



A

PROJECT REPORT ON

“Adventure Map Website System”

BACHELOR OF BUSINESS ADMINISTRATION (COMPUTER
APPLICATION) T.Y.BBA(C.A.) SEM V

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SUBMITTED TO

Savitribai Phule Pune University

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CERTIFICATE

This is certified that Buddhivant Tejas & Gatkul Somnath students Bachelor of Business Administration (Computer Application)

T.Y.BBA(C.A.) semester V has satisfactory completed the project work on “**Adventure Map Website System**” as per the syllabus laid down by the Savitribai Phule Pune University during the academic year 2024-2025

Date :-

Exam seat no

Exam seat no

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Internal Examiner

External Examiner

ACKNOWLEDGEMENT

First of all, while presenting this project I express my sincere gratitude to almighty god for his grace and blessing that helped me to complete this project work successfully.

We are also grateful to our teachers Prof. Asha mane mam for their encouragement, help and support from time to time I have been benefited by their valuable guidance, able support constructive suggestions and rich experience in the field of software development.

I would also like to express my deep sense of obligation and reverence to my parents for their constant support without whom this. Work not have been seen the light of the day.

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Buddhivant Tejas Ganesh

Gatkul somnath Dajiba

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1.INTRODUCTION

1.1 Profile of System

1. User Profiles

- Track individual activities, earned points, and collected badges.
- Customizable profiles that display achievements, badges, and adventure progress.

2. Challenges & Quests

- Users complete location-based challenges, such as checking in or visiting specific places.
- Scavenger hunts and location discoveries as gamified quests.
- Completing challenges awards points and badges.

3. Points & Badge System

- Users earn points for completing challenges and quests.
- Badges are awarded for achieving milestones or specific objectives.
- Points contribute to the leaderboard ranking.

4. Leaderboard

- Ranks users based on their accumulated points.
- Competitive element to encourage participation and exploration.

1.2 Scope of System

- **Registration and Authentication:** Users can create accounts and securely log in.
- **Profile Management:** Ability to update personal information and track points and badges.
- **Interactive Map:** Displays nearby locations with detailed information and custom markers.
- **Points and Badges:** Users earn points for visiting locations and can view badge progress.
- **Leaderboards:** Compare points with friends and other users.
- **Exploration Challenges:** Participate in challenges for additional points and badges.
- **Reviews and Feedback:** Leave reviews and ratings for visited locations.

1.3 Purpose of System

The Adventure Map Web App is designed to encourage exploration and foster a sense of adventure by motivating users to discover and engage with nearby locations. Through gamification, the app incorporates a points and badges system, making participation in activities and challenges enjoyable and rewarding. It promotes community building by allowing users to share their experiences through reviews and feedback, creating a network of explorers who can learn from one another. Additionally, the app highlights local businesses and attractions, driving traffic to these locations. User engagement is enhanced through features like leaderboards and exploration challenges, fostering competition and social interaction among users. The system also collects valuable data on user preferences and behaviors, enabling improvements and personalized experiences. An administrative interface allows for effective management of users, locations, and content, ensuring the app remains safe, relevant, and user-friendly. Overall, the Adventure Map Web App aims to enrich users' experiences while providing essential tools for managing and promoting local attractions.

2 SYSTEM ANALYSIS

2.1 FEASIBILITY STUDY

Economical feasibility : -

Economical analysis is the most frequently used technique for evaluating the effectiveness of a proposed system. If benefits outweigh costs, a decision is taken to design and implement the system.

Technical Feasibility : -

This is concerned with specifying equipment and software that will successfully satisfy the user requirements. The technical needs of the system may vary considerably, but might include

Facility to communicate data to distant locations.

Response time under certain conditions.

Operational Feasibility:-

This is mainly related to human organizational and political aspects. The points to be considered are:

What changes will be brought with the system ? What organizational structure is disturbed.

2.2 Fact Finding Technique

- **Interviews:**

- Conducting one-on-one or group interviews with stakeholders, such as users, administrators, and business owners, to gather detailed insights and requirements.
- Pros: Direct feedback, ability to clarify doubts, and explore in-depth issues.
- Cons: Time-consuming and may be biased based on the interviewee's perspective.

- **Surveys and Questionnaires:**

- Distributing structured surveys or questionnaires to a larger audience to collect quantitative data about user needs and preferences.
- Pros: Can reach a wide audience quickly and provide statistical data.
- Cons: Limited depth of information and potential misunderstanding of questions.

- **Observation:**

- Observing users as they interact with existing systems or perform relevant tasks to understand workflows and pain points.
 - Pros: Provides real-world insights into user behavior and system usage.
 - Cons: May not capture the full context or reasons behind actions.
-
- **Document Analysis:**
 - Reviewing existing documentation, reports, user manuals, and system specifications to understand current functionalities and requirements.
 - Pros: Provides background information and identifies existing issues or gaps.
 - Cons: Documents may be outdated or incomplete.

