A

PROJECT REPORT ON

"Adventure Map Web-app"

BACHELOR OF BUSINESS ADMINISTRATION (COMPUT ER APPLICATION)

T.Y.BBA(C.A.) SEM V

2024-2025

SUBMITTED TO

Savitribai Phule Pune University

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UNDER THE GUIDENCE OF

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DEPARTMENT of BBA(C.A)

CERTIFICATE

This is certified that Buddhivant Tejas & Gatkul Somnath students Bachelor of Business Administration (Computer Application) T.Y.BBA(C.A.) SEM V has satisfactory completed the project work on "**Adventure Map Web-app**" 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
Project In charge	Head of Department
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.

I am also thanks to my teachers for their support and helping

to our system project.

Buddhivant Tejas Ganesh

Gatkul somnath Dajiba

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INTRODUCTION

Welcome to newly designed website тhe Adventure Map Web App is a dynamic platform designed to engage users in exploring their local environments while earning points and achievements through participation in various activities. By utilizing a user-friendly interface combined with interactive mapping technologies, this application allows users to discover nearby locations, leave feedback, and compete with friends on a breadboard.

1.1 Profile of System

The Adventure Map web application is a gamified platform designed to encourage users to explore new locations using an interactive Google Maps interface. The core of the system revolves around user profiles, where individuals can track their activities, earn points, and collect badges for completing challenges and quests. These challenges may involve visiting specific locations, checking in at places, or participating in scavenger hunts. Each user has a customizable profile that showcases their achievements, badges, and points earned through their adventures.

The application integrates Google Maps API to display real-time maps, allowing users to zoom in and out, navigate through regions, and discover points of interest. A leaderboard adds a competitive edge, ranking users based on their accumulated points and encouraging ongoing participation. Additionally, users can share their achievements and badges on social media, adding a social element to the experience.

On the technical side, the application is built with a user-friendly web interface using HTML, CSS, and JavaScript, while the backend manages user data, badges, challenges, and interactions. The gamification of the system, with features like badge-earning, leveling up, and social sharing, creates an engaging environment for users to keep exploring new locations.

1.2SCOPE OF THE 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 SYSYTEM

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.

SYSTEM ANALYSIS

2.1 FEASIBILITY STUDY

A. Economical feasibility : -

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

B. <u>Technical Feasibility : -</u>

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

Facility to communicate data to distant locations.

Response time under certain conditions.

C. Operational Feasibility:-

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

What changes will be brought with the system ?

What organizational structure is disturbed

D. **Social feasibility :** Social feasibility is a detailed study on how one interacts with others within a system or an organization.

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 :-

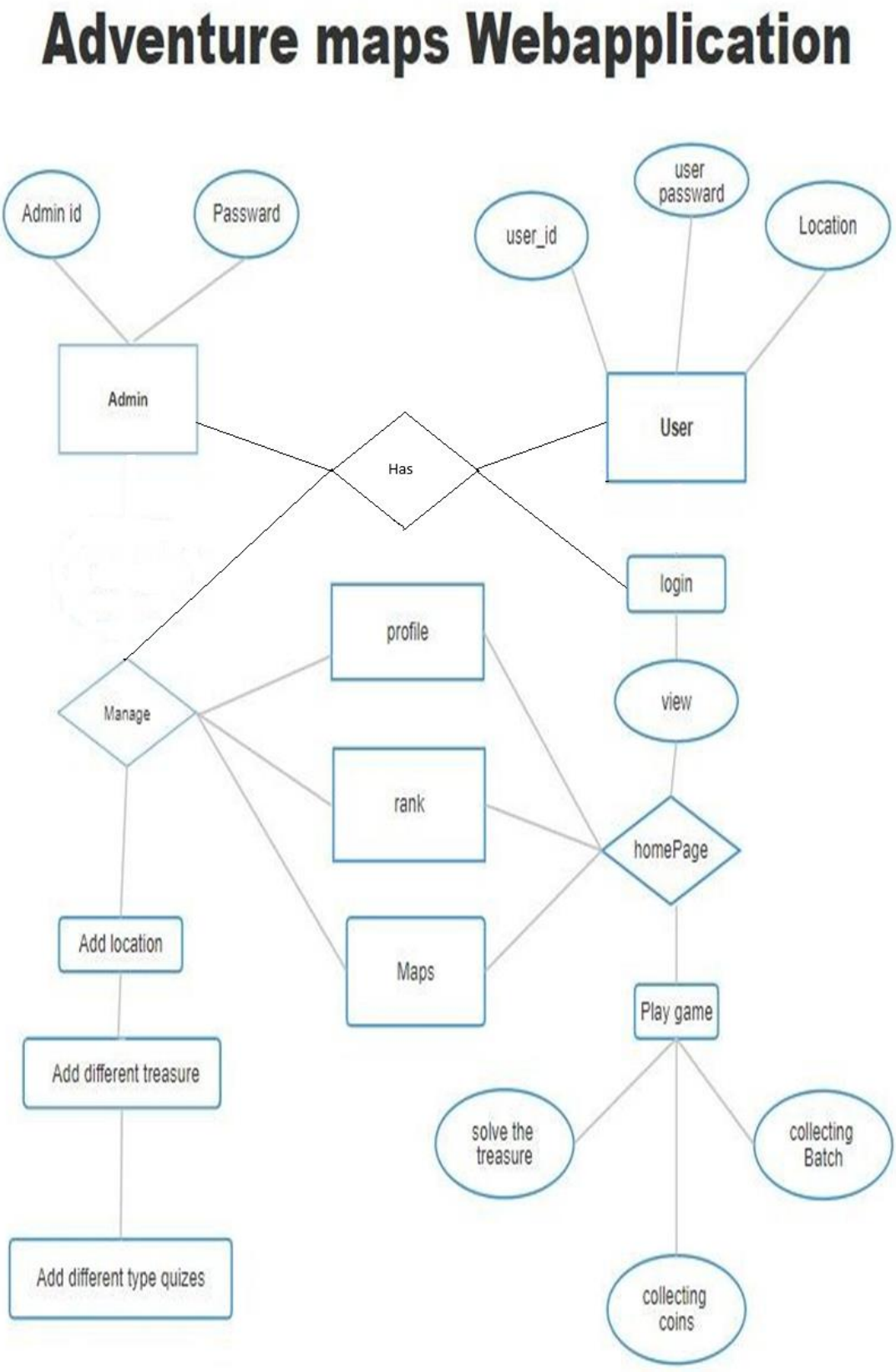
1 Intel Pentium 3 processor or higher
2 RAM 256 MB
3 40 GB HDD (Hard Disk)
4 CD Drive 16X or higher

