



Department Of Information Technology

STES'S SINHGAD ACADEMY OF ENGINEERING

KONDHWA BK, PUNE 411048

2024-2025

Project Report

On

“Cricket Player Management”

by

Roll No.	Name	Exam Seat .No.
ITTA07	Aman Jambulkar	ITTA07
ITTA08	Aditya Shirsat	ITTA08
ITTA09	Aman Sayyad	ITTA09
ITTA10	Harsh Chaudari	ITTA10

Under the guidance of

Mrs. P. S. Bangare



CERTIFICATE

This is to certify that the mini project report entitled “**Cricketer Profile**” being submitted by **Aman Jambulkar, Aditya Shirsat, Aman Sayyad and Harsh Chaudhari** is a record of bonafide work carried out by them under the supervision and guidance of **Mrs.P.S.Bangare** for the partial fulfilment of the requirement for the Mini Project in subject ADBMS(LP-1) of BE. Degree, V semester, of Savitribai Phule Pune University during the academic year 2024-2025.

Date : 11 / 10 /2024

Place : Kondhwa , Pune

Mrs.P.S.Bangare

Project Guide

Dr.S.S.Kulkarni

HOD

Dr.K.P.Patil

Principal

ACKNOWLEDGEMENT

First and foremost, I extend my deepest gratitude to the Almighty for His countless blessings, which have guided and supported us throughout the completion of this research project. I am profoundly grateful to my esteemed professor, Mrs. P.S. Bangare, for granting us the opportunity to undertake this project and for her invaluable guidance and support. Her vision, dedication, sincerity, and unwavering motivation have been a constant source of inspiration. She has provided us with critical insights into research methodologies and helped us present our work with clarity and precision. It has been a true privilege and honour to study and work under her guidance, and I remain deeply appreciative of all that she has imparted to us. I would also like to extend my sincere thanks to my project team members Aman Jambhulkar, Aditya Shirsat, Aman Sayyad, and Harsh Chaudhari for their dedication, hard work, and consistency throughout the course of this project. Their collective efforts, as well as the valuable resources they contributed, have played a pivotal role in the successful completion of this research.

Aman Jambulkar

Aditya Shirsat

Aman Sayyad

Harsh Chaudari

TEIT

CONTENTS

SR NO.	TITLE	PAGE NO
1.	Abstract	
2.	Introduction 2.1 Problem Statement 2.2 Objectives 2.3 Scope	
3.	Requirements Analysis 3.1 Aspects: 3.1.1 Administrator Aspect 3.1.2 Driver Aspect 3.1.3 Client Aspect 3.2 Analysis 3.2.1 Performance 3.2.2 Portability 3.2.3 Maintainability 3.2.4 Reliability 3.2.5 Usability	
4.	Feasibility Study	
5.	System Requirements	
6.	ER-Diagram	
7.	ER-Diagram to Document Conversion	
8.	Implementation of System 8.1 Coding 8.2 Screenshots 8.3 Database	
9.	Future Scope and Enhancements	
10.	Conclusion	
11.	References	

1. ABSTRACT

This project delves into the comprehensive profiles of cricketers, offering a multifaceted exploration of their careers, achievements, and broader impact both within and beyond the realm of cricket. The cricketers selected for this study are not only exceptional athletes but also cultural icons whose influence extends far beyond the boundaries of the sport. By examining a variety of dimensions—such as detailed career statistics, notable achievements, personal anecdotes, and their social and cultural significance—this project aims to offer a holistic understanding of what makes these athletes truly iconic figures in the world of cricket. The study will meticulously analyze key performance indicators, such as batting and bowling averages, match-winning performances, and contributions in critical moments, to highlight the cricketers' technical mastery and their contributions to their teams' successes. In addition, the project will include personal stories and interviews, shedding light on their individual journeys, challenges, and triumphs, giving readers insight into the human side of these athletes, beyond just numbers and records.

2. INTRODUCTION

2.1 PROBLEM STATEMENT:

Cricket, often regarded as a gentleman's game, is a sport that has captivated millions across the globe. This project delves into the profiles of renowned cricketers, aiming to explore their illustrious careers, the milestones they have achieved, and the impact they have had on the sport and beyond. By examining their journeys, we not only celebrate their contributions to cricket but also seek to understand the qualities that make them exceptional athletes and influential figures. This study will provide a comprehensive overview of their professional achievements, personal anecdotes, and the broader cultural significance of their presence in the cricketing world. Through this exploration, we hope to inspire and inform future generations, highlighting the dedication, perseverance, and passion that define the lives of these cricketing icons.

2.2 OBJECTIVES:

1. **Comprehensive Profiles:** To compile and present detailed profiles of cricketers, covering their early life, career milestones, and key achievements.
2. **Career Analysis:** To analyze the performance metrics and contributions of cricketers to the sport, emphasizing records, memorable matches, and individual accolades.
3. **Inspirational Narratives:** To highlight the personal journeys and stories of cricketers, focusing on their dedication, perseverance, and the challenges they overcame.
4. **Role Model Influence:** To explore how cricketers serve as role models for aspiring players, emphasizing the qualities and values they embody both on and off the field.
5. **Cultural and Social Impact:** To examine the broader impact of cricketers on their communities and the global cricketing community, illustrating their influence beyond the sport.

2.3 SCOPE:

This project aims to delve deeply into the profiles of cricketers, providing a multi-dimensional analysis of their careers and personal journeys. Key areas of focus will include:

1. Detailed Profiles: Chronicling the early lives, training, and career milestones of selected cricketers.
2. Performance Metrics: Comprehensive analysis of players' statistics, records, and contributions to significant matches and tournaments.
3. Personal Insights: Gathering and presenting personal anecdotes, interviews, and autobiographical details to offer a holistic view of the cricketers' lives.
4. Historical Context: Examining the evolution of cricket through the careers of these athletes, noting shifts in gameplay and strategies.
5. Cultural Impact: Exploring the influence of cricketers on their communities, fan bases, and the broader cultural landscape, both locally and internationally.

3. REQUIREMENT ANALYSIS

3.1 Aspects:

The system will have multiple user roles with specific functionality designed to meet their needs.