2.3 HARDWARE & SOFTWARE REQUIREMENT

HARDWARE :-

- 1 Intel Pentium 3 processor or higher
- 2 RAM 256 MB
- 3 40 GB HDD (Hard Disk)
- 4 CD Drive 16X or higher

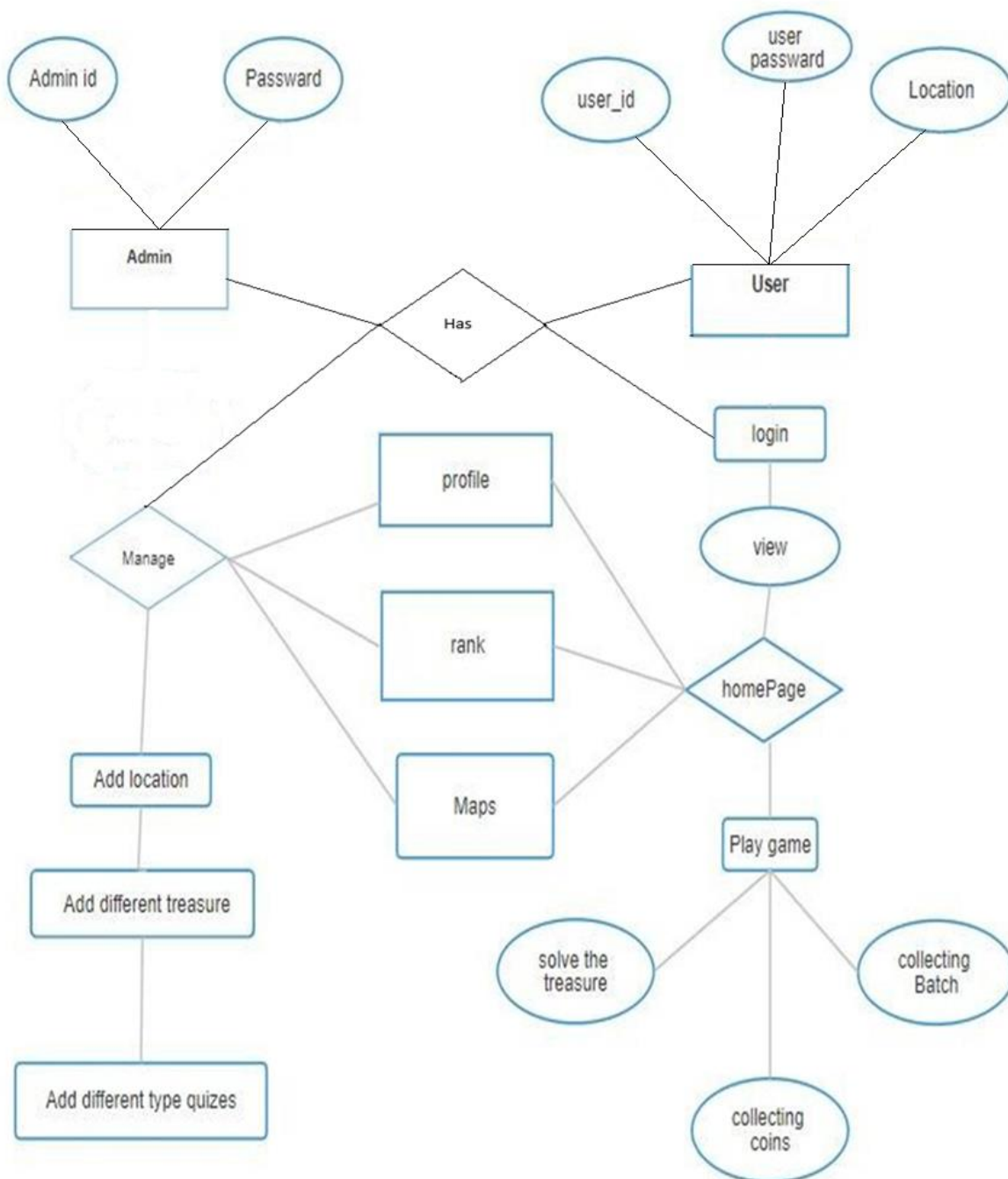
SOFTWARE :-

1. OPERATING SYSTEM : MICROSOFT WINDOWS.
2. FRONT END TOOL : COREJAVA .
3. BACK END : MYSOL .

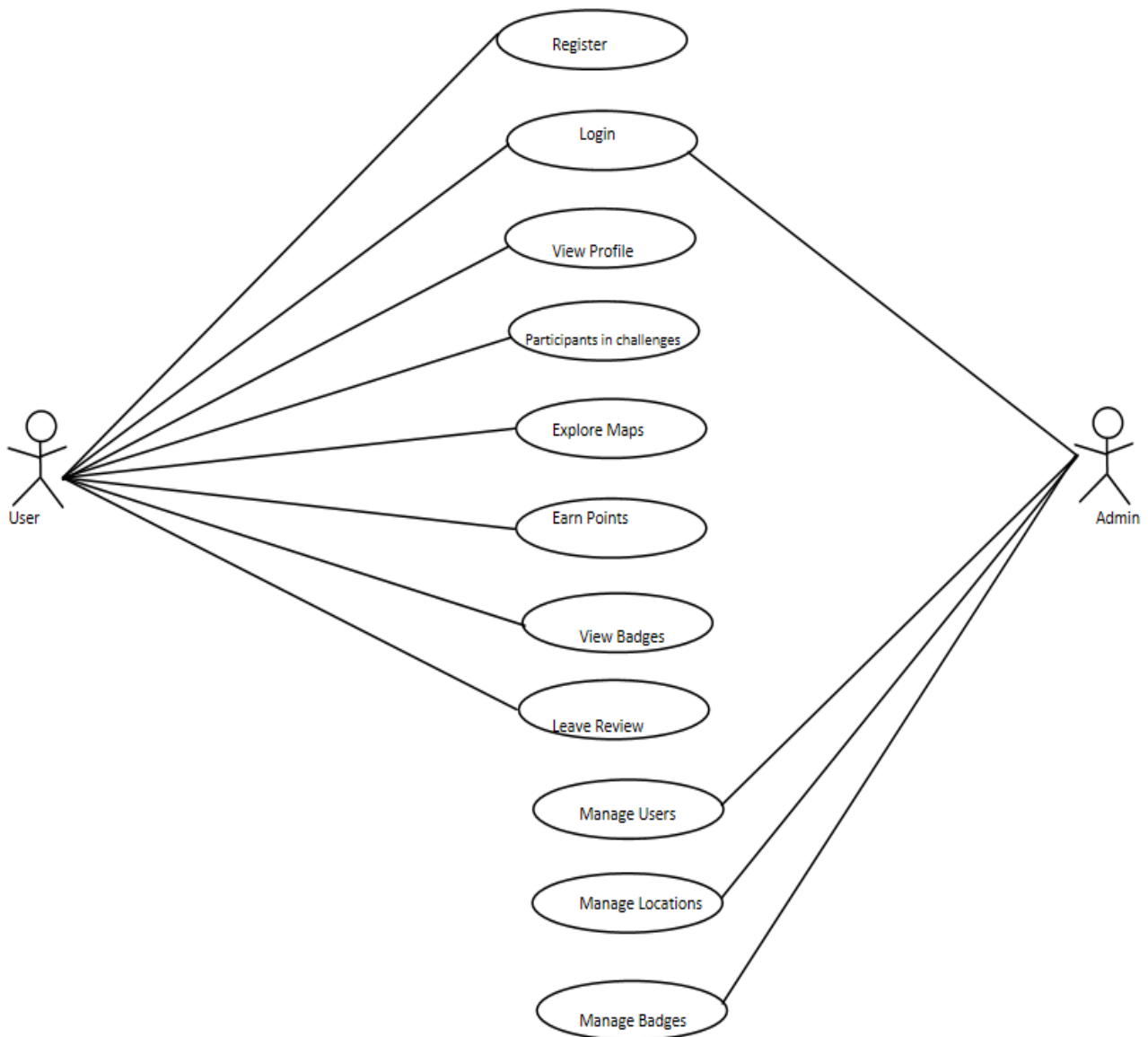
3 SYSTEM DESIGN

3.1 Entity Relationship Diagram

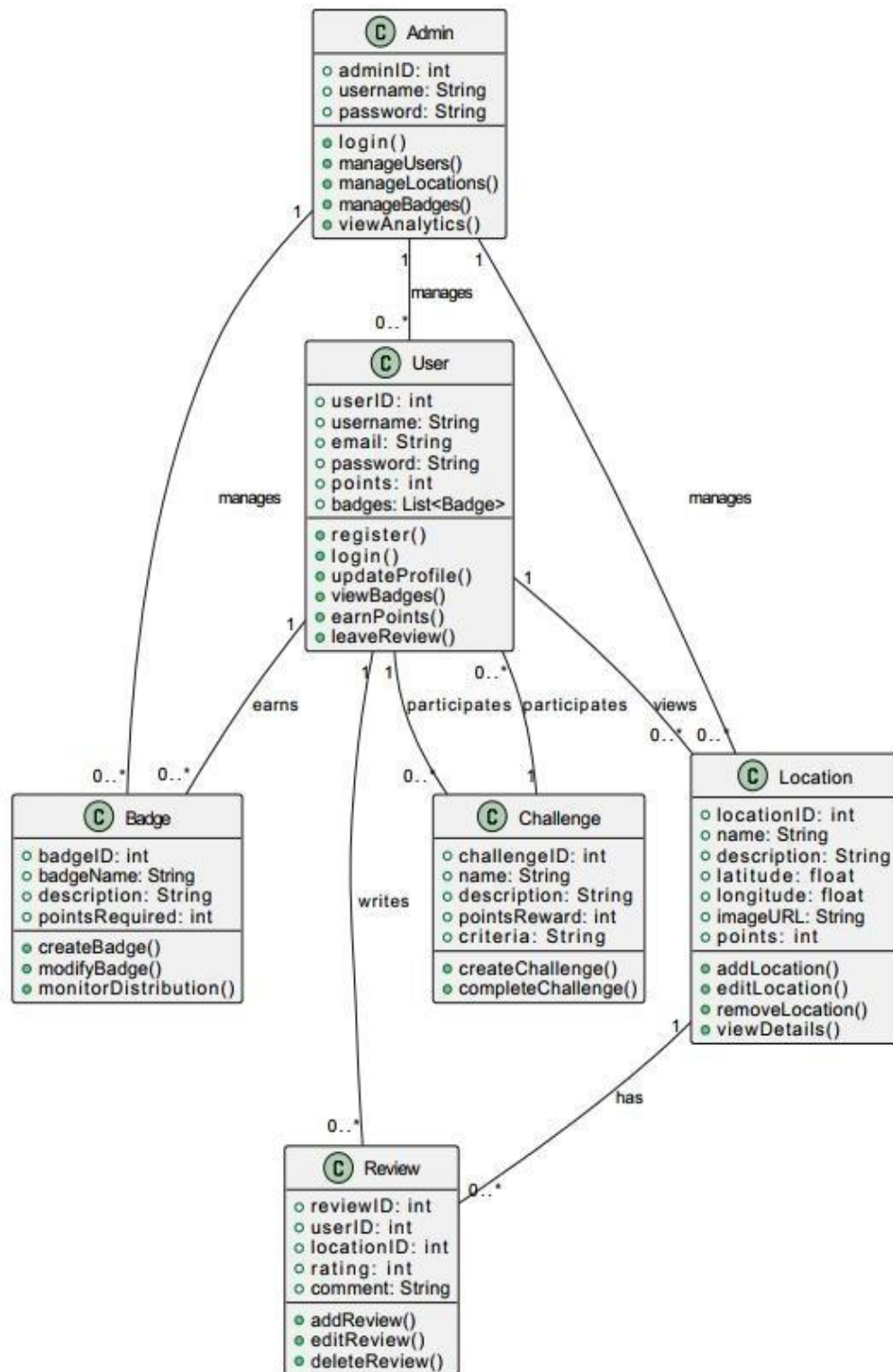
Adventure maps Webapplication



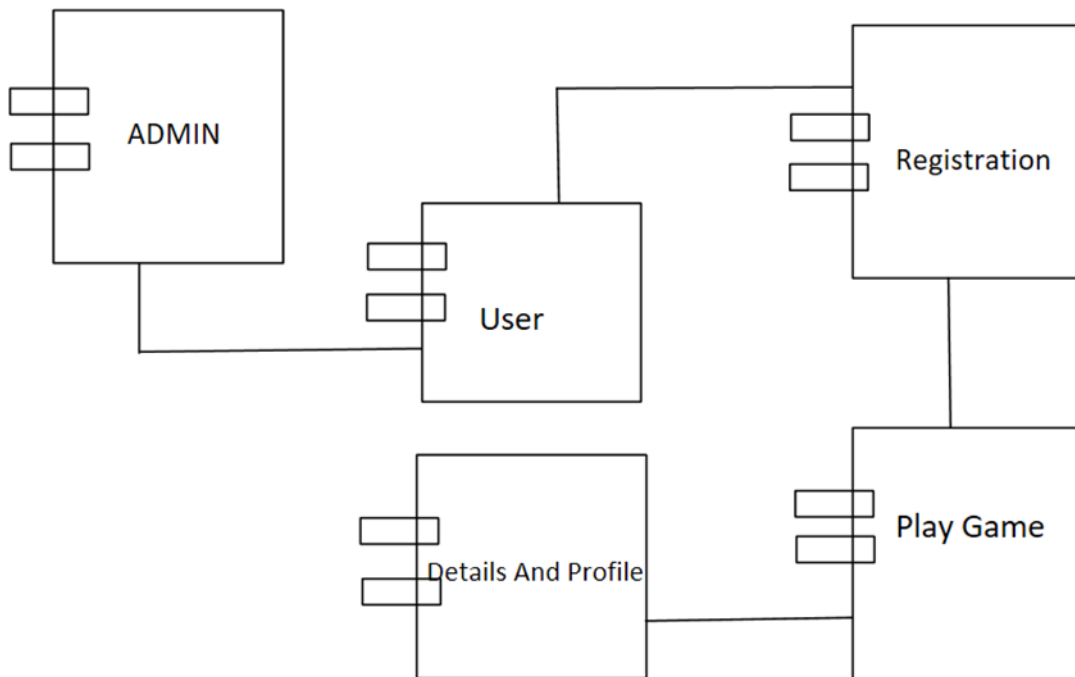
3.2 Use Case Diagram