SOFTWARE :-

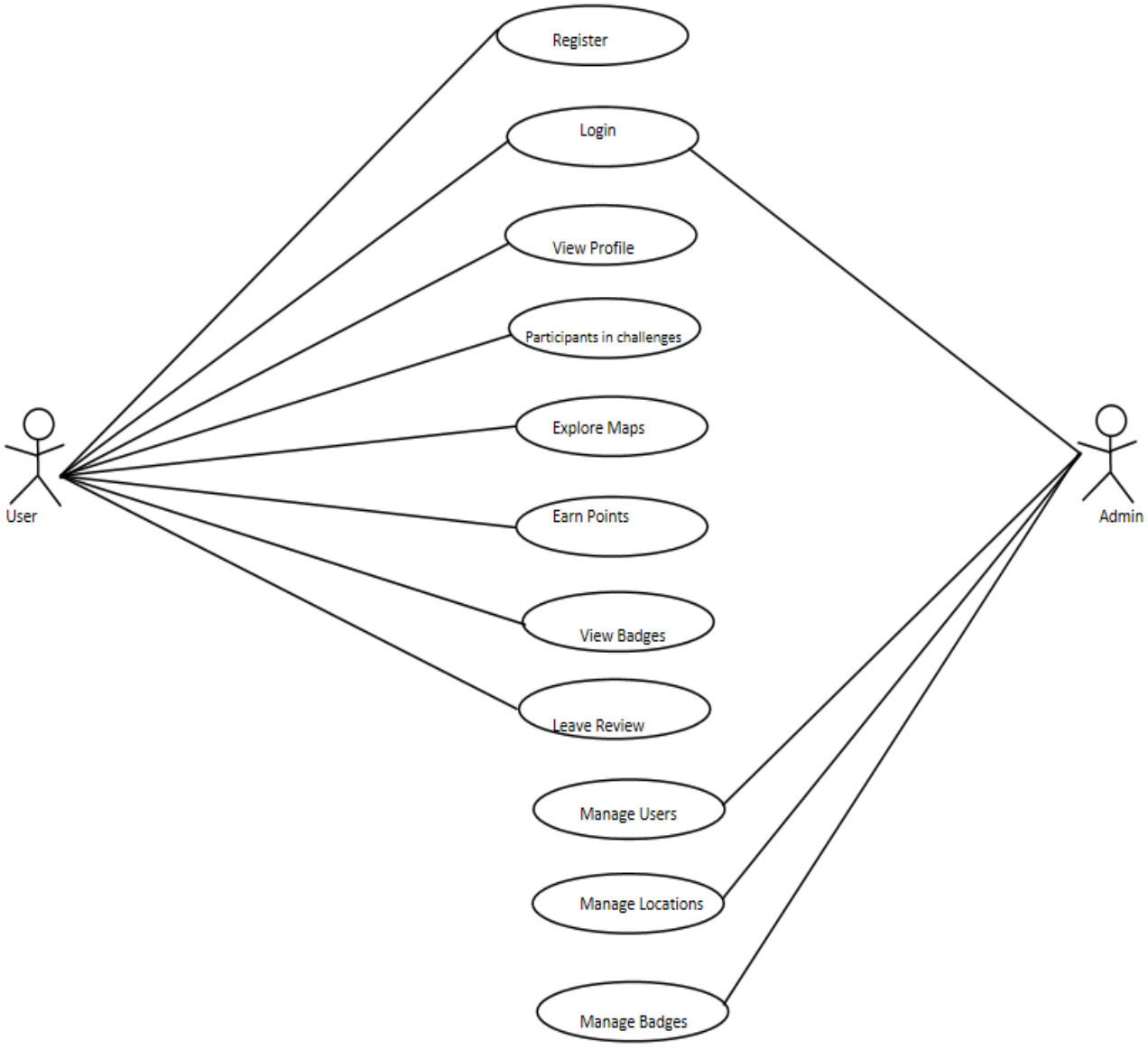
1. OPERATING SYSTEM : MICROSOFT WINDOWS.
2. FRONT END TOOL : COREJAVA .
3. BACK END : MYSOL .