3.1.1 Administrator Aspect:

- **Role:** The administrator manages the entire system and is responsible for ensuring that data related to players, teams, matches, and tournaments is accurate and up to date.
- **Responsibilities:**
 - Adding new players, updating player profiles and statistics.
 - Managing team information and overseeing transfers or changes.
 - Scheduling and recording matches.
 - Generating reports for player performance and team statistics.
 - Ensuring data security and integrity by controlling access rights.

3.1.2 Driver Aspect:

- **Role:** In the context of cricket player management, the "driver" could represent a system component or a user role responsible for data updates, which could involve scorekeepers or match officials.
- **Responsibilities:**
 - Entering live match data, such as scores, wickets, and player performances.
 - Updating the system in real time during matches or after a match ends.
 - Ensuring that all match data is accurate and properly linked to players and teams.

3.1.3 Client Aspect:

- **Role:** The client refers to team selectors, coaches, and analysts who rely on the system for data-driven decisions.
- **Responsibilities:**
 - Querying player data to evaluate performances.

- Analyzing statistics for making informed decisions regarding team composition, player selection, and strategy.
- Accessing historical match data to study trends and patterns.
- Requesting custom reports based on specific criteria, such as player form or match conditions.

3.2 Analysis:

This section focuses on assessing the system's key non-functional requirements.

3.2.1 Performance:

- The system should efficiently handle a large volume of data, including player statistics, match details, and team information.
- Queries related to player performance and team data must return results quickly, especially during peak usage times (e.g., during or after matches).
- The system should support high throughput for updating player and match statistics in real-time.

3.2.2 Portability:

- The system should be designed to run on various platforms (e.g., desktop, web, mobile), allowing administrators, scorekeepers, and clients to access it from different devices.
- Database portability should be considered so that the backend can be deployed on various database management systems if needed.

3.2.3 Maintainability:

- The system should be modular, enabling easy updates or bug fixes without affecting overall functionality.
- It should be easy to add new features (e.g., additional statistics or new match formats) to the database or user interface.
- Proper documentation should be provided for future developers to make enhancements or fixes.

3.2.4 Reliability:

- The system should be robust, ensuring data accuracy even under high load or concurrent access.
- Backup mechanisms should be implemented to prevent data loss in case of system failures.
- The database must ensure data consistency, especially when updating player profiles or match results.

3.2.5 Usability:

- The system interface should be intuitive, with a focus on ease of use for administrators, match officials, and clients.
- It should provide clear workflows for adding, updating, and querying data, reducing the chances of user error.
- Training and user guides should be provided to ensure that new users can quickly adapt to the system.

4. FEASIBILITY STUDY

Technical Feasibility: Using HTML, CSS, JavaScript for frontend, and Flask/Django with Python for backend makes this project technically feasible. MongoDB is a good fit for the database. Skills and tools needed are readily available.

Operational Feasibility: Userfriendly design ensures easy adoption. Minimal training required. Support will be provided via FAQs and helpdesks.

Economic Feasibility: Initial costs include development and hosting. Ongoing costs cover maintenance and support. Potential revenue through ads, subscriptions, and partnerships. Benefits outweigh costs.

Schedule Feasibility: Realistic timeline of 20 to 27 weeks with clear phases. Adequate resource allocation and regular reviews will keep the project on track.

5. SYSTEM REQUIREMENTS

Properties	Requirements
Operating system	Windows 8 or later
Processor	Intel Pentium 4 or later
Memory	2 GB minimum, 4 GB recommended
Screen resolution	1280x1024 or larger
Application window size	1024x680 or larger
Internet connection	Required

6. ER-DIAGRAM

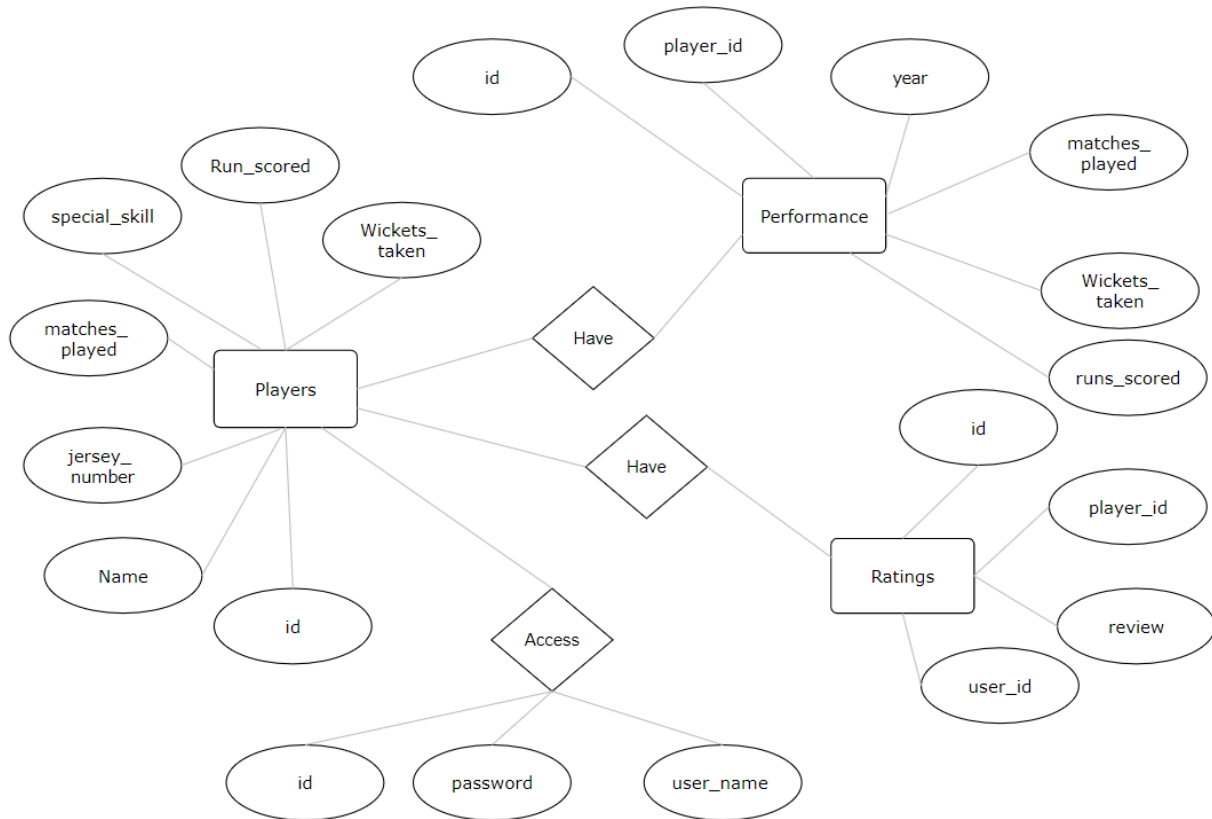


Fig 1. ER Diagram of Cricket Player Management

7. ER-DIAGRAM TO COLLECTION CONVERSION

Collections:

