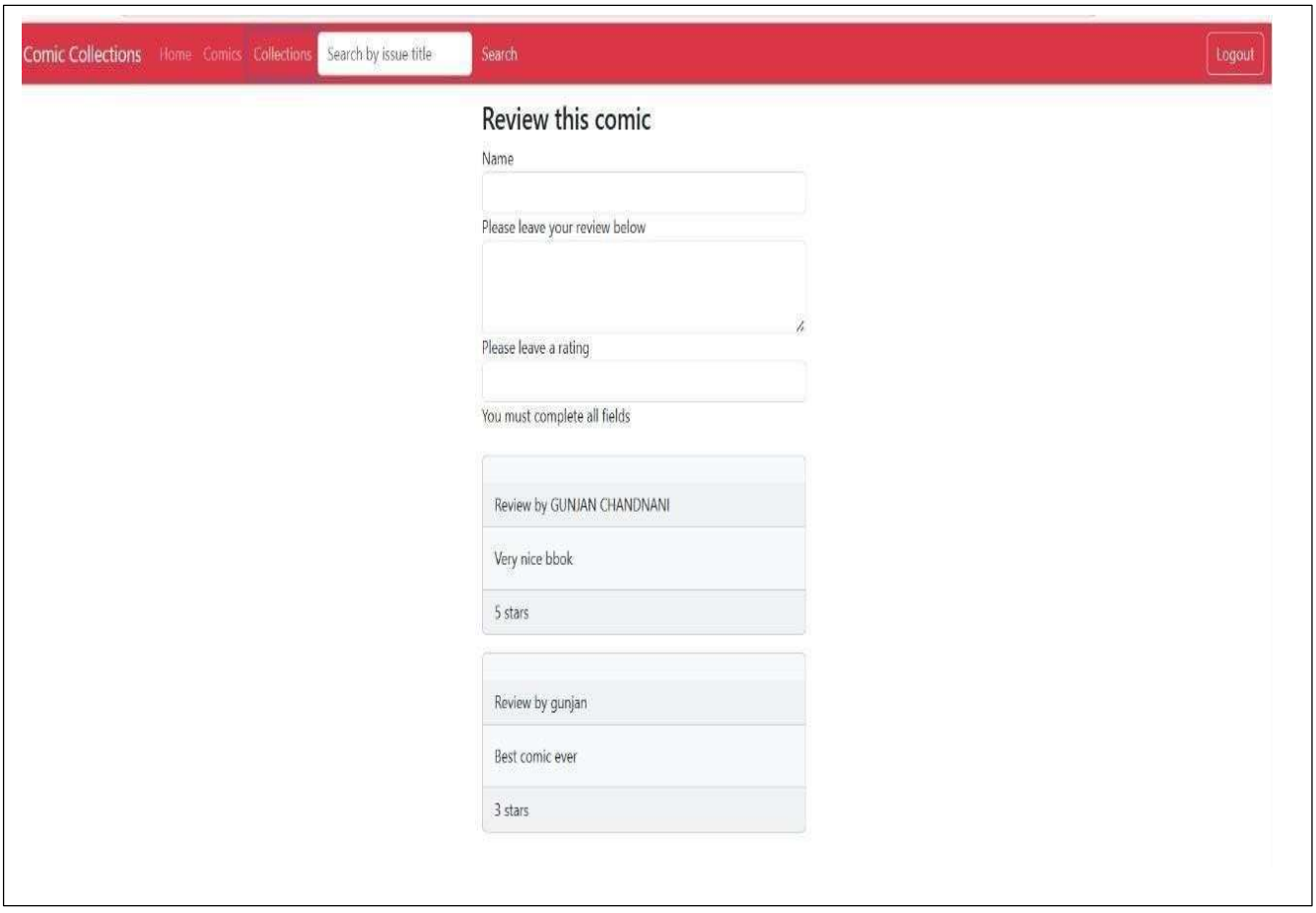
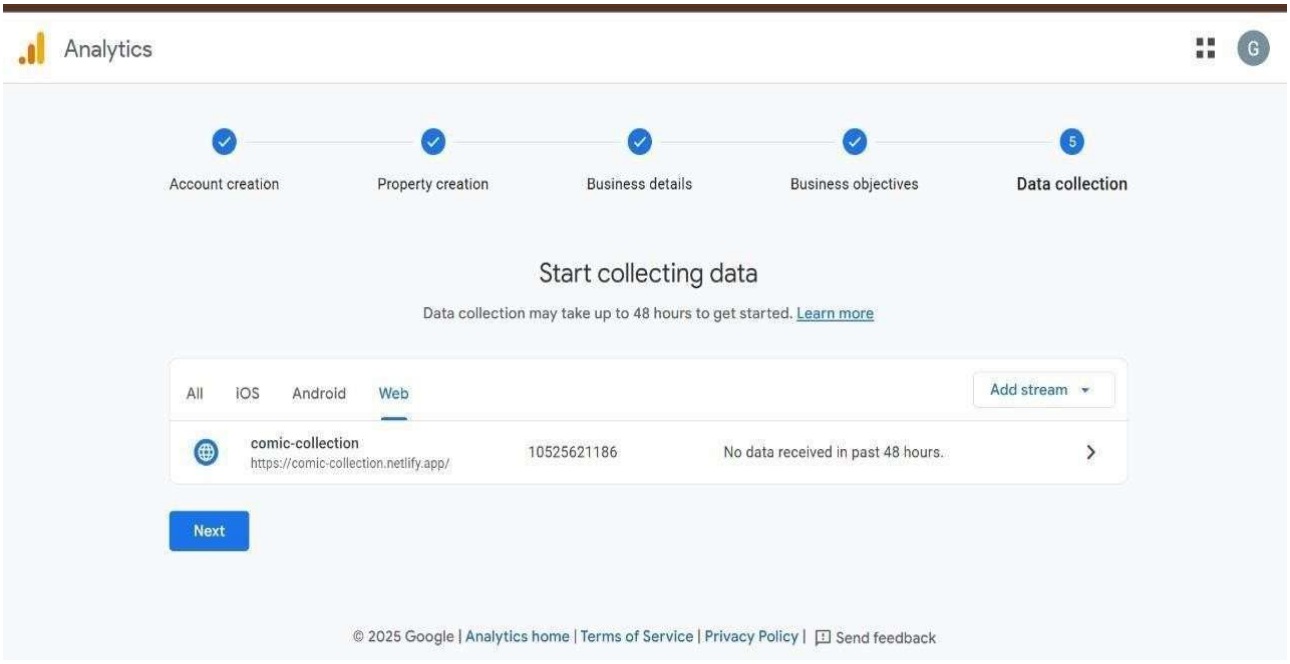