3.SYSTEM DESIGN :-

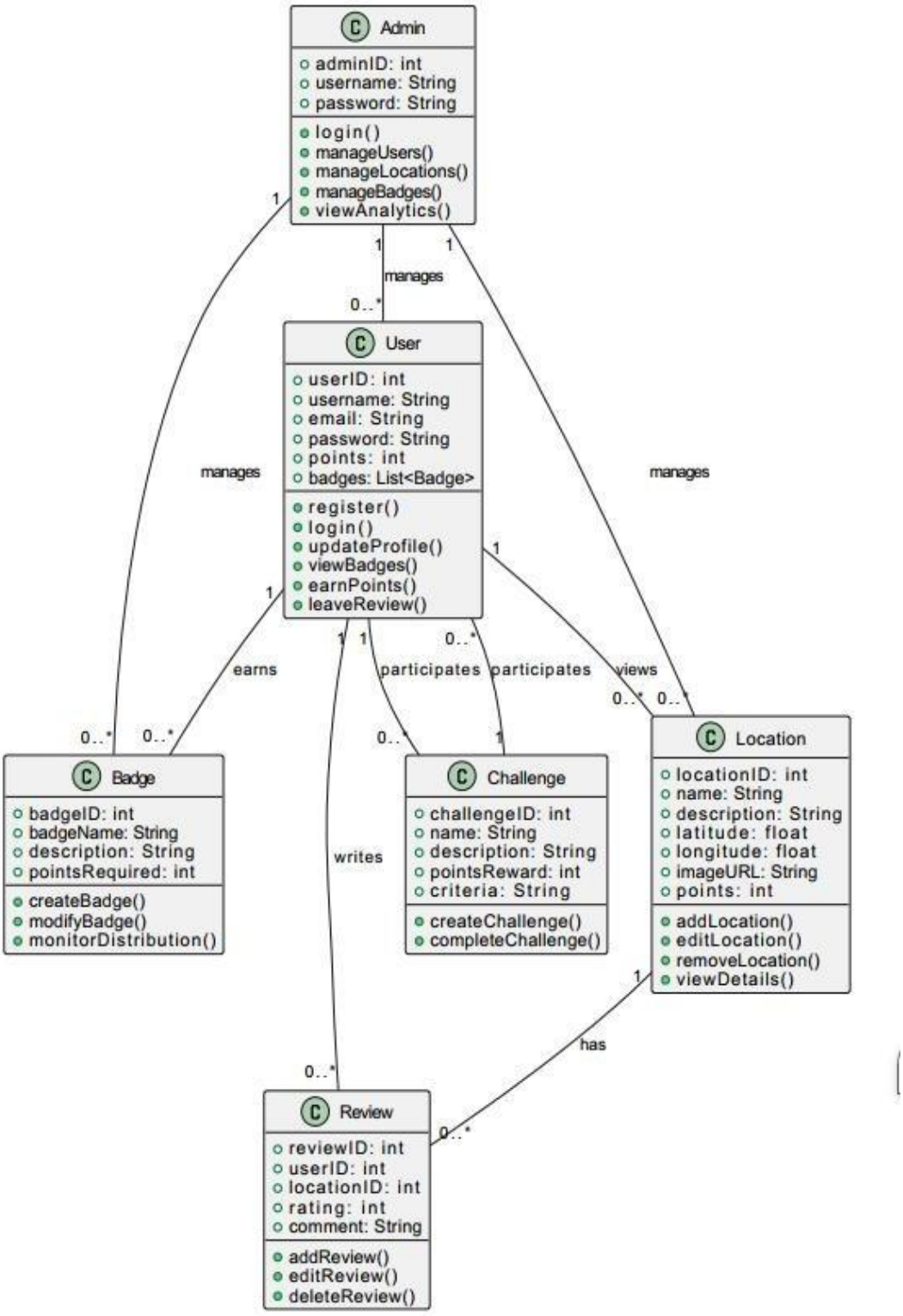
3.1 Entity Relationship Diagram