1.Players

Id	Name	Jersey_Number	Runs_Scored	Matches_Played	Special_Skill
-----------	-------------	----------------------	--------------------	-----------------------	----------------------

2. Performance

<u>Id</u>	<u>Player Id</u>	<u>Year</u>	<u>Matches Played</u>	<u>Runs Scored</u>	<u>Wickets Taken</u>
------------------	-------------------------	--------------------	------------------------------	---------------------------	-----------------------------

3. Ratings

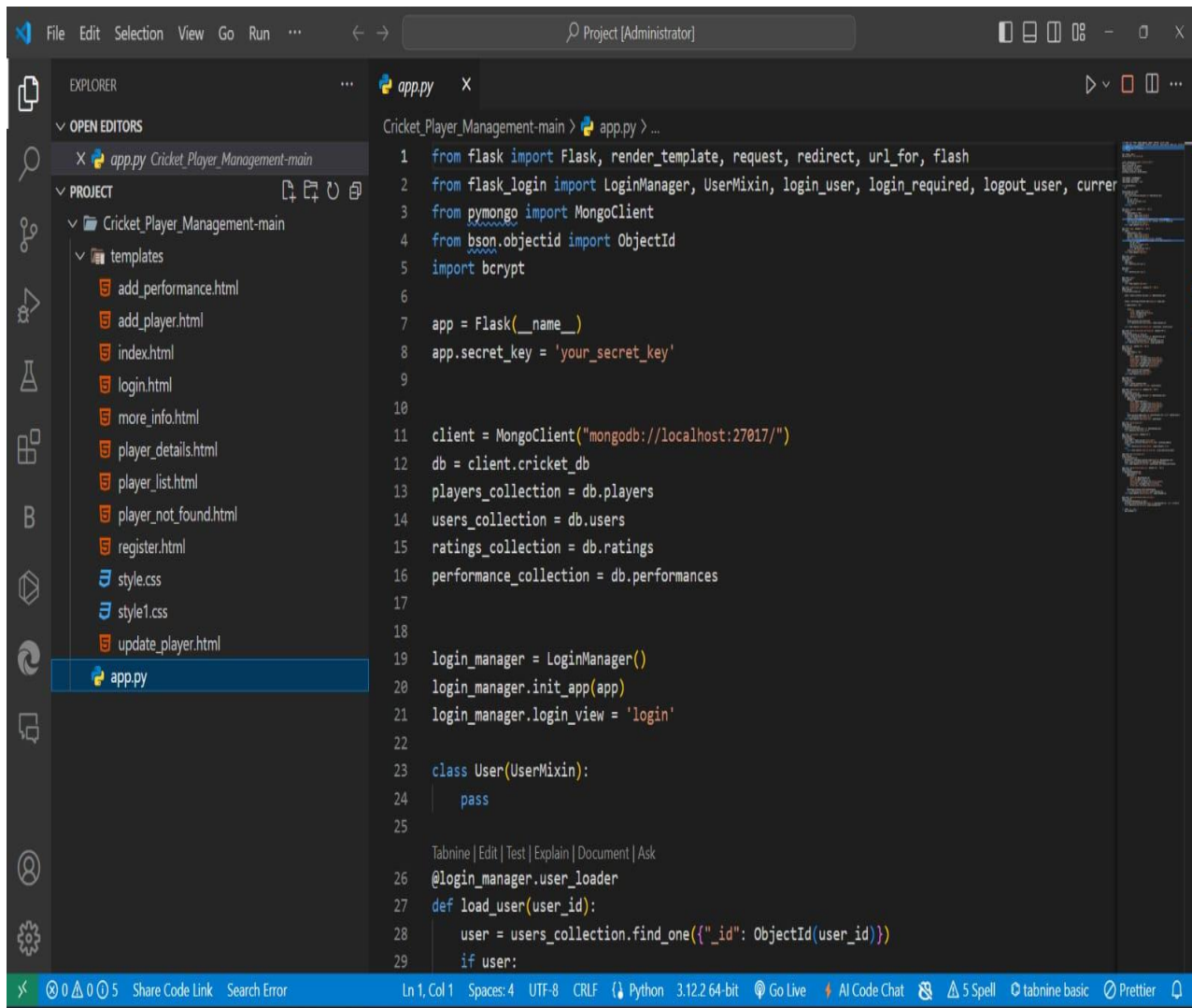
User_Id	Player_Id	Rating	Review
----------------	------------------	---------------	---------------