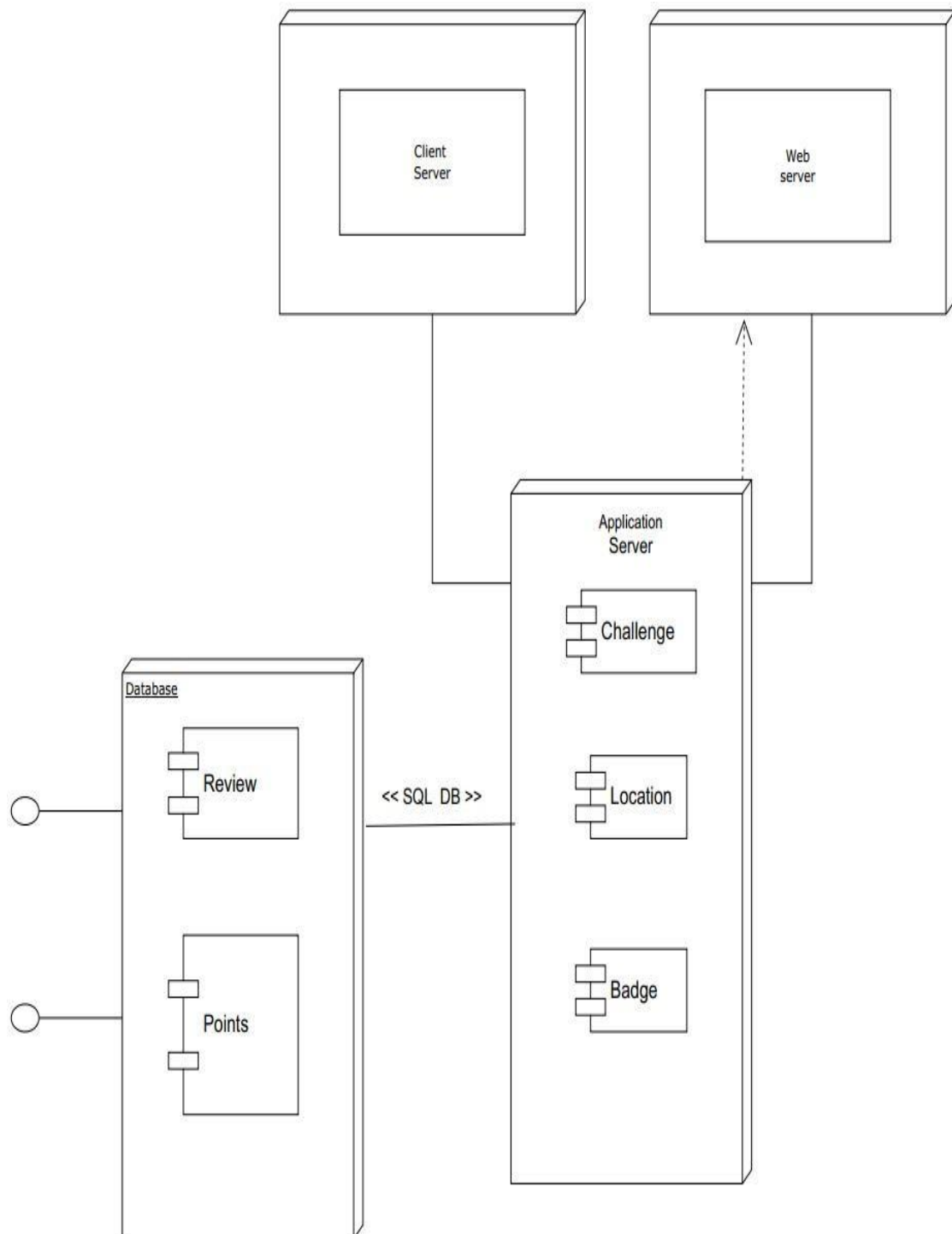
3.3 Class Diagram



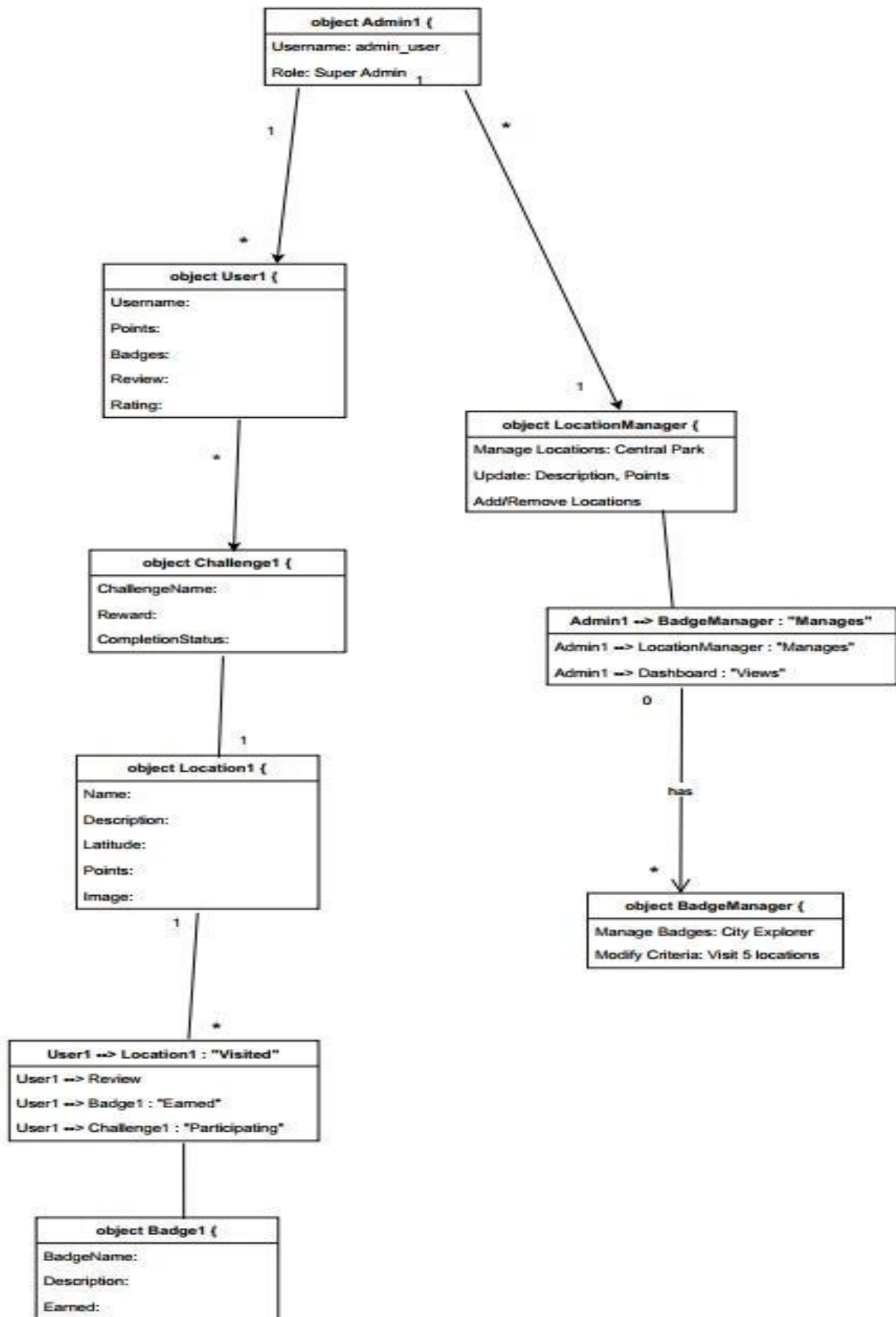
3.4 Component Diagram



3.5 Deployment Diagram



3.6 Object Diagram



3.7 File Design

1. Users Data File:

Field Name	Description	Data Type
user_id	Unique identifier for each user	INT (Primary Key)
username	Username selected by the user	VARCHAR(50)
email	Email address of the user	VARCHAR(100)
password	Hashed password for secure authentication	VARCHAR(255)
profile_pic	URL to the user's profile picture	VARCHAR(255)