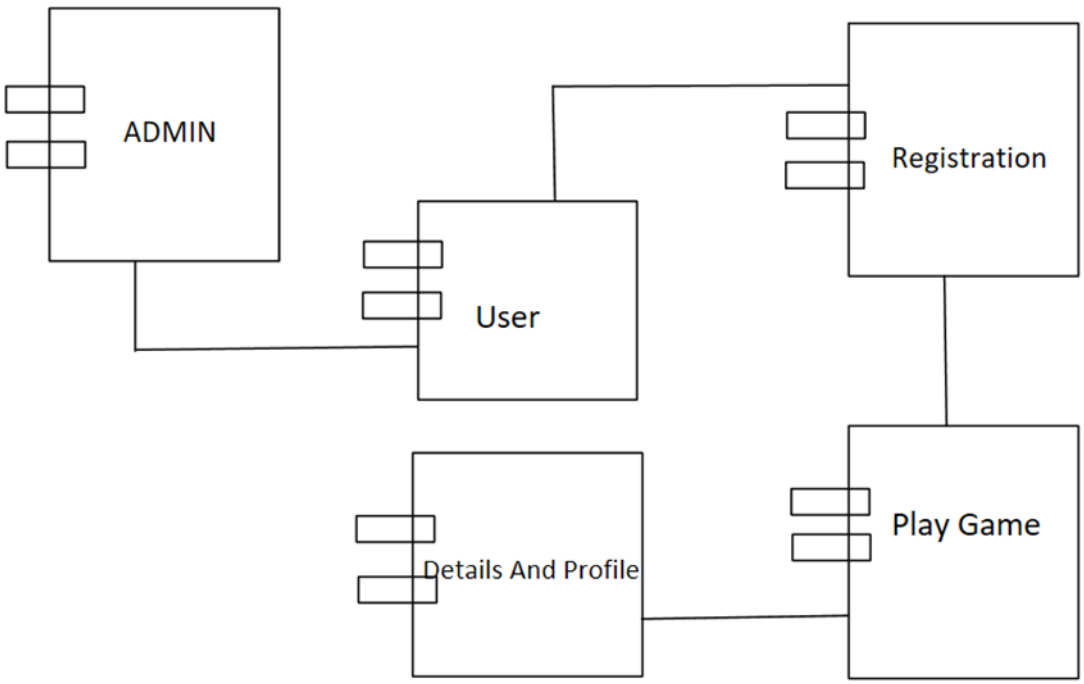
3.2 Use Case Diagram



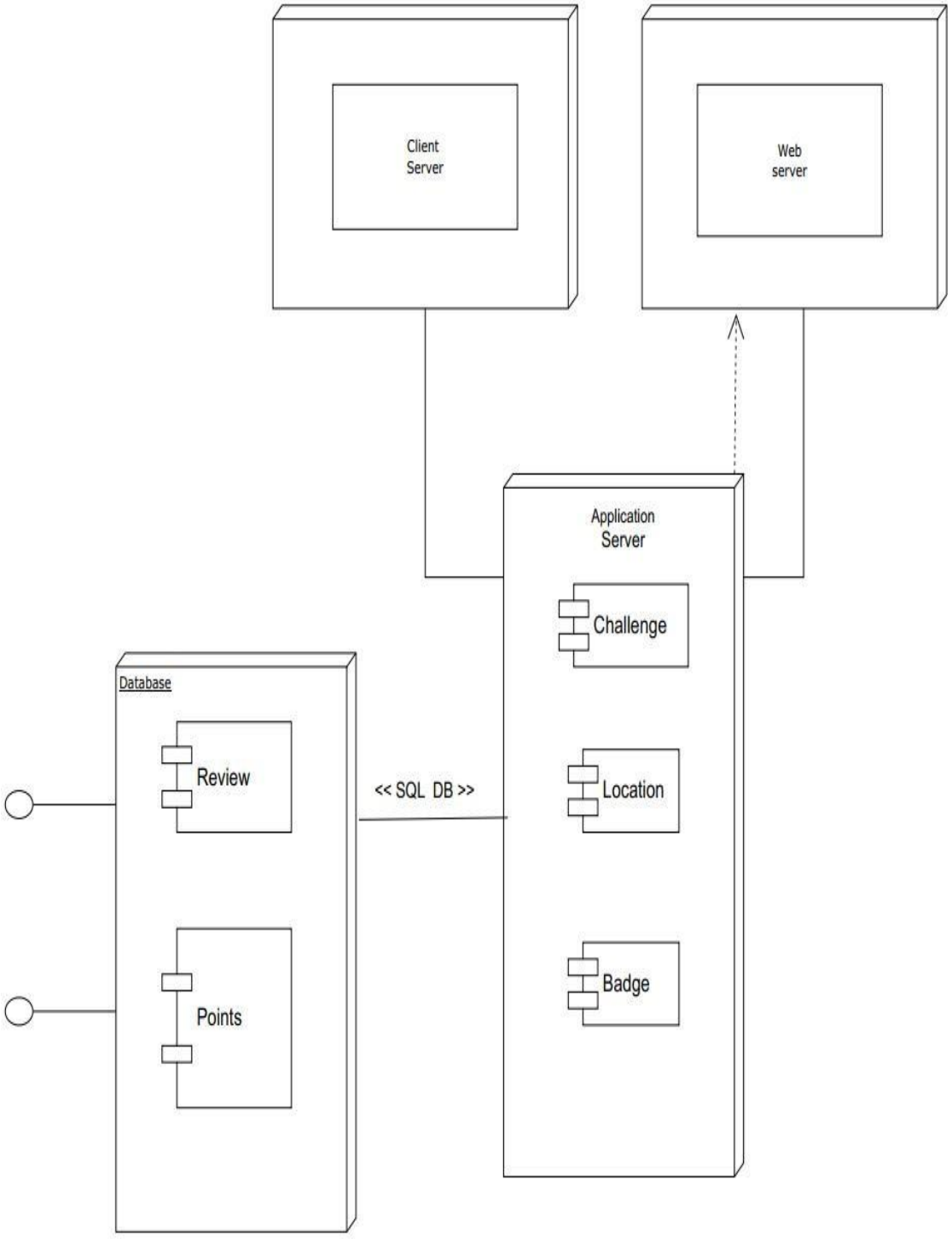