4, Users

Id	Username	Password
-----------	-----------------	-----------------

8. IMPLEMENTATION OF SYSTEM

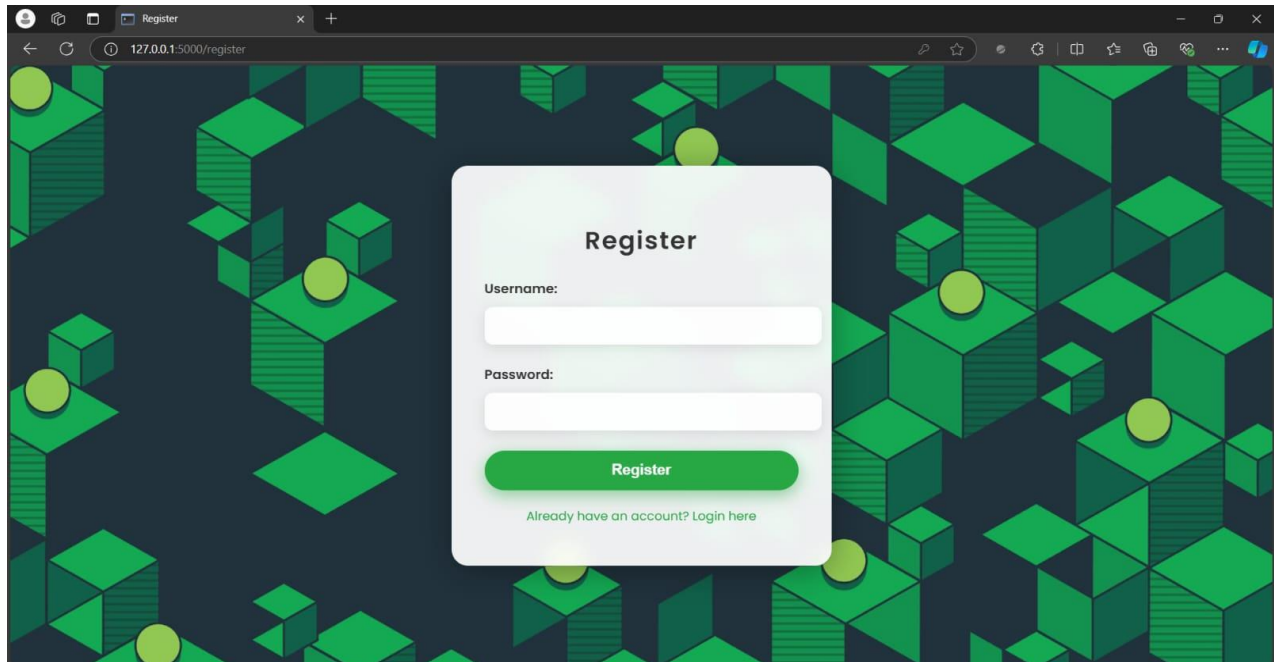
8.1 CODING :



```
1 from flask import Flask, render_template, request, redirect, url_for, flash
2 from flask_login import LoginManager, UserMixin, login_user, login_required, logout_user, current_user
3 from pymongo import MongoClient
4 from bson.objectid import ObjectId
5 import bcrypt
6
7 app = Flask(__name__)
8 app.secret_key = 'your_secret_key'
9
10
11 client = MongoClient("mongodb://localhost:27017/")
12 db = client.cricket_db
13 players_collection = db.players
14 users_collection = db.users
15 ratings_collection = db.ratings
16 performance_collection = db.performances
17
18
19 login_manager = LoginManager()
20 login_manager.init_app(app)
21 login_manager.login_view = 'login'
22
23 class User(UserMixin):
24     pass
25
26 @login_manager.user_loader
27 def load_user(user_id):
28     user = users_collection.find_one({"_id": ObjectId(user_id)})
29     if user:
```

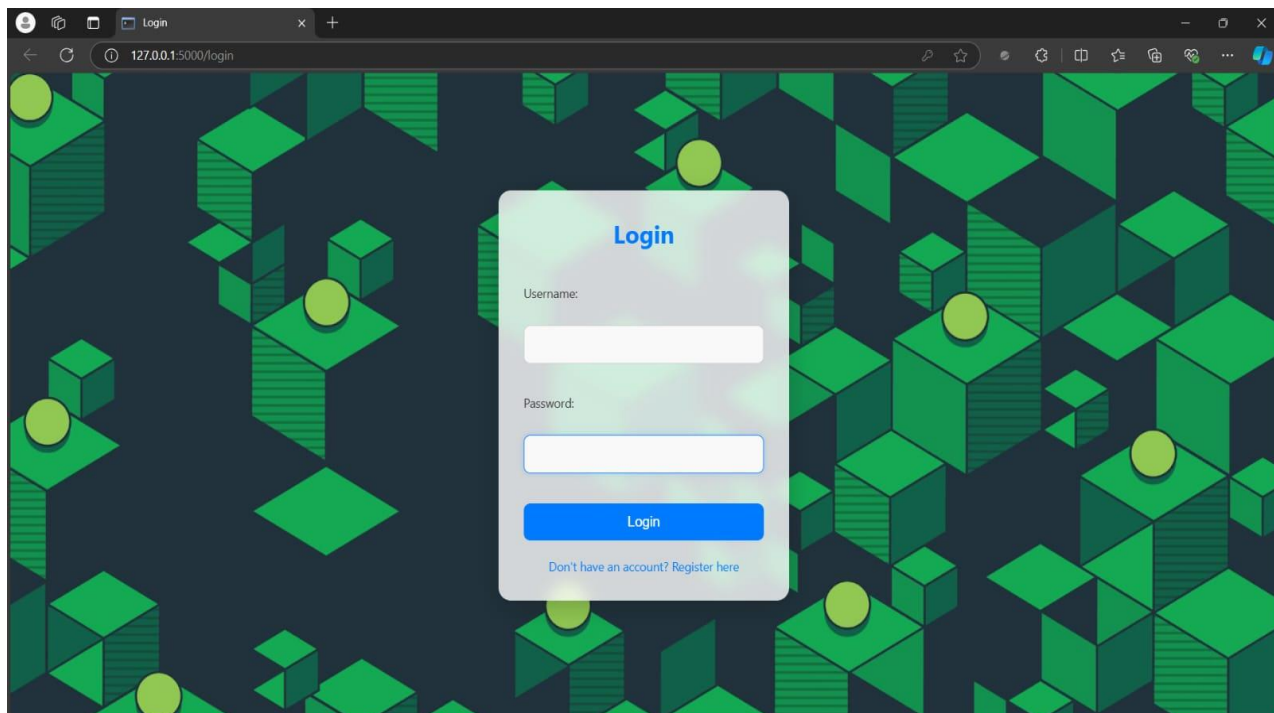
8.2 SCREENSHOTS :