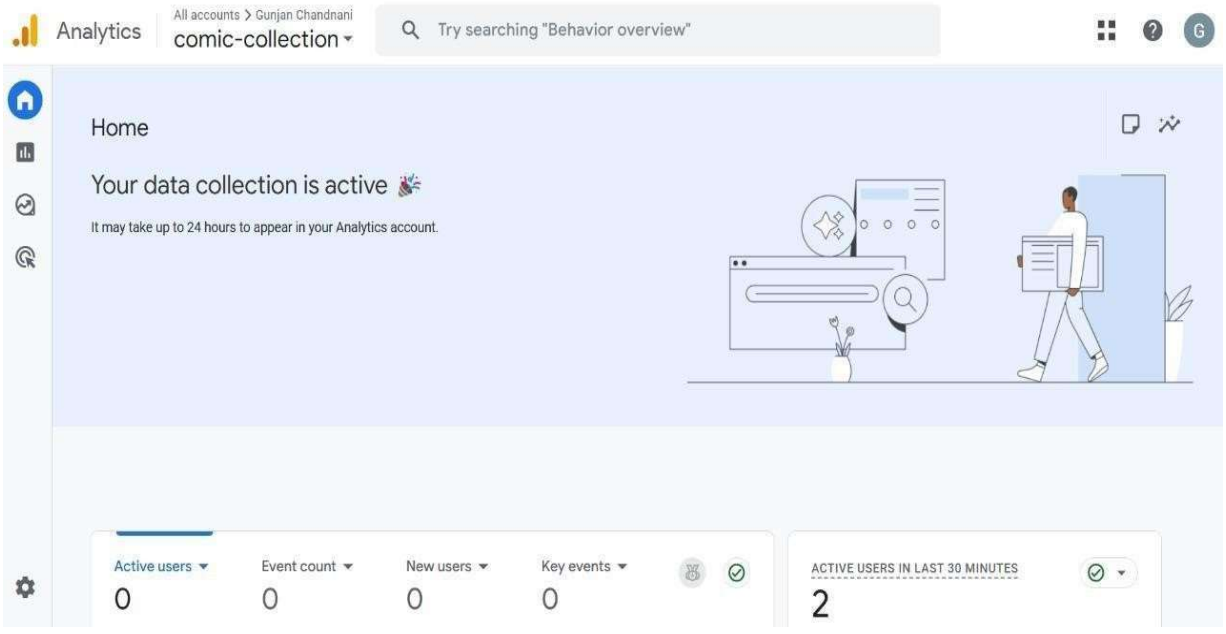