3.3 Class Diagram



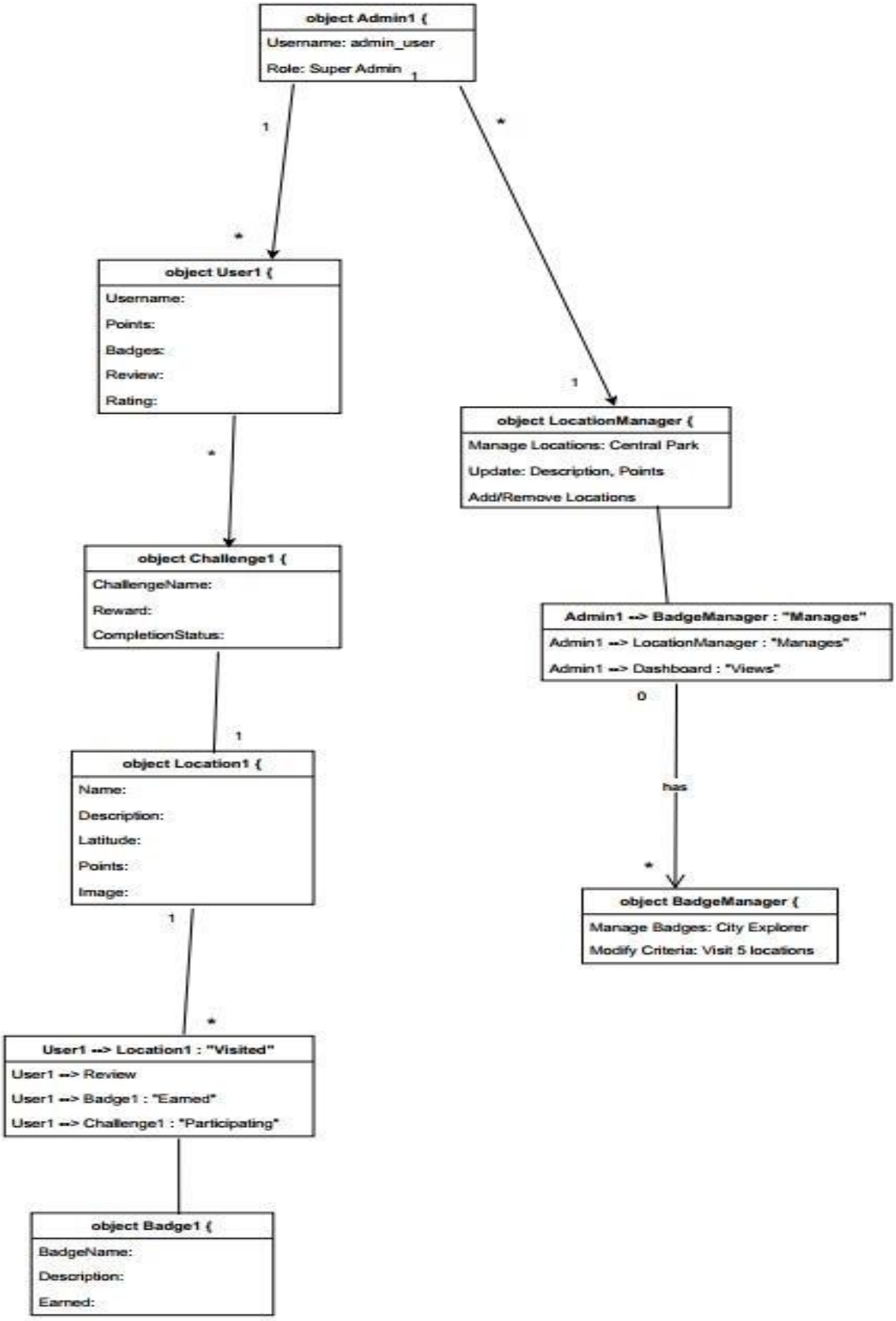
3.4 Component Diagram



3.5 Deployment Diagram