REGISTRATION PAGE



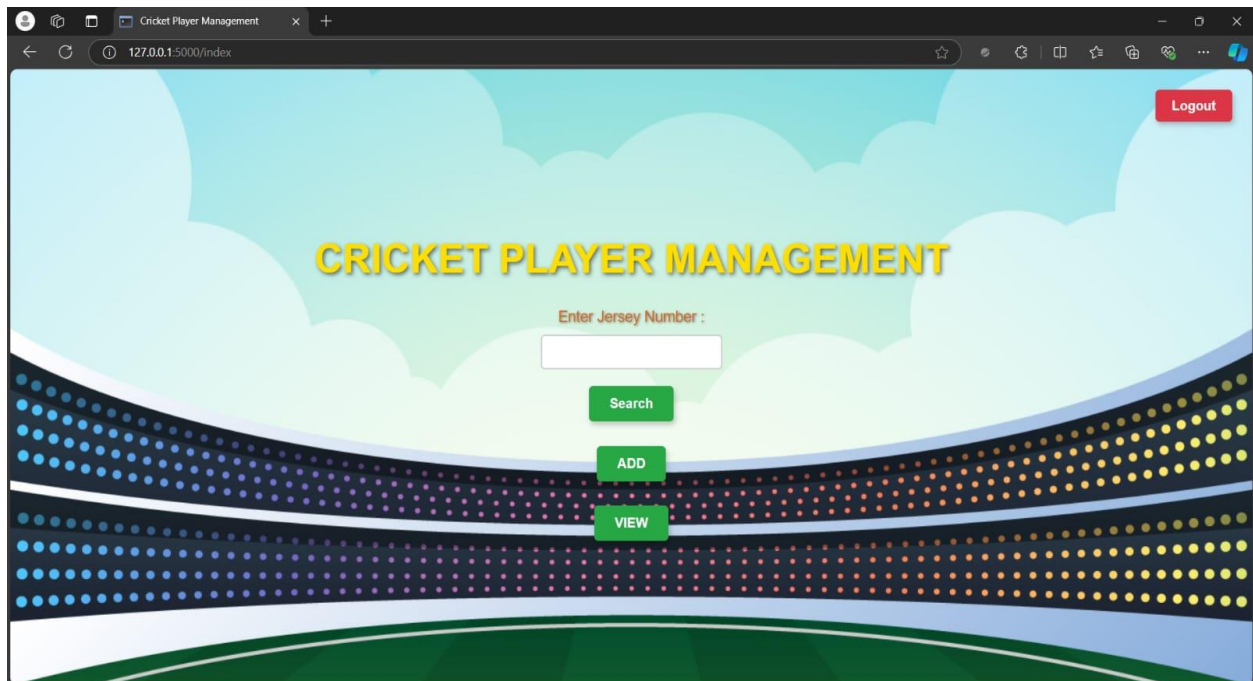
A screenshot of a web browser displaying the registration page. The browser's address bar shows the URL "127.0.0.1:5000/register". The page features a dark background with a pattern of green isometric cubes and yellow spheres. In the center, there is a white registration form titled "Register". The form includes two input fields labeled "Username:" and "Password:", a green "Register" button, and a link that says "Already have an account? Login here".

LOGIN PAGE



A screenshot of a web browser displaying the login page. The browser's address bar shows the URL "127.0.0.1:5000/login". The page features the same dark background with a pattern of green isometric cubes and yellow spheres as the registration page. In the center, there is a white login form titled "Login". The form includes two input fields labeled "Username:" and "Password:", a blue "Login" button, and a link that says "Don't have an account? Register here".

HOME PAGE

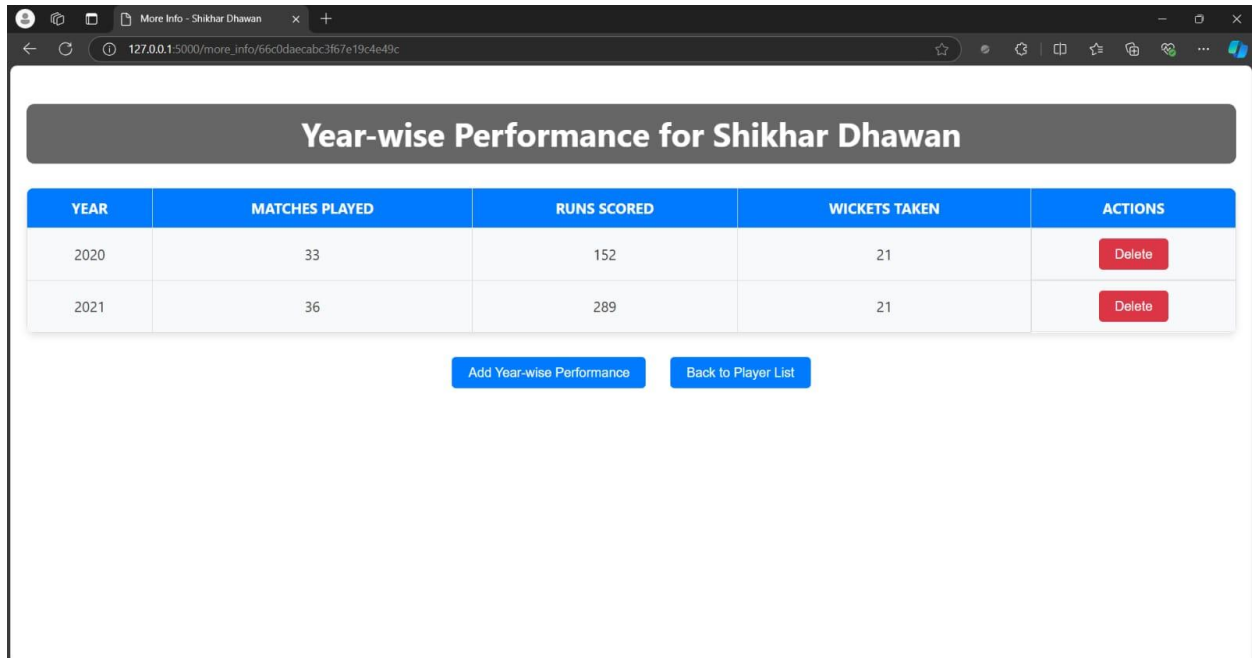


PLAYERS LIST

The screenshot shows the "Player's List" page of the web application. It features a "Back to Home" button in the top left corner. The main content is a table with the following data:

NAME	JERSEY NUMBER	MATCHES PLAYED	WICKETS TAKEN	RUNS SCORED	TYPE OF PLAYER	ACTIONS
Shikhar Dhawan	25	145	5	6500	Batsman	Update Delete
KL Rahul	1	40	0	1500	Wicket-keeper Batsman	Update Delete
MS Dhoni	7	350	0	10000	Wicket-keeper Batsman	Update Delete
Hardik Pandya	33	60	40	1000	All-rounder	Update Delete
Ravindra Jadeja	8	150	150	2000	All-rounder	Update Delete
Mohammed Shami	11	70	100	500	Bowler	Update Delete
Jasprit Bumrah	93	50	100	100	Bowler	Update Delete
Yuzvendra Chahal	3	40	70	100	Bowler	Update Delete
Kuldeep Yadav	23	30	50	50	Bowler	Update Delete

PERFORMANCES

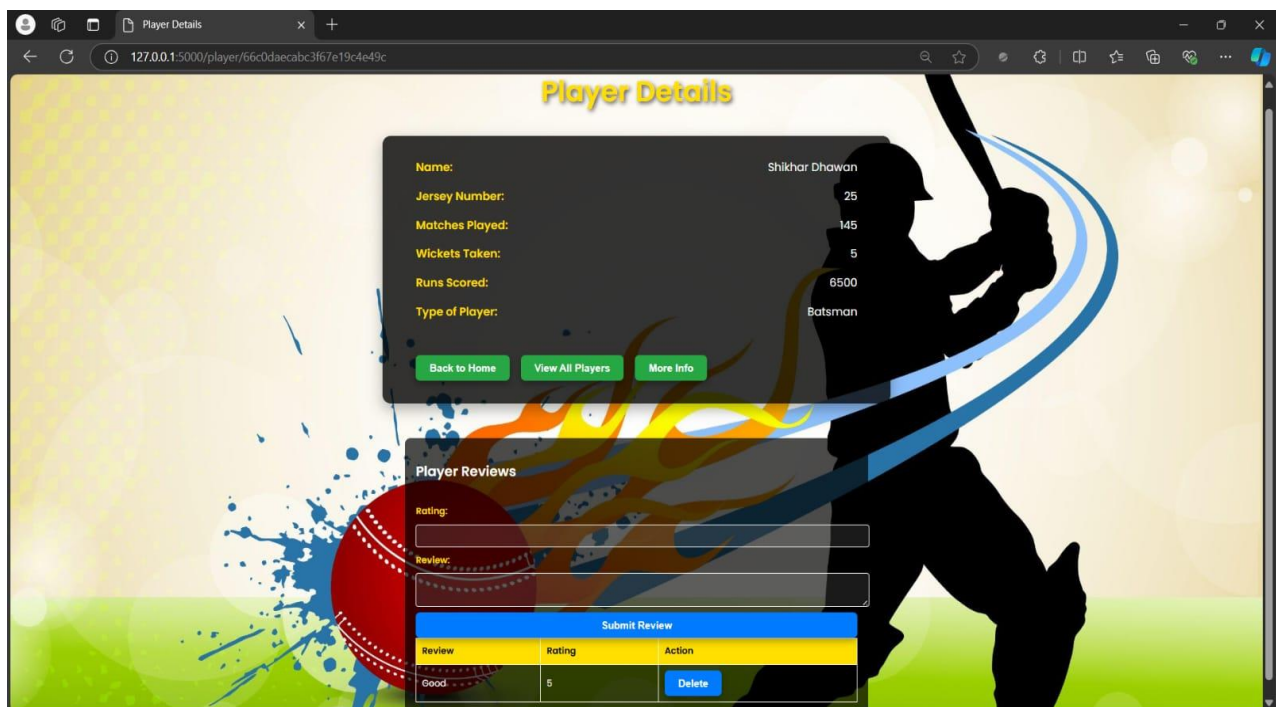


The screenshot shows a web browser window with the title 'More Info - Shikhar Dhawan'. The address bar shows the URL '127.0.0.1:5000/more_info/66c0daecabc3f67e19c4e49c'. The main content area has a header 'Year-wise Performance for Shikhar Dhawan' and a table with the following data:

YEAR	MATCHES PLAYED	RUNS SCORED	WICKETS TAKEN	ACTIONS
2020	33	152	21	Delete
2021	36	289	21	Delete

Below the table, there are two buttons: 'Add Year-wise Performance' and 'Back to Player List'.

RATINGS AND PLAYERS DETAILS



The screenshot shows a web browser window with the title 'Player Details'. The address bar shows the URL '127.0.0.1:5000/player/66c0daecabc3f67e19c4e49c'. The main content area has a header 'Player Details' and a form with the following details:

Name: Shikhar Dhawan
Jersey Number: 25
Matches Played: 145
Wickets Taken: 5
Runs Scored: 8500
Type of Player: Batsman

Below the form, there are three buttons: 'Back to Home', 'View All Players', and 'More Info'.

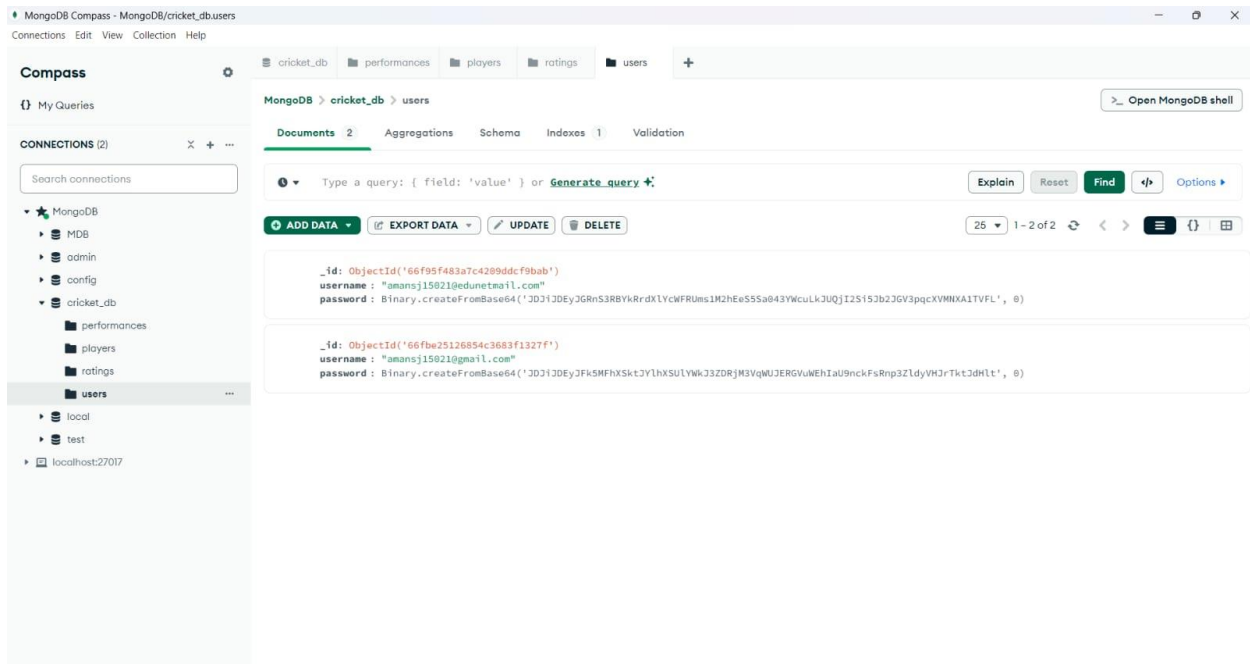
Below the buttons, there is a 'Player Reviews' section with a rating input field, a review text area, and a 'Submit Review' button.

