[Comic-Collection]

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Submitted in partial fulfillment of the requirements
of the degree of

Bachelor of Engineering
(Information Technology)

By

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Under the guidance of

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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)**
Gunjan Chandnani 6

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*

Contents

1 Introduction

CHAPTER: 1 INTRODUCTION

The *Comic Collection and Review Platform* is a full-stack web application developed to provide users with a seamless way to manage, explore, and review their personal comic book collections. This project combines the power of modern web technologies—**Angular** and **TypeScript** for a dynamic frontend experience, **Flask** for a lightweight and efficient backend API, and **MongoDB** for flexible and scalable data storage.

The platform enables users to:

- **Add new comics** to their personal collection with details such as title, author, genre, and cover image.
- **Write and view reviews** for each comic, helping users reflect on their reading experiences and share opinions with others.
- **Access and manage** their own comic list anytime, making it easy to track their reading progress or favorite titles.

The application follows a **component-based architecture** in Angular, ensuring reusability and maintainability. Flask APIs handle all CRUD operations efficiently, while MongoDB provides schema-less flexibility for storing diverse comic-related data. The UI is designed with user experience in mind—clean, responsive, and intuitive across devices.

This project not only showcases integration between multiple modern technologies but also demonstrates how full-stack development can be used to build functional, user-friendly platforms tailored to niche interests like comic book collecting and reviewing.

Chapter 2

Design and Implementatin

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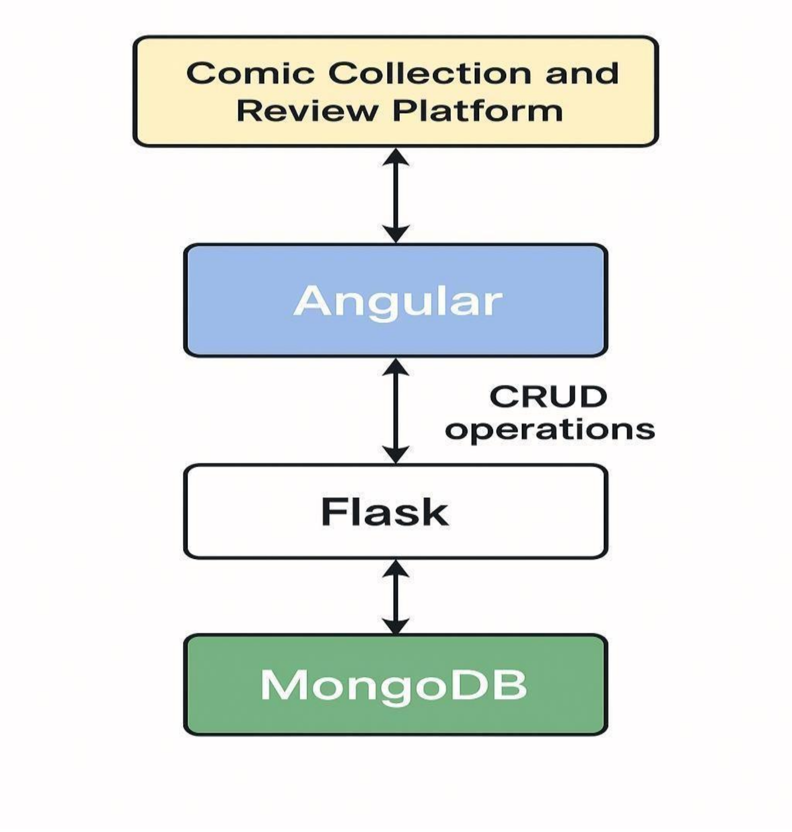
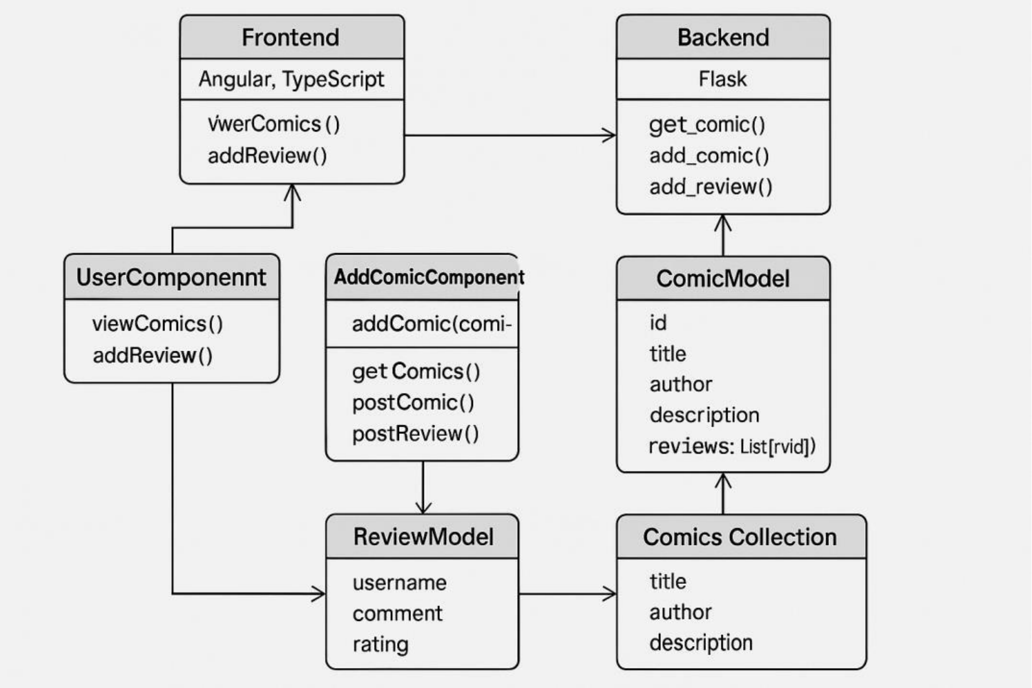
2.1 Block Diagram