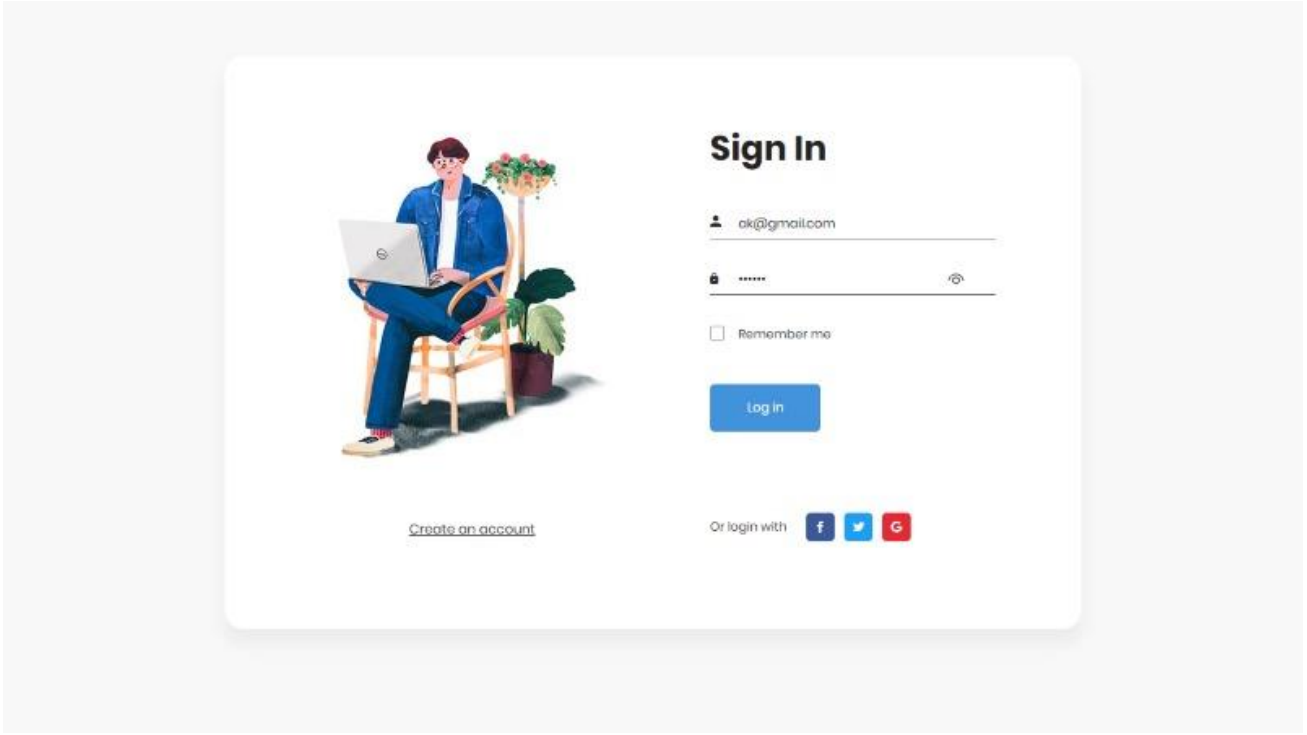
3.6 Object Diagram



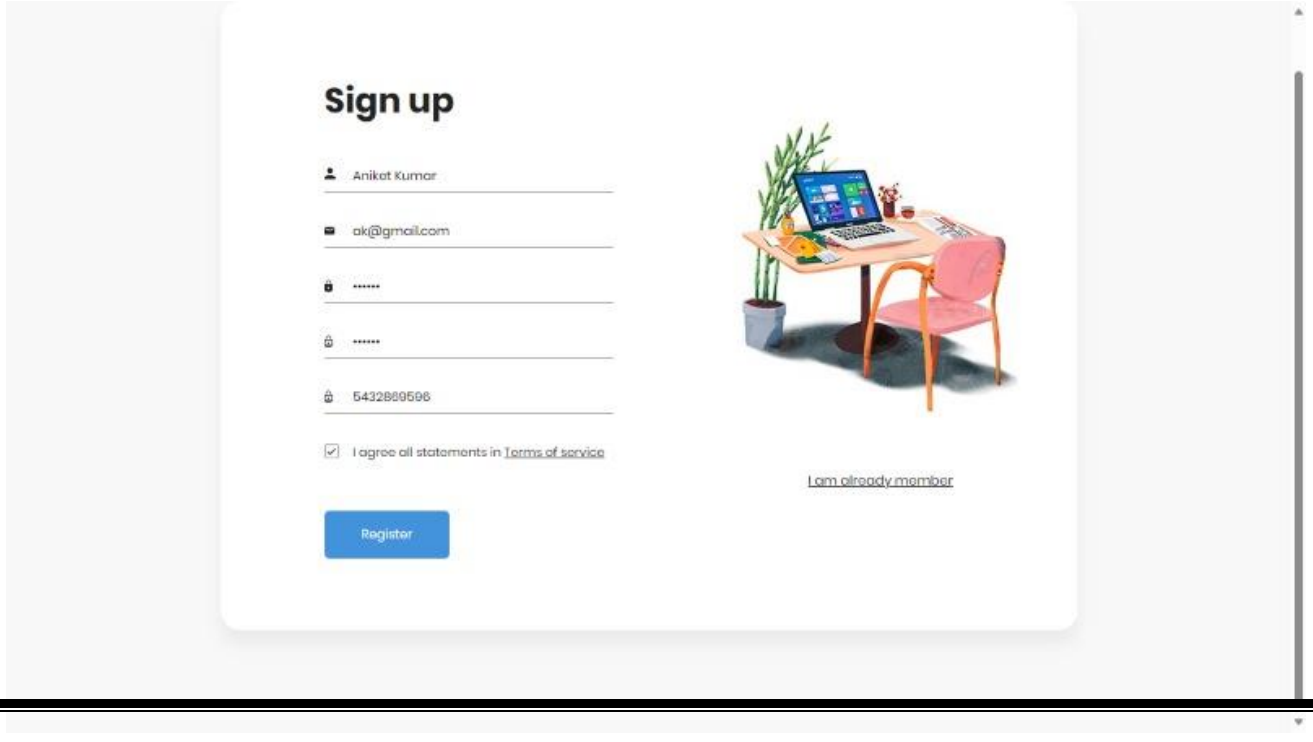