Below the 'Submit Review' button, there is a table with the following data:

Review	Rating	Action
Good	5	Delete

8.3 DATABASE

USERS



MongoDB Compass - MongoDB/cricket_db.users

Connections Edit View Collection Help

cricket_db performances players ratings users +

Compass

My Queries

CONNECTIONS (2)

Search connections

MongoDB

- MDB
- admin
- config
- cricket_db
 - performances
 - players
 - ratings
 - users
- local
- test
- localhost:27017

MongoDB > cricket_db > users

Documents 2 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#)

Explain Reset Find Options

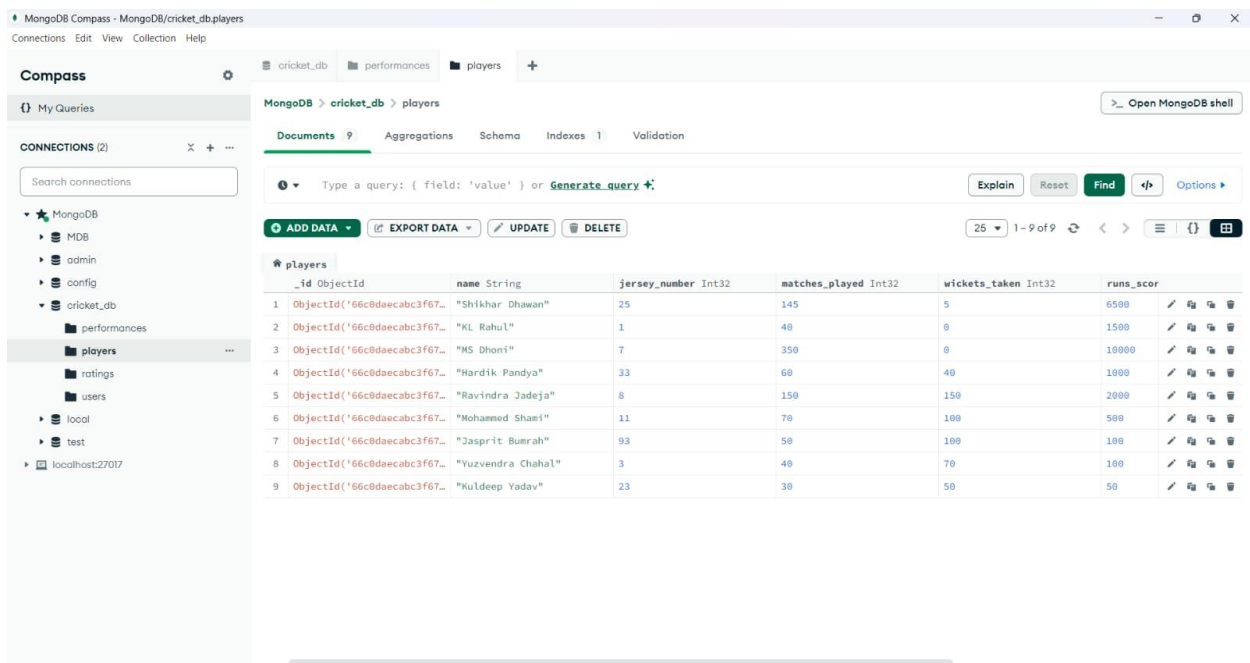
ADD DATA EXPORT DATA UPDATE DELETE

25 1 - 2 of 2

```
{ "_id": ObjectId("66f95f483a7c4289ddcf9bab"), "username": "amansj15821@edunetmail.com", "password": Binary.createFromBase64("JD31JDEyJG8nS3RBYkRrdlYcWFRUms1M2hEeS5Sa043YWcuLk3UQj1Z51S2b2GV3pqcXVMXA1TVFL", 0) }
```

```
{ "_id": ObjectId("66f95f483a7c4289ddcf9bab"), "username": "amansj15821@gmail.com", "password": Binary.createFromBase64("JD31JDEyJG8nS3RBYkRrdlYcWFRUms1M2hEeS5Sa043YWcuLk3UQj1Z51S2b2GV3pqcXVMXA1TVFL", 0) }
```

PLAYERS



MongoDB Compass - MongoDB/cricket_db.players

Connections Edit View Collection Help

cricket_db performances players +

Compass

My Queries

CONNECTIONS (2)

Search connections

MongoDB

- MDB
- admin
- config
- cricket_db
 - performances
 - players
 - ratings
 - users
- local
- test
- localhost:27017

MongoDB > cricket_db > players

Documents 9 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#)

Explain Reset Find Options

ADD DATA EXPORT DATA UPDATE DELETE

25 1 - 9 of 9

	_id	name	jersey_number	matches_played	wickets_taken	runs_scor
1	ObjectId("66c8daecabc3f67...")	"Shikhar Dhawan"	25	145	5	6500
2	ObjectId("66c8daecabc3f67...")	"KL Rahul"	1	48	8	1500
3	ObjectId("66c8daecabc3f67...")	"MS Dhoni"	7	350	8	10000
4	ObjectId("66c8daecabc3f67...")	"Hardik Pandya"	33	60	40	1800
5	ObjectId("66c8daecabc3f67...")	"Ravindra Jadeja"	8	150	150	2000
6	ObjectId("66c8daecabc3f67...")	"Mohammed Shami"	11	70	100	500
7	ObjectId("66c8daecabc3f67...")	"Jasprit Bumrah"	93	50	100	180
8	ObjectId("66c8daecabc3f67...")	"Yuzvendra Chahal"	3	40	70	100
9	ObjectId("66c8daecabc3f67...")	"Kuldeep Yadav"	23	30	50	50