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

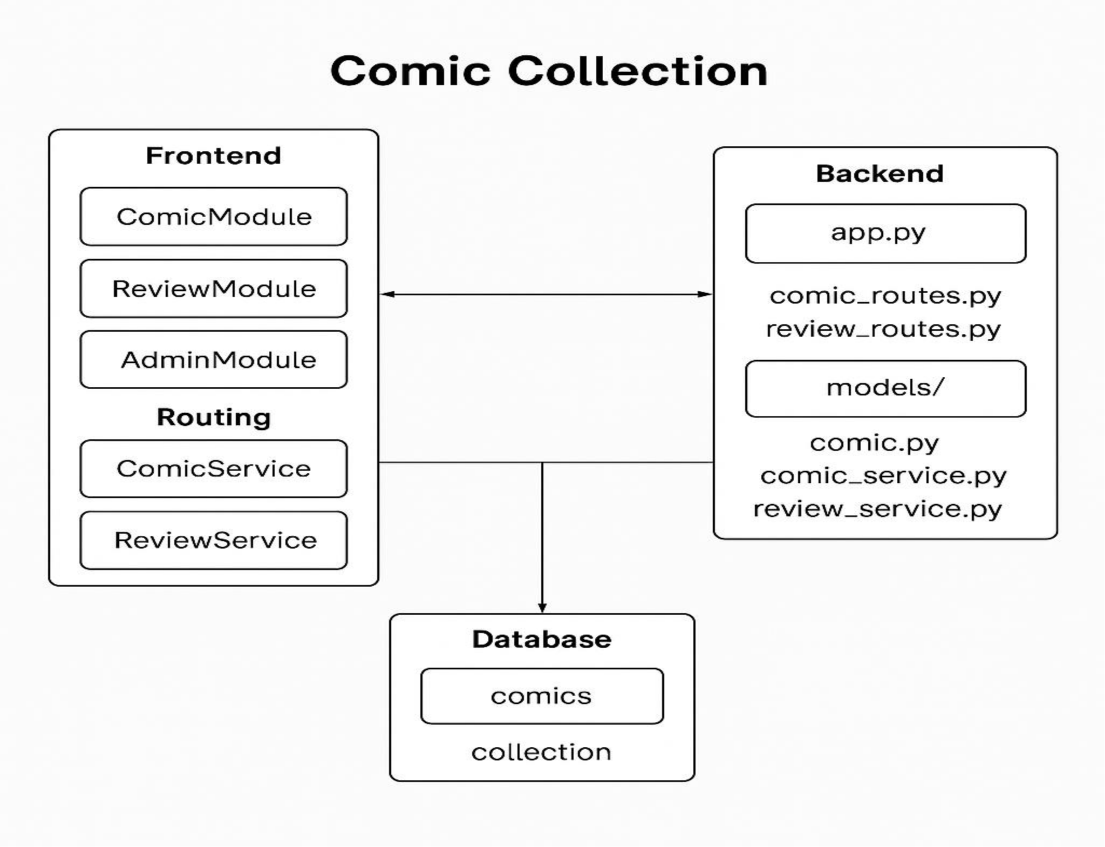
- **Angular** (Frontend): Handles user interactions like adding comics and posting reviews.
- **Flask** (Backend): Acts as an API server to manage data flow and perform **CRUD operations** (Create, Read, Update, Delete).
- **MongoDB** (Database): Stores comic details and user reviews in a flexible NoSQL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

2.2 UML Diagram



1. Frontend (Angular - TypeScript) • **UserComponent** ○ ▪ viewComics() ○ ▪ addReview() • **AddComicComponent** ○ ▪ addComic(comicData) • **ComicService** ○ ▪ getComics() ○ ▪ postComic() ○ ▪ postReview()	**2. Backend (Flask)** • **ComicModel** ○ ▪ id ○ ▪ title ○ ▪ author ○ ▪ description ○ ▪ reviews: List[ReviewModel] • **ReviewModel** ○ ▪ username ○ ▪ comment ○ ▪ rating
3. Database (MongoDB) • **Comics Collection** ○ title ○ author ○ description ○ reviews [{ username, comment, rating }]	

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

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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

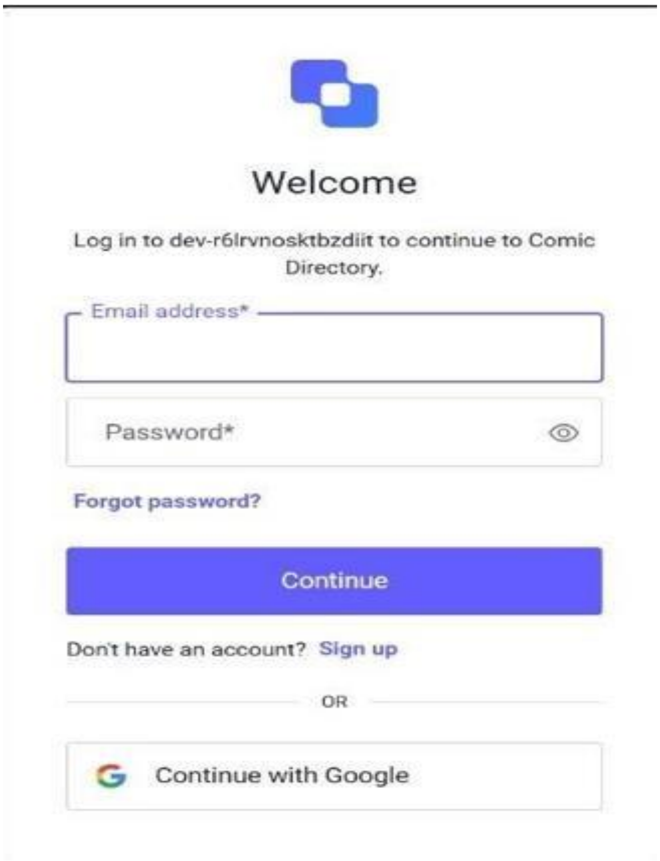
3. Development and Hosting-

Hosting Platform:- Netlify

Chapter 3: Results

3.1 Results of Implementation:

LoginPage:



Welcome

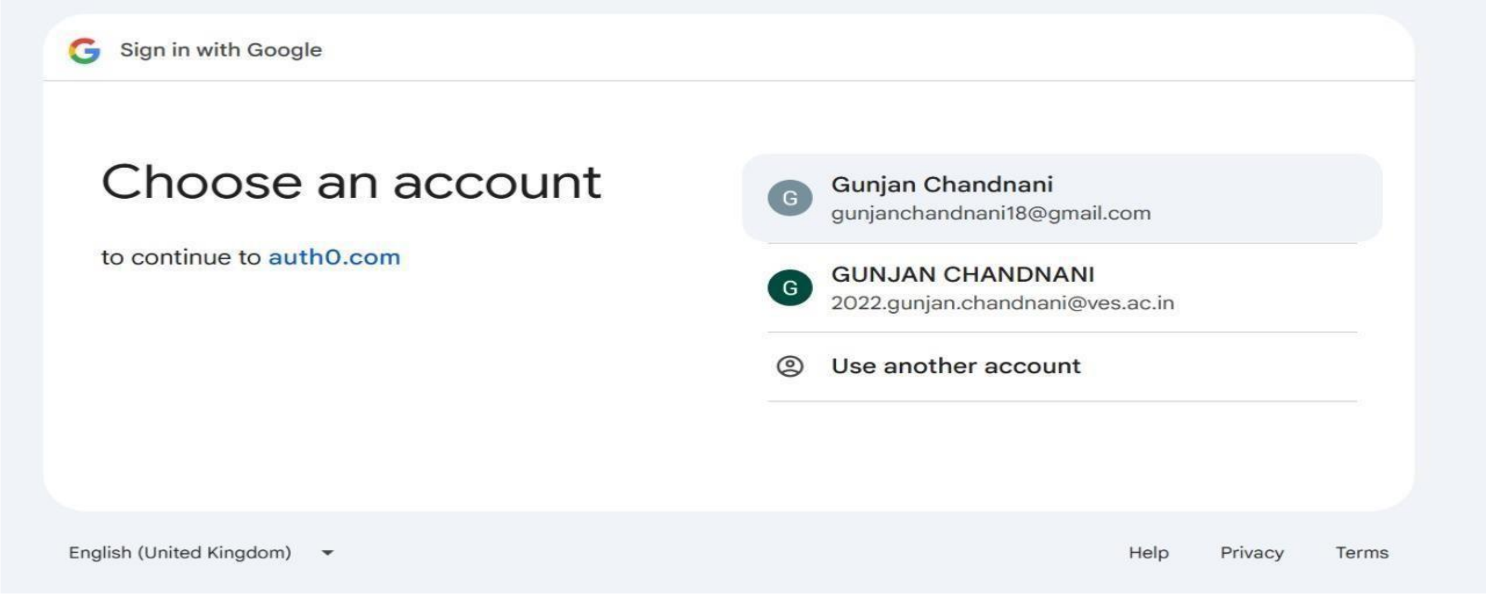
Log in to dev-r6lrvnosktbzdiit to continue to Comic Directory.

Email address*

Password*

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

When User Continue using Google:



Sign in with Google

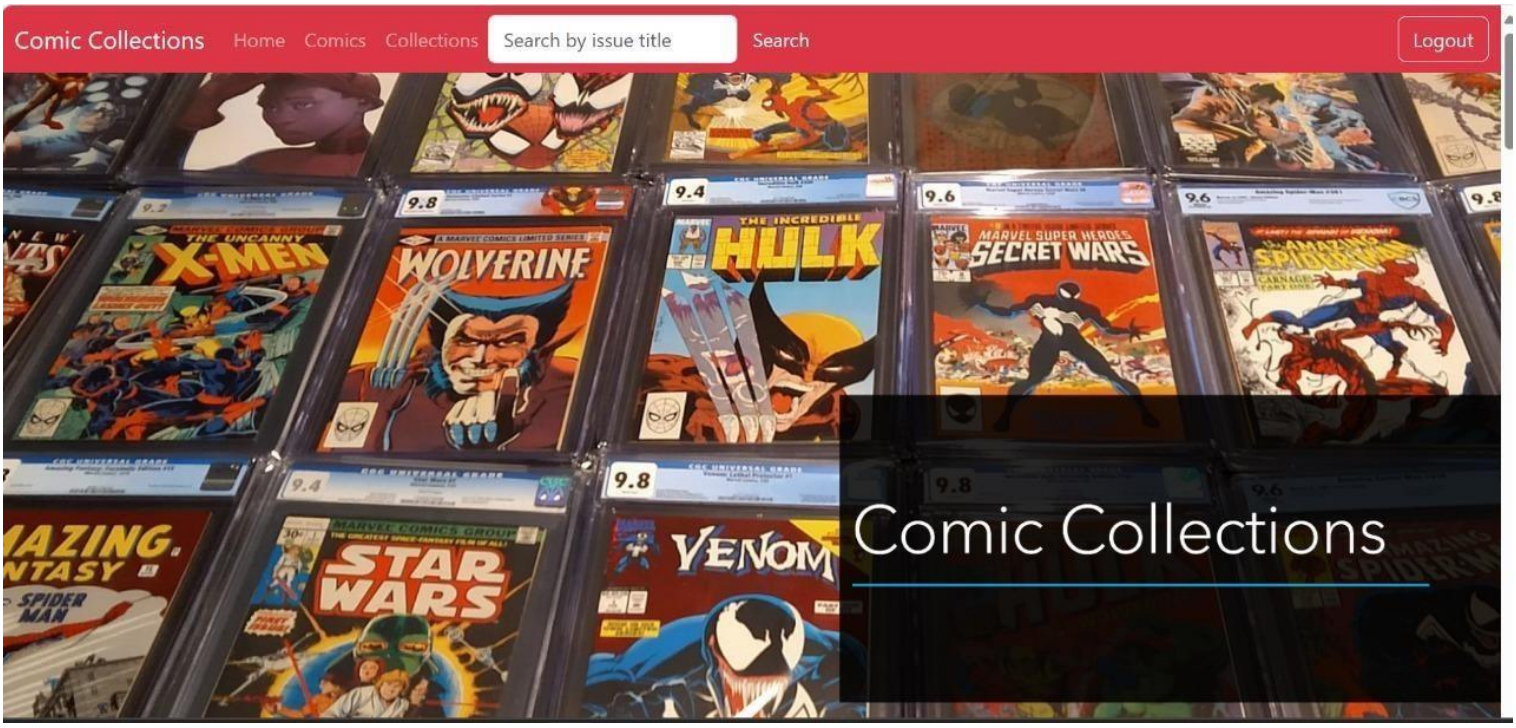
Choose an account

to continue to auth0.com

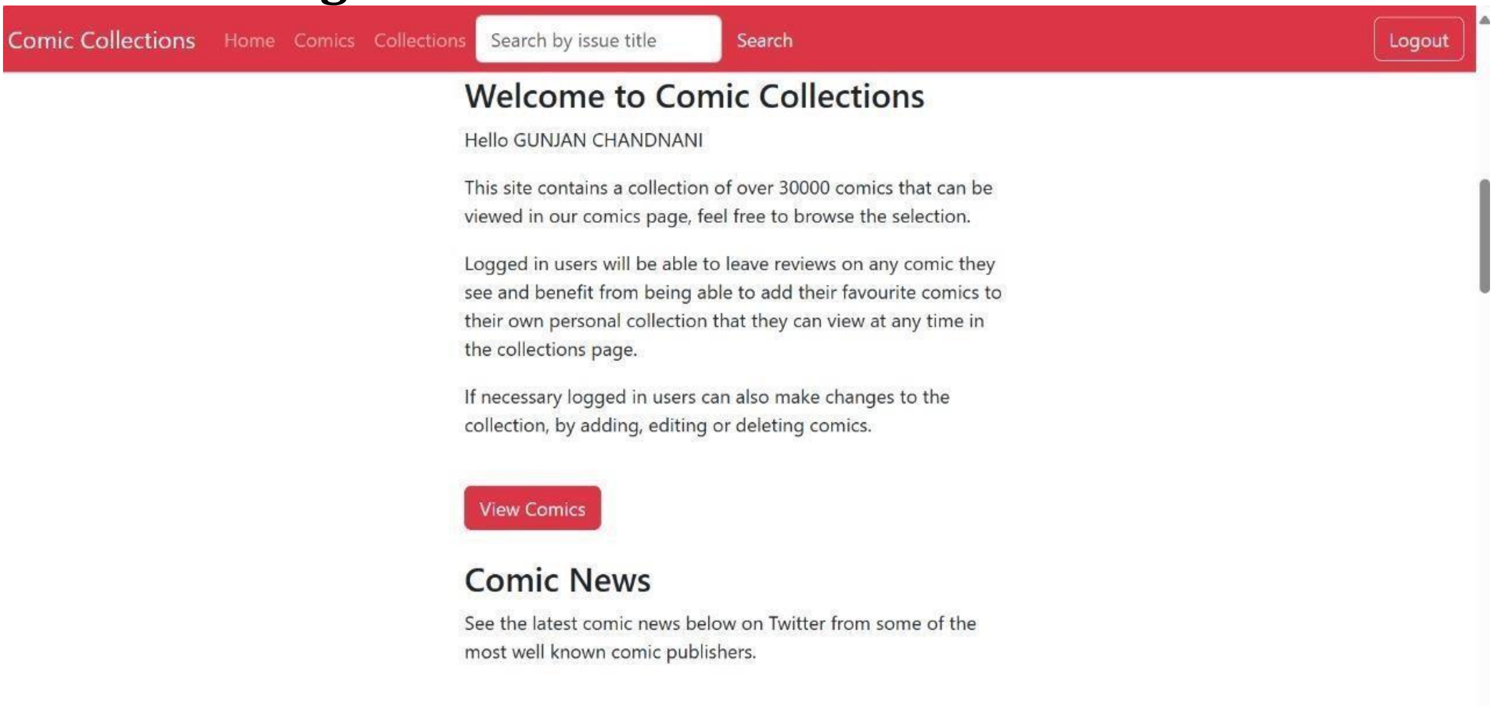
Gunjan Chandnani
gunjanchandnani18@gmail.com

GUNJAN CHANDNANI
2022.gunjan.chandnani@ves.ac.in

Home Page:



Collection Page:



Welcome to Comic Collections

Hello GUNJAN CHANDNANI

This site contains a collection of over 30000 comics that can be viewed in our comics page, feel free to browse the selection.

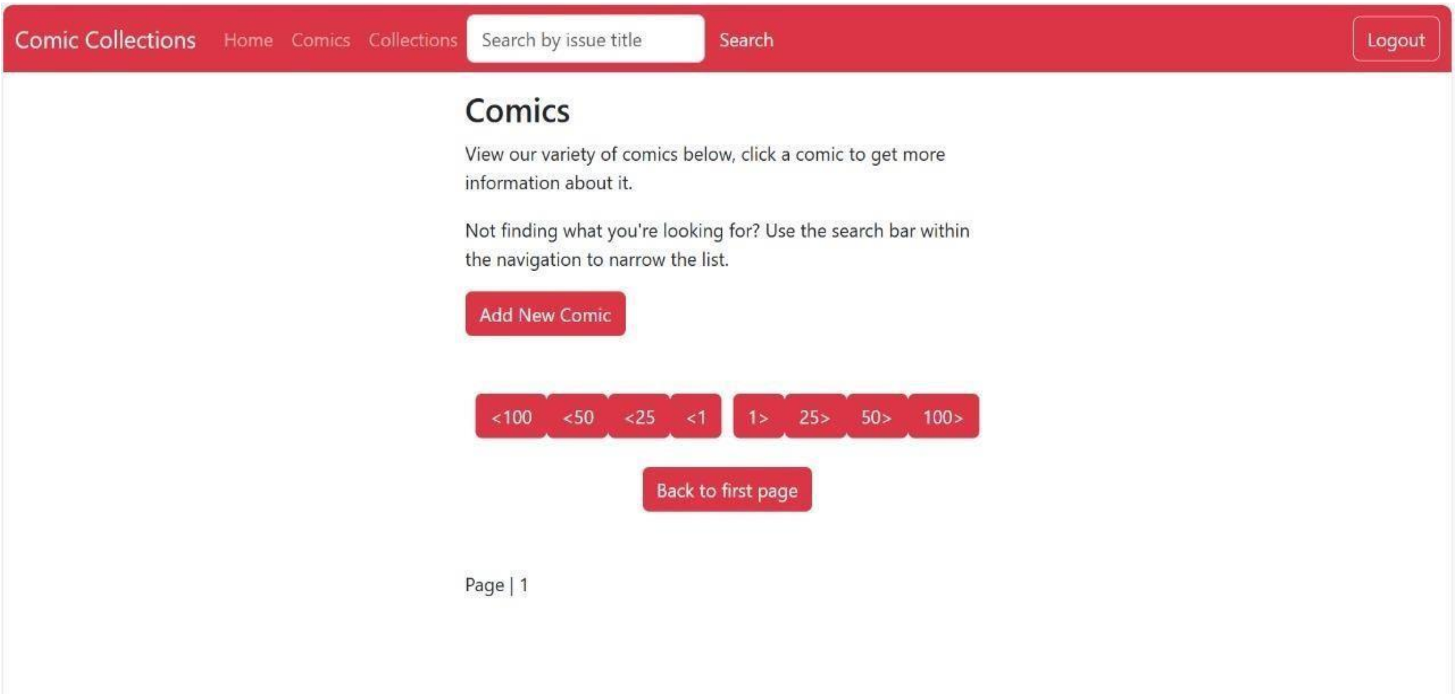
Logged in users will be able to leave reviews on any comic they see and benefit from being able to add their favourite comics to their own personal collection that they can view at any time in the collections page.

If necessary logged in users can also make changes to the collection, by adding, editing or deleting comics.

Comic News

See the latest comic news below on Twitter from some of the most well known comic publishers.