4. FORMS AND REPORT

4.1Input & output screens

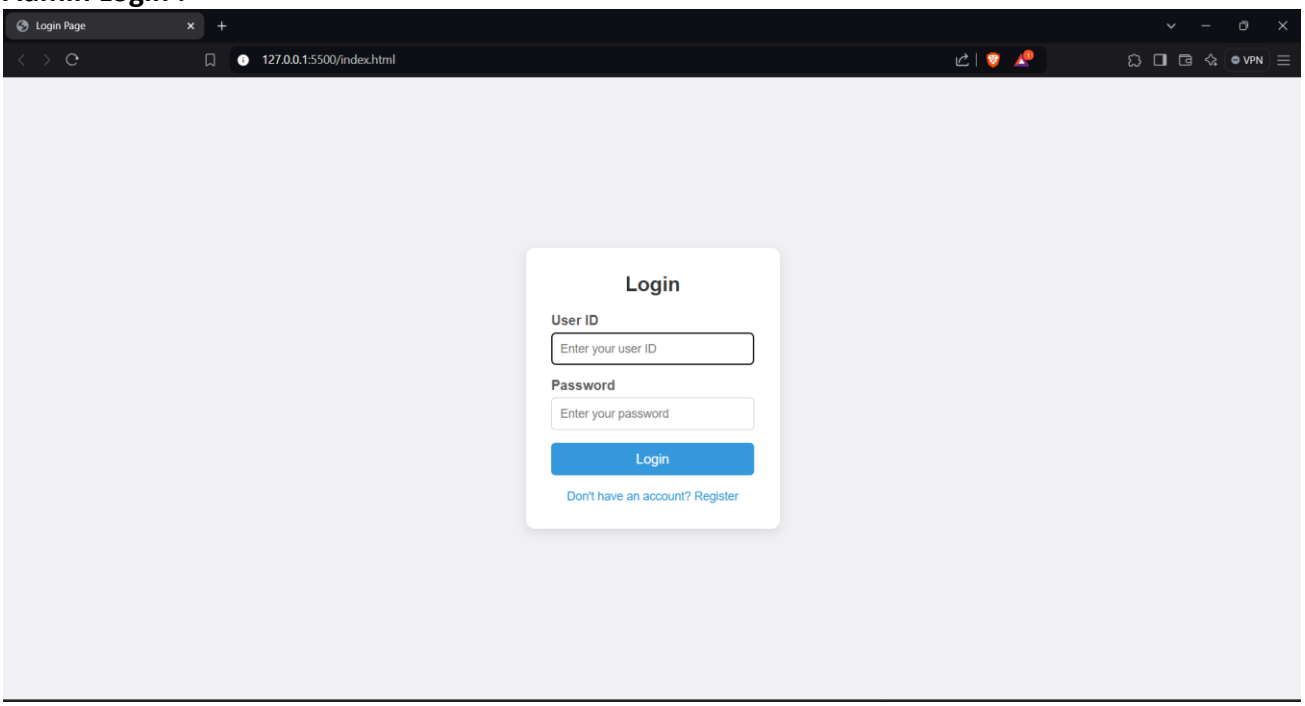
Login form :