total_points	Total accumulated points by the user	INT
created_at	Date and time of user registration	TIMESTAMP
last_login	Last login date and time of the user	TIMESTAMP

2. Badges Data File:

Field Name	Description	Data Type
badge_id	Unique identifier for each badge	INT (Primary Key)
badge_name	Name of the badge	VARCHAR(50)
description	Description of the badge	TEXT
badge_image	URL to the badge image	VARCHAR(255)
badge_criteria	Criteria required to earn the badge	VARCHAR(255)
points_reward	Points awarded for earning the badge	INT
Field Name	Description	Data Type
badge_id	Unique identifier for each badge	INT (Primary Key)

3 Challenges Data File:

Field Name	Description	Data Type
challenge_id	Unique identifier for each challenge	INT (Primary Key)
challenge_name	Name of the challenge	VARCHAR(100)
description	Detailed description of the challenge	TEXT
challenge_type	Type of challenge (e.g., location-based, task-based)	VARCHAR(50)
start_date	Start date and time of the challenge	TIMESTAMP
end_date	End date and time of the challenge	TIMESTAMP
reward_badge_id	Badge awarded upon completion	INT (Foreign Key)
reward_points	Points awarded upon completion	INT

4. Leaderboard Data File:

Field Name	Description	Data Type
leaderboard_id	Unique identifier for the leaderboard entry	INT (Primary Key)
user_id	Reference to the user on the leaderboard	INT (Foreign Key)
rank	User's rank on the leaderboard	INT
total_points	User's total points	INT
updated_at	Date and time of the last leaderboard update	TIMESTAMP
Field Name	Description	Data Type
leaderboard_id	Unique identifier for the leaderboard entry	INT (Primary Key)