Comic Page:



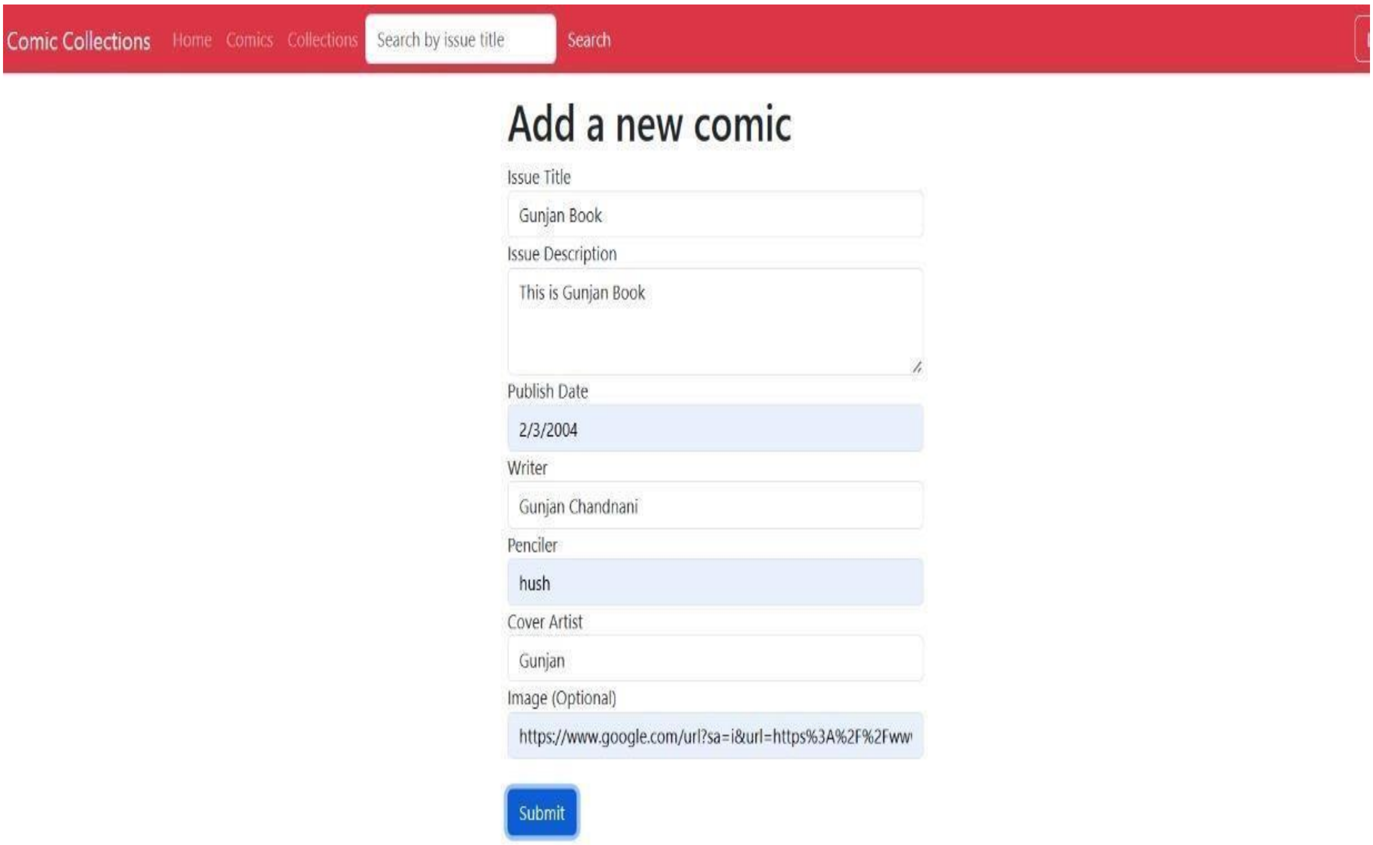
Comics

View our variety of comics below, click a comic to get more information about it.

Not finding what you're looking for? Use the search bar within the navigation to narrow the list.

Page | 1

When User Click on Add New Comic:



Add a new comic

Issue Title: Gunjan Book

Issue Description: This is Gunjan Book

Publish Date: 2/3/2004

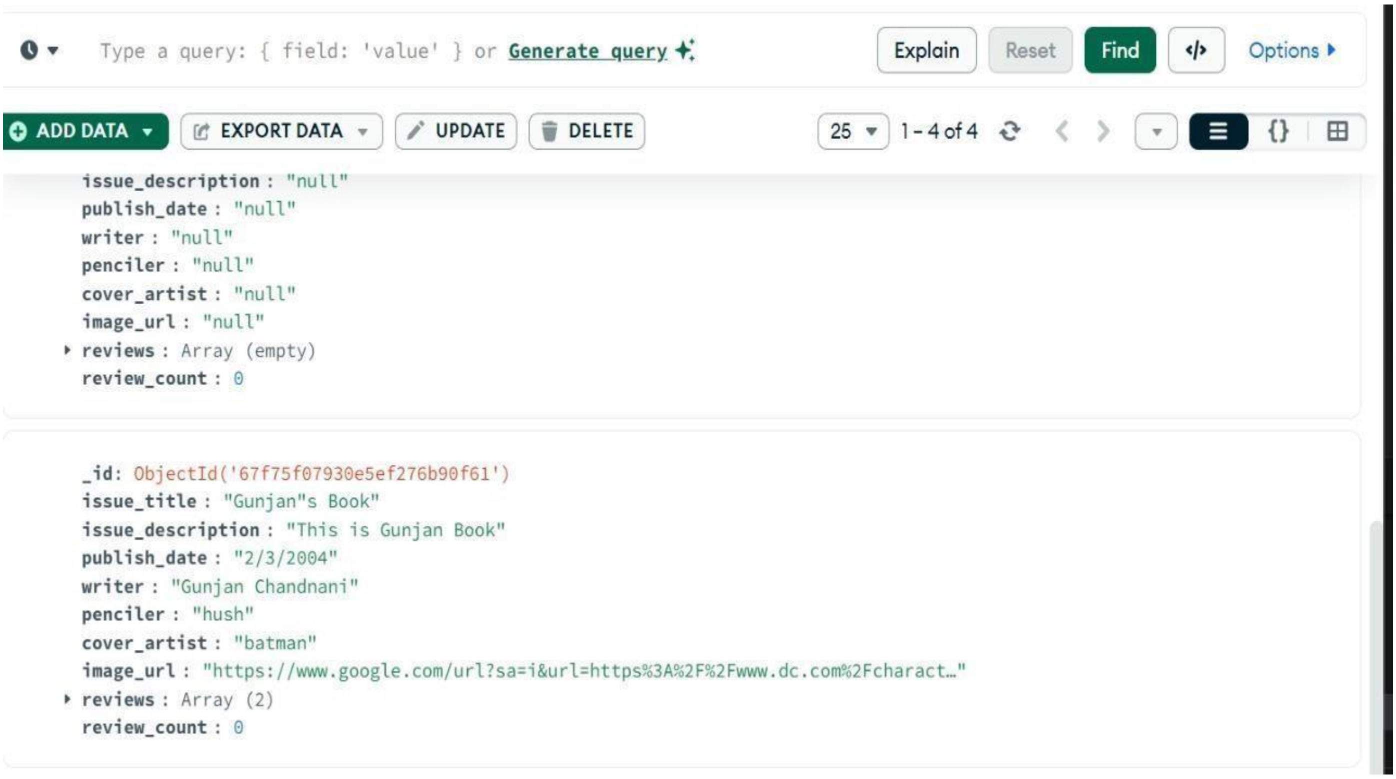
Writer: Gunjan Chandnani

Penciler: hush

Cover Artist: Gunjan

Image (Optional): https://www.google.com/url?sa=i&url=https%3A%2F%2Fww

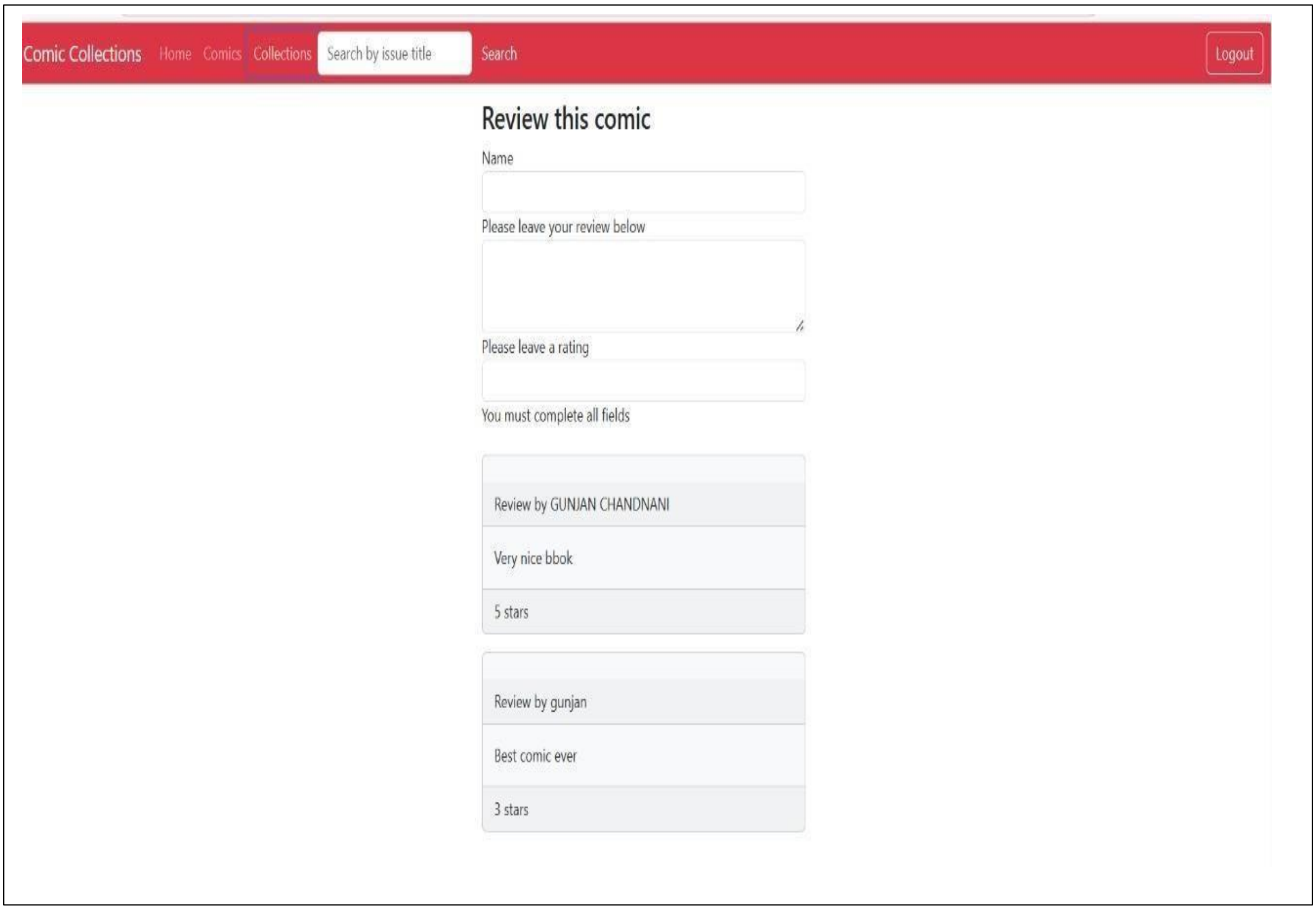
In Backend(Using Mongodb):



```
issue_description : "null"
publish_date : "null"
writer : "null"
penciler : "null"
cover_artist : "null"
image_url : "null"
▸ reviews : Array (empty)
review_count : 0

_id: ObjectId('67f75f07930e5ef276b90f61')
issue_title : "Gunjan"s Book"
issue_description : "This is Gunjan Book"
publish_date : "2/3/2004"
writer : "Gunjan Chandnani"
penciler : "hush"
cover_artist : "batman"
image_url : "https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.dc.com%2Fcharact…"
▸ reviews : Array (2)
review_count : 0
```

Review Page:



Review this comic

Name

Please leave your review below

Please leave a rating

You must complete all fields

Review by GUNJAN CHANDNANI

Very nice bbok

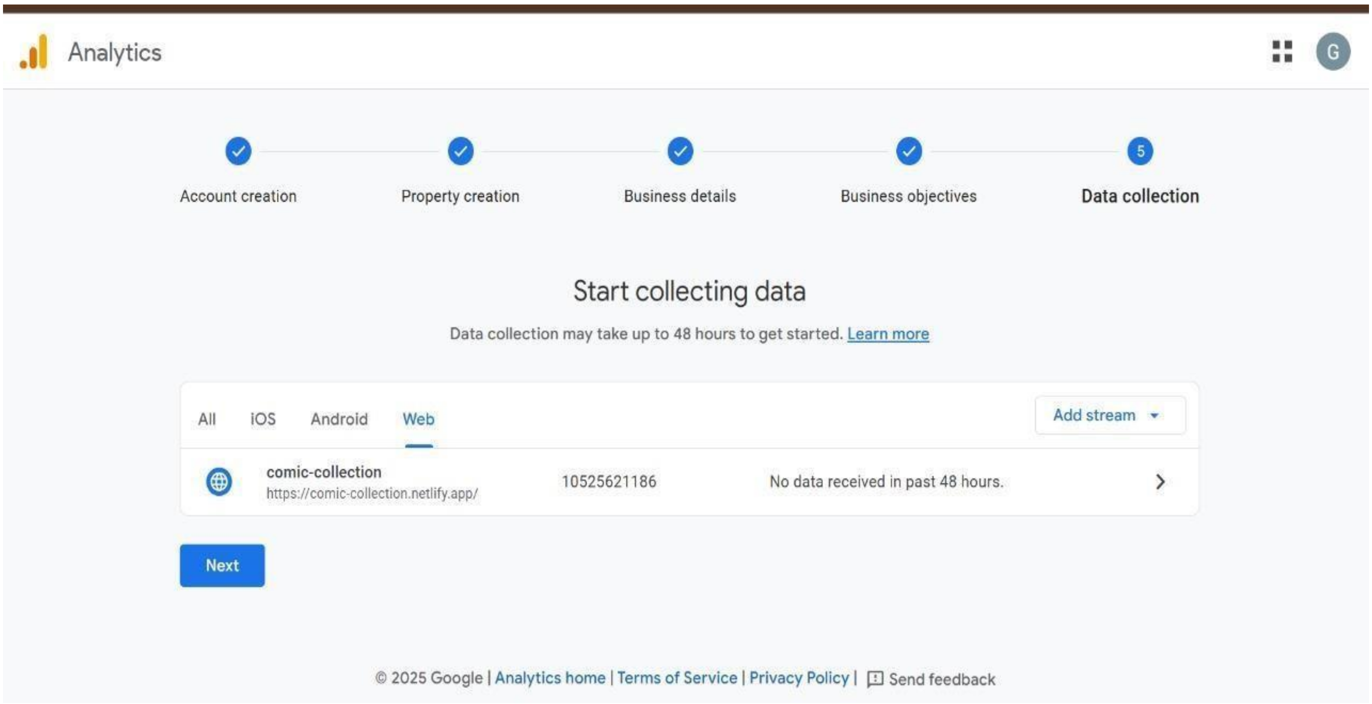
5 stars

Review by gunjan

Best comic ever

3 stars

3.2 Google Ananlysis



Start collecting data

Data collection may take up to 48 hours to get started. Learn more

comic-collection
https://comic-collection.netlify.app/ 10525621186 No data received in past 48 hours.

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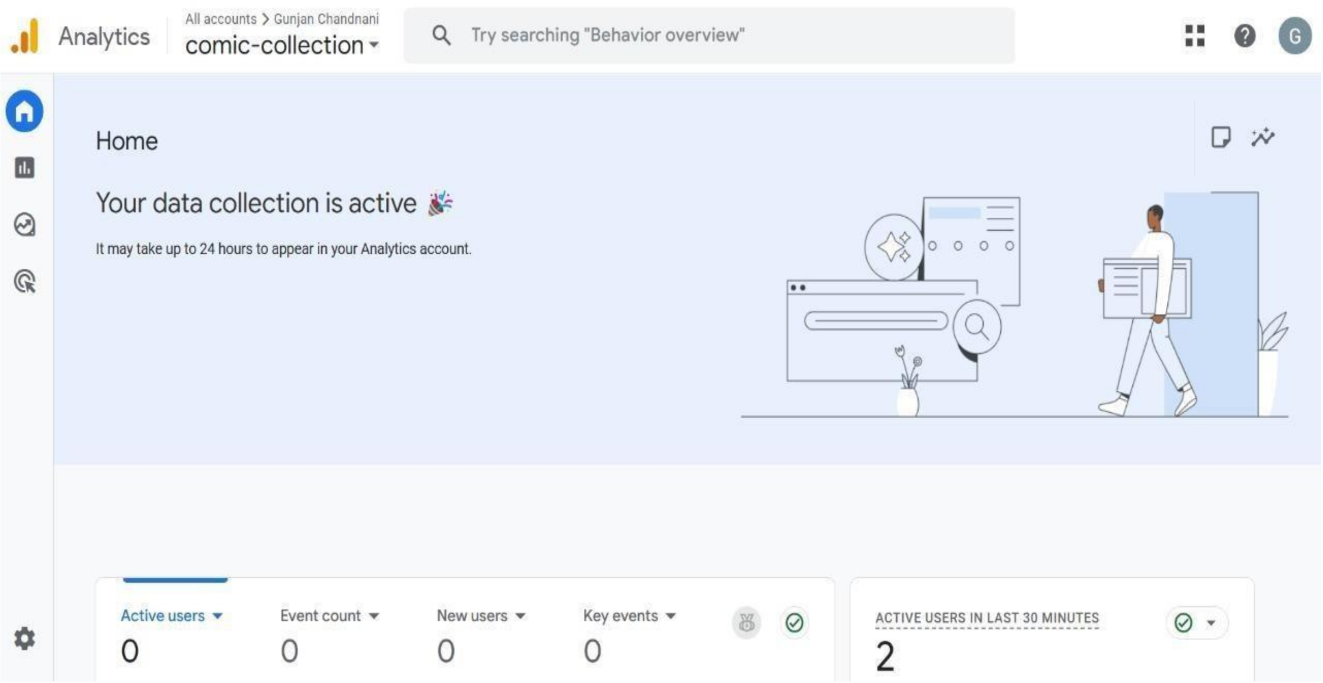


Analytics
All accounts > Gunjan Chandnani
comic-collection
Try searching "Behavior overview"