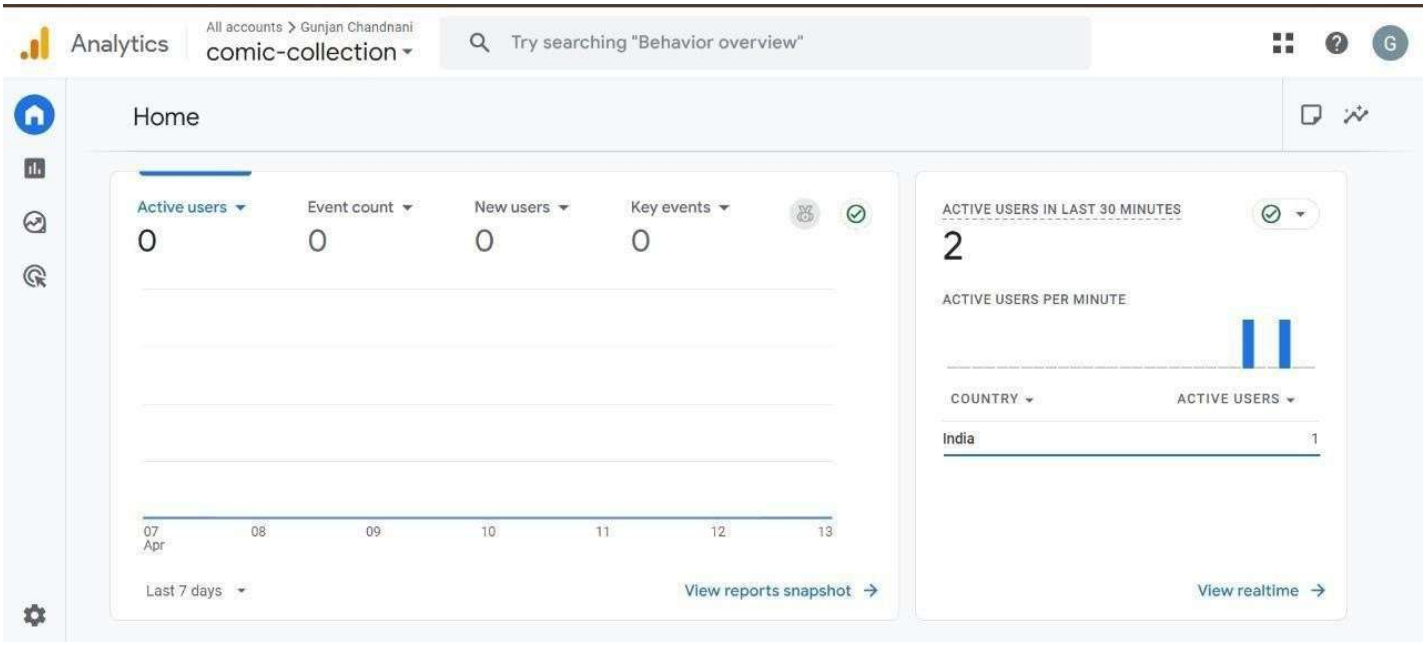
Review Page:



3.2 Google Ananlysis






Analytics
All accounts > Gunjan Chandnani
comic-collection
Try searching "Behavior overview"
Home
Active users
0
Event count
0
New users
0
Key events
0
07 Apr
08
09
10
11
12
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Last 7 days
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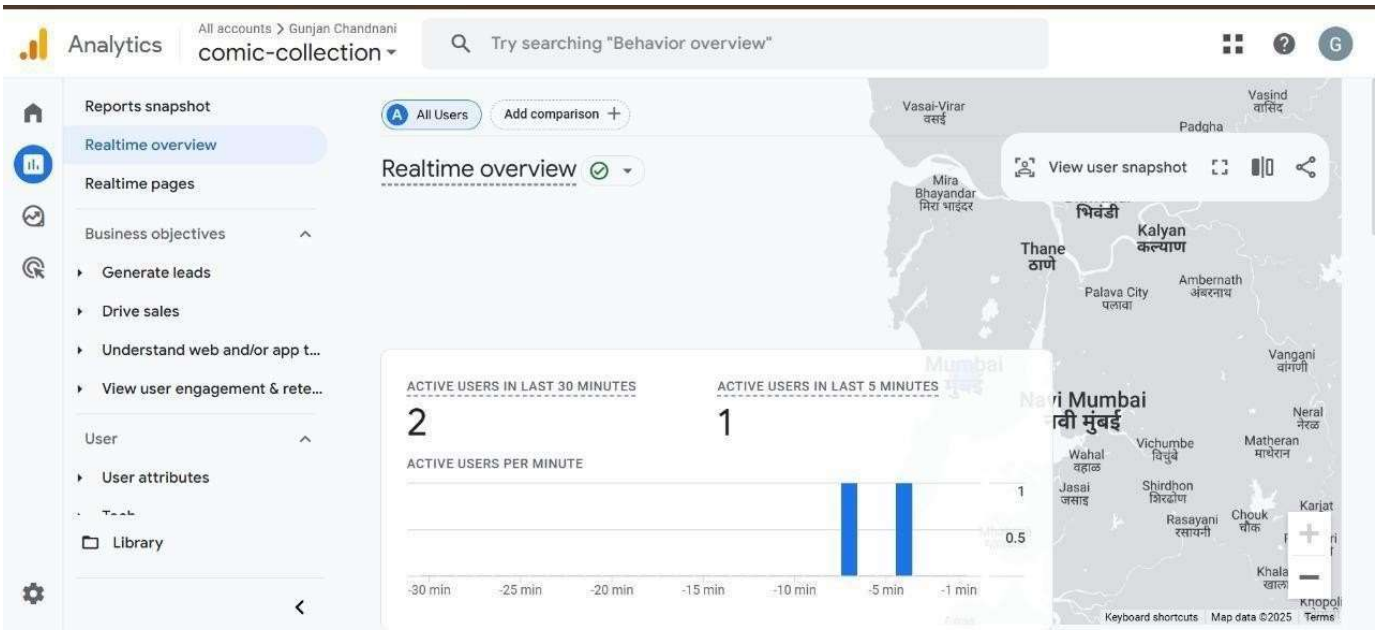
ACTIVE USERS IN LAST 30 MINUTES
2
ACTIVE USERS PER MINUTE
COUNTRY
ACTIVE USERS
India
1
View realtime


Analytics
All accounts > Gunjan Chandnani
comic-collection
Try searching "Behavior overview"
Reports snapshot
Realtime overview
Realtime pages
Business objectives
Generate leads
Drive sales
Understand web and/or app t...
View user engagement & rete...
User
User attributes
Library
All Users
Add comparison
Realtime overview
ACTIVE USERS IN LAST 30 MINUTES
2
ACTIVE USERS IN LAST 5 MINUTES
1
ACTIVE USERS PER MINUTE
1
0.5
-30 min
-25 min
-20 min
-15 min
-10 min
-5 min
-1 min
View user snapshot
Vasai-Virar
वसई
Vasind
वासिंद
Padgha
Mira Bhayandar
मिरा भाईंदर
भिवंडी
Kalyan
कल्याण
Thane
ठाणे
Palava City
पलावा
Ambernath
अंबरनाथ
Vangani
वांगणी
Mumbai
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Matheran
माथेरान
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वहाळ
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जसाई
Shirdhon
शिरढोण
Rasayani
रसायनी
Chouk
चौक
Karjat
Khala
खाला
Keyboard shortcuts
Map data ©2025
Terms

Chapter 4

Conclusion

4.2 Conclusion

The Comic Collection and Review Platform successfully integrates modern web technologies to deliver a seamless user experience for comic enthusiasts. By combining **Angular**, **TypeScript**, **CSS**, and **Flask** on the frontend with **MongoDB** on the backend, the platform enables users to effortlessly manage their comic collections, write reviews, and revisit their favorite titles.

This project demonstrates the power of full-stack development using a component-based frontend, efficient RESTful APIs, and a flexible NoSQL database. It also highlights the importance of user-centered design, data management, and scalability in modern web applications.

4.3 Reference:

[5] Angular: https://youtu.be/0LhBvp8qpro?si=NBads_TQ6T_wyoew
[6] Flask: https://youtu.be/oA8brF3w5XQ?si=sx1v6m9ZdxEIumzK
[7] Deploy: https://youtu.be/9srnyNC1e_o?si=2aRIo9OPAfKJyVpw
[8] Mongodb: https://youtu.be/J6mDkcqU_ZE?si=8v9Oka3fFse4UUUU