PERFORMANCES

MongoDB Compass - MongoDB/cricket_db.performances

Connections Edit View Collection Help

Compass

My Queries

CONNECTIONS (2)

Search connections

- MongoDB
 - MDB
 - admin
 - config
 - cricket_db
 - performances
 - players
 - ratings
 - users
 - local
 - test
 - localhost:27017

MongoDB > cricket_db > performances

Documents 3 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#)

Explain Reset Find Options

ADD DATA EXPORT DATA UPDATE DELETE

25 1 - 3 of 3

```
{ "_id": ObjectId("66f960093a7c420ddcf9bad"),
  "player_id": ObjectId("66c0daecabc3f67e19c4e49f"),
  "year": 2020,
  "matches_played": 203,
  "runs_scored": 506,
  "wickets_taken": 23 }
```

```
{ "_id": ObjectId("66fed1e66e08209f2d8cdcb"),
  "player_id": ObjectId("66c0daecabc3f67e19c4e49c"),
  "year": 2020,
  "matches_played": 33,
  "runs_scored": 152,
  "wickets_taken": 21 }
```

```
{ "_id": ObjectId("6704ce7a98ed7e35840b42d7"),
  "player_id": ObjectId("66c0daecabc3f67e19c4e49c"),
  "year": 2021,
  "matches_played": 36,
  "runs_scored": 289,
  "wickets_taken": 21 }
```

RATINGS

MongoDB Compass - MongoDB/cricket_db.ratings

Connections Edit View Collection Help

Compass

My Queries

CONNECTIONS (2)

Search connections

- MongoDB
 - MDB
 - admin
 - config
 - cricket_db
 - performances
 - players
 - ratings
 - users
 - local
 - test
 - localhost:27017

MongoDB > cricket_db > ratings

Documents 1 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#)

Explain Reset Find Options

ADD DATA EXPORT DATA UPDATE DELETE

25 1 - 1 of 1

```
{ "_id": ObjectId("66fed734e1d10bfbeb5fa66"),
  "review": "Good",
  "rating": 5,
  "user_id": "66f95f483a7c4209ddcf9bab",
  "player_id": "66c0daecabc3f67e19c4e49c" }
```

9. FUTURE SCOPE AND ENHANCEMENTS

9.1. Advanced Analytics and Insights

- Performance Metrics: Implement advanced statistical analyses to provide deeper insights into player performance. This could include metrics like batting averages, strike rates, bowling economy, and more.
- Predictive Analytics: Use machine learning models to predict player performance based on historical data, player conditions, and match scenarios.

9.2. User Personalization

- Tailored Recommendations: Develop algorithms that suggest players to users based on their preferences and past interactions.
- Custom Dashboards: Allow users to create personalized dashboards that focus on specific players, teams, or performance metrics.

9.3. Interactive Features

- Real-time Updates: Integrate real-time data feeds to provide live scores and player performance updates during matches.
- User Contributions: Enable users to submit their ratings and reviews for players, fostering a community-driven evaluation system.

9.4. Enhanced Player Profiles

- Detailed Stats: Expand player profiles to include comprehensive statistics, career timelines, and highlight reels.
- Injury Reports: Add functionality to track player injuries and their impact on performance and ratings.

9.5. Gamification

- Achievements and Badges: Introduce gamification elements, such as earning badges for user participation, sharing insights, or engaging in discussions.

- Social Media Integration: Allow users to share their favorite players or performance stats on social media plat

10. CONCLUSION

The proposed project seeks to transform fan engagement in cricket by leveraging advanced analytics and user personalization. By implementing sophisticated statistical analyses and machine learning models, we aim to provide deeper insights into player performance, empowering users to make informed predictions and decisions. Personalized features, such as tailored recommendations and customizable dashboards, will enhance user experience, allowing fans to focus on their favorite players and metrics. Real-time updates and community contributions will foster a dynamic atmosphere, encouraging collaboration and lively discussions among users.

Additionally, enhanced player profiles will deliver comprehensive statistics, career timelines, and injury reports, providing crucial context to performance evaluations. The integration of gamification elements, like fantasy leagues and achievement badges, will motivate users to actively participate and engage with the platform. By building community engagement through forums and social media integration, we aim to create a vibrant ecosystem where fans can share insights and experiences, ultimately enriching the cricket community and establishing a data-driven culture within the sport.

11. REFERENCES

- 11.1 Abraham Silberschatz, Henry F. Korth, Sudarshan, “Database System Concepts,” 7th edition, March 2019, McGraw Hill Publication.
- 11.2 Raghu Ramakrishnan, Johannes Gehrke, “Database Management Systems,” McGraw Hill Publication.
- 11.3 HTML5, “A Web-Based Front-End Technology,” <https://developer.mozilla.org/en-US/docs/Web/Guide/HTML/HTML5>
- 11.4 CSS, “Cascading Style Sheets: Web Page Styling,” <https://developer.mozilla.org/en-US/docs/Web/CSS>
- 11.5 Flask - <https://flask.palletsprojects.com/en/latest/>
- 11.6 Python.org, “Python Documentation,” <https://docs.python.org/3/>.
- 11.7 MongoDB, “MongoDB Manual,” <https://www.mongodb.com/docs/manual/>
- 11.8 MongoDB University Course - <https://university.mongodb.com/courses>
- 11.9 Flask Documentation - <https://flask.palletsprojects.com/en/2.3.x/>
- 11.10 MongoDB Documentation - <https://www.mongodb.com/docs/manual/>
- 11.11 Flask-Login Documentation - <https://flask-login.readthedocs.io/en/latest/>
- 11.12 bcrypt Documentation - <https://pypi.org/project/bcrypt/>
- 11.13 Pymongo Documentation - <https://pymongo.readthedocs.io/en/stable/>