Home

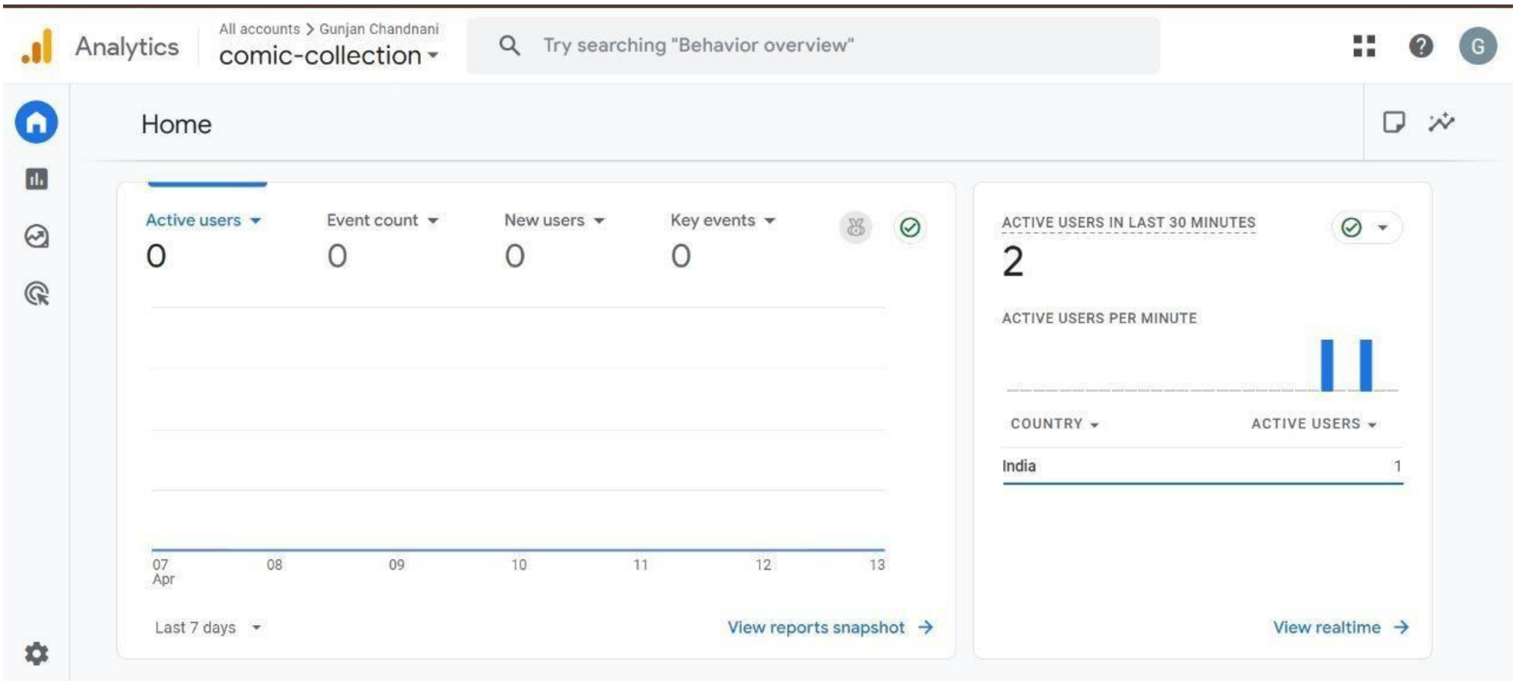
Your data collection is active

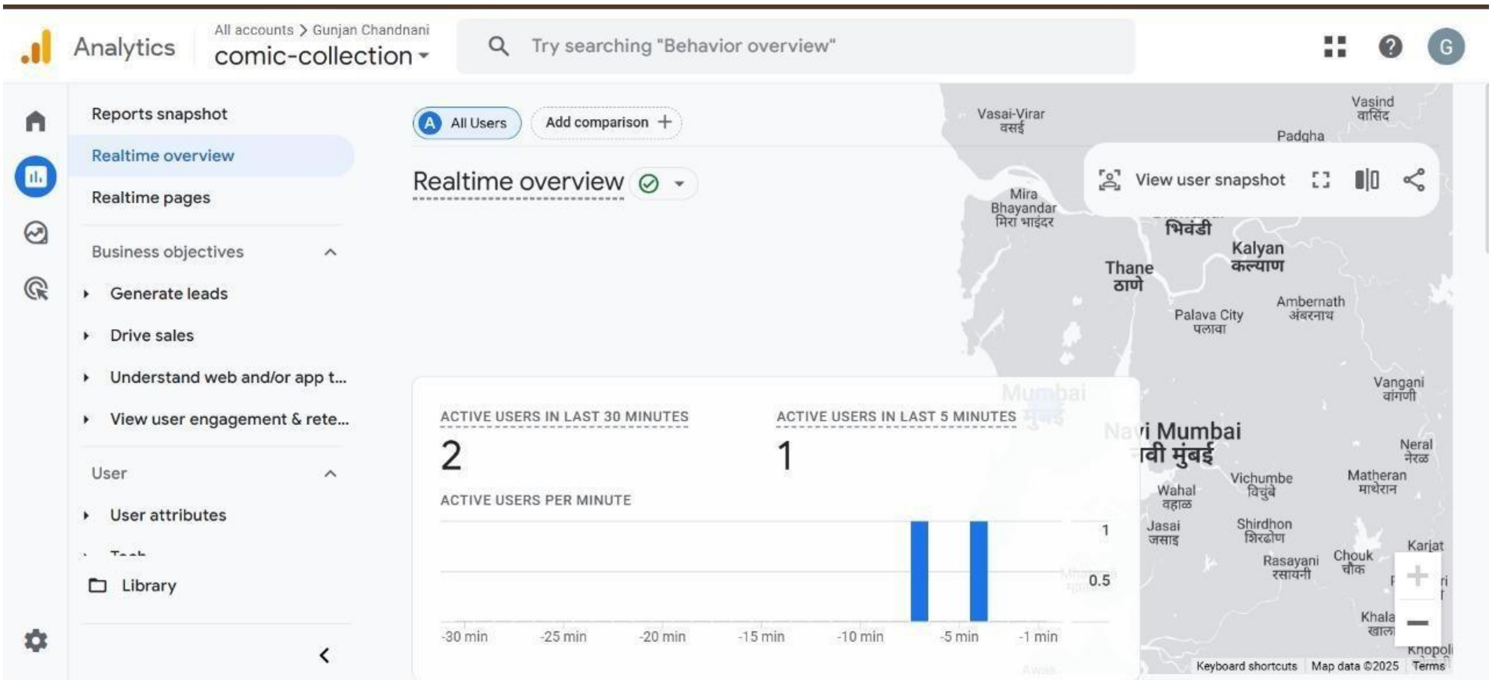
It may take up to 24 hours to appear in your Analytics account.

Active users	Event count	New users	Key events
0	0	0	0

ACTIVE USERS IN LAST 30 MINUTES

2


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
13
Last 7 days
View reports snapshot →
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
Tech
Library
A All Users
Add comparison +
Realtime overview
View user snapshot
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
Vasai-Virar
वसई
Vasind
वासिंद
Padgha
Mira
Bhayandar
मिरा भाइंदर
भिवंडी
Kalyan
कल्याण
Thane
ठाणे
Ambernath
अंबरनाथ
Palava City
पलावा
Vangani
वांगणी
Mumbai
मुंबई
Navi Mumbai
नवी मुंबई
Neral
नेरळ
Wahal
वहाळ
Vichumbe
विचुंबे
Matheran
माथेरान
Jasai
जसाइ
Shirdhon
शिरढोण
Karjat
Rasayani
रसायनी
Chouk
चौक
Khala
Khopoli
Keyboard shortcuts
Map data ©2025
Terms

Chapter 4

Conclusion

4.1 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.

4.2 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