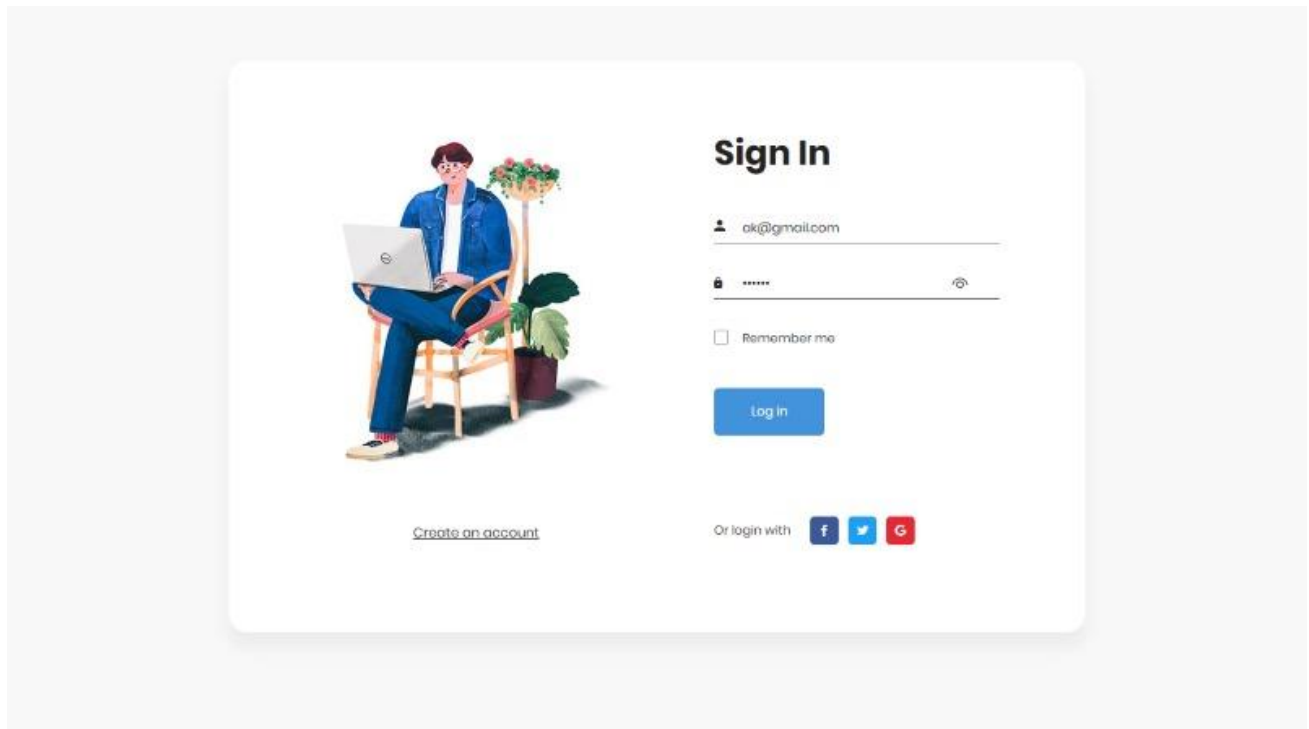
4.4 Data Dictionary

Table Name	Field Name	Data Type	Description
Users	user_id	INT (PK)	Unique identifier for each user
	username	VARCHAR(50)	User's chosen username
	email	VARCHAR(100)	User's email address
	password	VARCHAR(255)	Hashed user password
	profile_pic	VARCHAR(255)	URL to user's profile picture
	total_points	INT	Accumulated points by the user
	created_at	TIMESTAMP	Date and time the user was registered
	last_login	TIMESTAMP	Date and time of last user login

4 FORMS AND REPORT

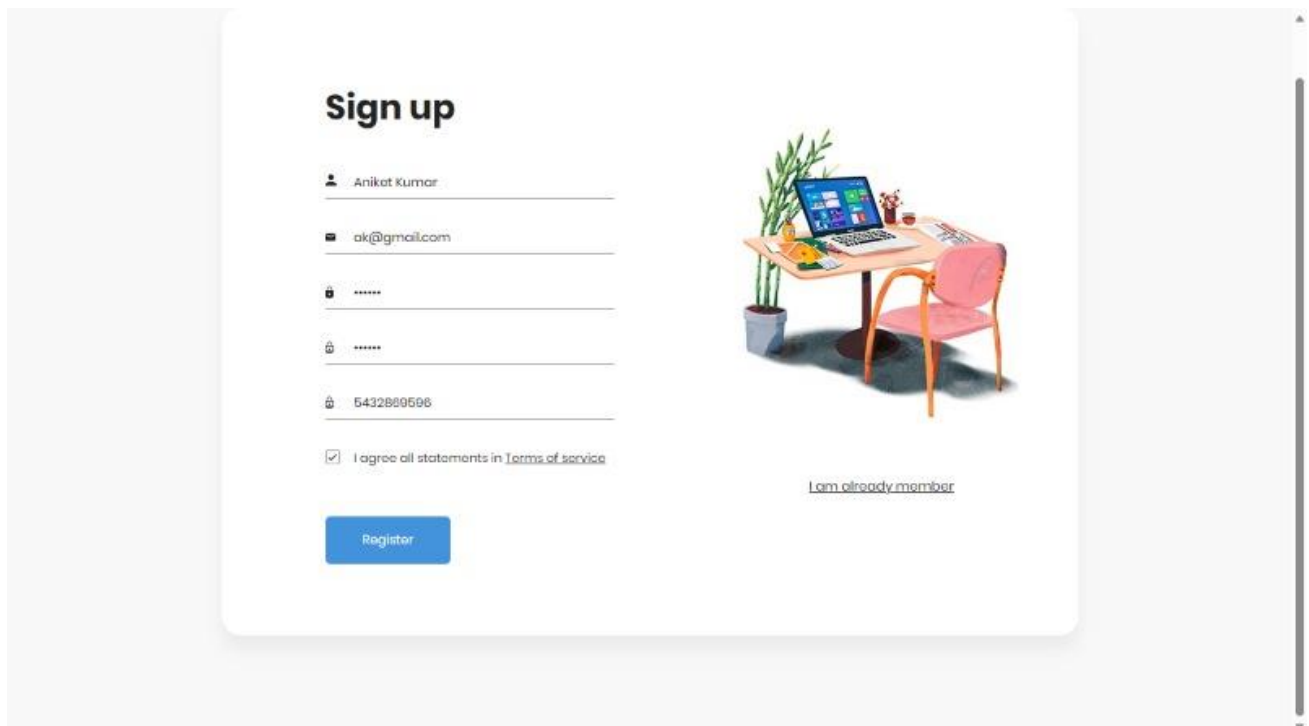
4.1 Input & output screens

Login form :



A login form mockup with a light gray background. On the left, there is an illustration of a person with red hair and glasses sitting on a yellow chair, using a laptop, with a potted plant next to them. The form itself is a white rounded rectangle. At the top left of the form is the text "Sign In". Below it are two input fields: the first contains the email "ak@gmail.com" and the second contains masked characters "*****" with an eye icon for toggling visibility. Below the password field is a checkbox labeled "Remember me". A blue "Log in" button is positioned below the checkbox. At the bottom left of the form is a link "Create an account". At the bottom right is the text "Or login with" followed by three social media icons: Facebook, Twitter, and Google+.