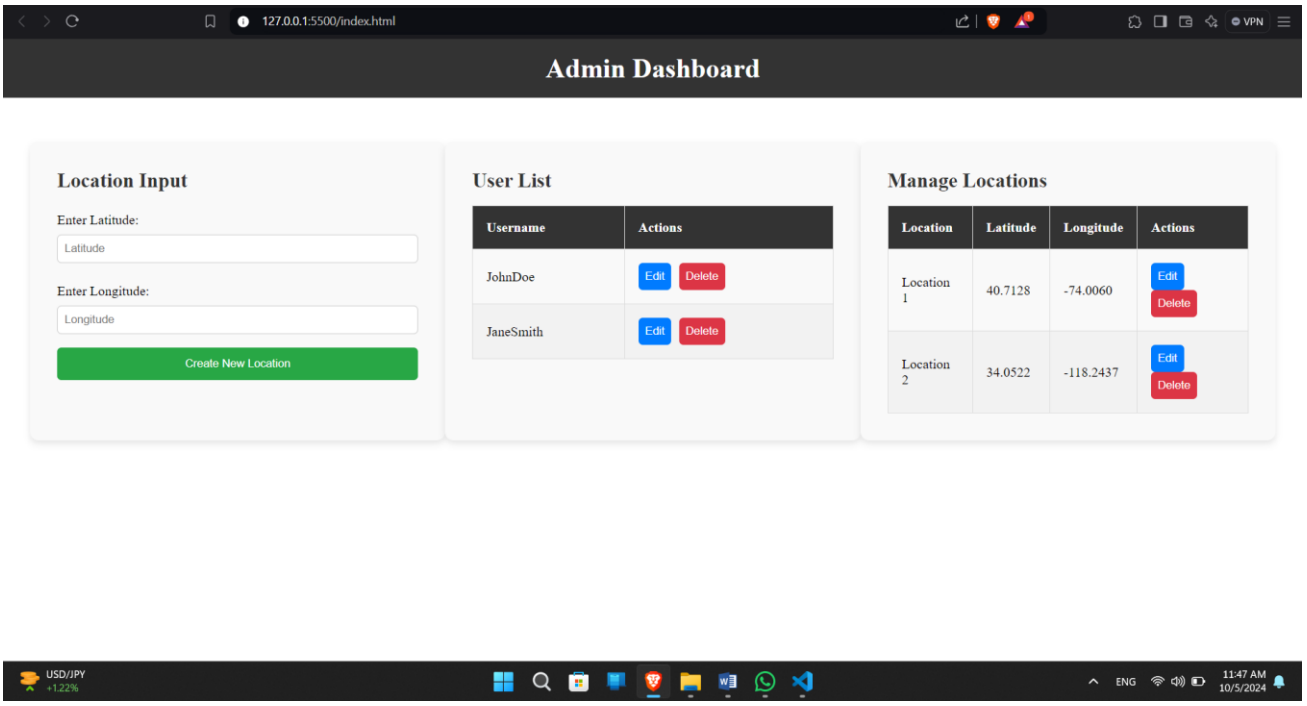
Sign up Form :



Admin Login :



Admin Dashboard :



File Design

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

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 :

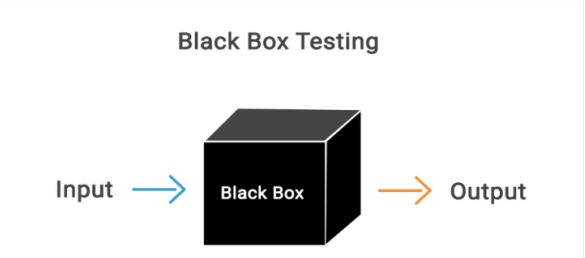
Black box testing focuses on testing the functionality of the application without knowledge of the internal code or structure. The tester interacts with the system by inputting data and analyzing the output, ensuring that the system behaves as expected.

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.
- Challenges: Participate in challenges and ensure that completion results in correct rewards.
- Leaderboard: Input data for multiple users and verify if the leaderboard ranks users according to their points.

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.


Black Box Testing
Input
Black Box
Output

6. Advantages And Dis-Advantage of System

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.

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.

5. 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.
- **Benefit:** Adds an educational dimension, appealing to schools and families.

6. References

- Google maps Application programming interface
- Google Search
- Bootstrap
- You Tube
- Java Reference Book
- Networking Book
- W3 schools