Sign up Form :



A sign up form mockup with a light gray background. On the left, there is an illustration of a desk with a laptop, a potted plant, and a pink chair. The form is a white rounded rectangle. At the top left of the form is the text "Sign up". Below it are five input fields: the first contains the name "Aniket Kumar", the second contains the email "ak@gmail.com", the third and fourth contain masked characters "*****", and the fifth contains the phone number "5432880508". Below the phone field is a checkbox labeled "I agree all statements in Terms of service". A blue "Register" button is at the bottom left. At the bottom right is a link "I am already member".

4.2 Admin Forms

Admin Login :

Login Page

127.0.0.1:5500/index.html

Login

User ID

Enter your user ID

Password

Enter your password

Login

[Don't have an account? Register](#)

Admin Dashboard :

Admin Dashboard

Location Input

Enter Latitude:

Latitude

Enter Longitude:

Longitude

Create New Location

User List

Username	Actions
JohnDoe	Edit Delete
JaneSmith	Edit Delete

Manage Locations

Location	Latitude	Longitude	Actions
Location 1	40.7128	-74.0060	Edit Delete
Location 2	34.0522	-118.2437	Edit Delete

USD/JPY +1.22%

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5. Testing

Testing the Adventure Map web application is crucial to ensure a seamless and engaging user experience, while also maintaining system performance and reliability. The testing process will cover multiple aspects, including functional, usability, performance, security, and compatibility testing.

Black Box Testing :

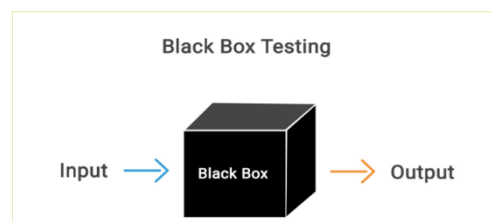
Black box testing focuses on testing the functionality of the application without knowledge of the internal code or structure. The tester interacts with the system by inputting data and analyzing the output, ensuring that the system behaves as expected.

1. Functional Testing:

- User Registration & Login: Input valid and invalid credentials to verify if the registration and login processes work correctly.
- Map Interaction: Test map functionality by zooming, searching locations, and verifying if markers appear on the map when users check-in at places.
- Badges & Points: Earn badges by completing challenges and check if the badges and points are awarded and reflected in the user's profile.

2. Usability Testing:

- Test the ease of navigation within the app, such as moving between the map, profile, challenges, and leaderboards.
- Ensure that error messages are displayed for invalid actions, such as entering incorrect login information.



6. Advantages & Limitation

6.1 Advantages

1. **Real-World Interaction:**

- Encourages players to explore their surroundings and engage with their communities.

2. **Customizability:**

- The Google Maps API allows for significant customization, enabling you to tailor the experience to fit your game's theme and objectives.

3. **Scalability:**

- You can easily add new locations, quizzes, and badges, allowing the game to grow over time.

4. **Rich Data:**

- Leverage existing geographic data to create informative and engaging quizzes about various locations.

5. **User Engagement:**

- The combination of physical activity, exploration, and gamification can enhance user engagement and retention.

6. **Social Features:**

- Players can share their achievements and experiences, promoting community interaction and potentially attracting new players.

6.2 Disadvantages

1. Location Dependency:

- The game relies on users being in specific physical locations, which may limit participation for those who cannot travel easily.

2. Privacy Concerns:

- Tracking users' locations can raise privacy issues; you'll need to handle data securely and transparently.

3. Technical Challenges:

- Implementing geolocation and integrating with the Google Maps API may require advanced technical skills and maintenance.

4. Competition:

- There are many existing location-based games, so standing out in the market can be challenging.

7 Conclusion

Creating an adventure map game using the Google Maps API offers an engaging way to encourage exploration and interaction with real-world locations. The advantages include real-world interaction, customization, scalability, and enhanced user engagement through social features. However, challenges such as location dependency, privacy concerns, technical complexities, and competition must be carefully managed.

In conclusion, if effectively executed, this system can provide a unique and rewarding experience for players, blending physical activity with gamification, while also fostering community involvement. Careful planning and user-centric design are key to overcoming potential drawbacks and ensuring success.

8 Future Enhancement

1. Augmented Reality (AR) Integration

- **Feature:** Implement AR features that overlay digital elements onto the real world, enhancing the immersive experience.
- **Benefit:** Players can interact with virtual objects at real-world locations, making the game more engaging and visually appealing.

2. AI-Driven Personalization

- **Feature:** Use AI to analyse player behaviour and preferences to tailor quizzes, challenges, and routes.
- **Benefit:** Personalized experiences can increase user satisfaction and retention.

3. Dynamic Content Updates

- **Feature:** Enable real-time updates to quizzes and challenges based on current events, seasonal themes, or player feedback.
- **Benefit:** Keeping content fresh encourages players to return and engage regularly.

4. Enhanced Social Features

- **Feature:** Integrate more social elements, such as team challenges, multiplayer modes, and community events.
- **Benefit:** Fosters a sense of community and competition, making the game more interactive.

5. Gamified Learning Experiences

- **Feature:** Collaborate with educational institutions to create learning-focused challenges related to local history, ecology, or culture.

9 References

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2. WWW.YOUTUBE.COM
3. <https://www.geeksforgeeks.org/python-django/>
4. <https://www.javatpoint.com>
5. <https://www.w3schools.org/>

Book Reference: -

1.Core java

(Third Year TY BBA (CA) Semester 5)

2.Object Oriented Software Engineering

(Third Year TY BBA (CA) Semester 5)

Thank You