"WizMap"

(Project Idea Document)

Team Airbenders

Shafiq-us Saleheen

Rupali Tasnim Samad

Tashfia Jannath

Abhijit Paul

(Institute of Information Technology, University of Dhaka)

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Checkpoint 1: System Design & Planning & Idea Assessment

1. **User story of WizMap**

WizMap is a website with many features to learn all about the countries of the world including a real time chatting system, quiz, question answer forum for creating an interactive platform for anyone around the world.

The website consists of six major modules, which are :

1. Sign Up/ Login
2. Countries
3. Ocean & Seas
4. Quiz
5. Chat
6. Forum

After opening the application the user will be able to see the following tabs:

I. **Sign Up/ Login:** There will be two types of users for this application.
   A. **Admin:** Predefined account for admin will be created and admin will be able to change any information within the application and manage user profile.
   B. **User:** Firstly, the user needs to register with necessary information (Full Name, User Name, Email id, Country, Password). After registration, the user can login by providing the correct username and password.
   C. **Password Recovery:** Furthermore, there will be an option for password recovery. If the user forgets his password, an OTP will be sent to the provided email address. By providing the correct OTP, the user can reset his password.

II. **Countries:** By clicking this tab, the user will find various options such as -
   A. **General facts:** (Population, Capital, Official Language)
   B. **History:** significant events related history
   C. **Culture:** literature, music
   D. **Sports:** By clicking on the sports tab, the user will be able to choose between popular sports such as football and cricket. Upon clicking an option, the user will be able to see the football and cricket playing nations marked on the map and by clicking on the marked nation the

user will be able to see some information about that country's achievements in those sports or renowned players etc.

    E. **Forms of Government:** By clicking on the tab, users will be able to see the countries that follow communism or have an existing monarchy.

    F. **Travel:** By clicking this tab, the countries with most iconic tourist destinations will be marked and by clicking the marked countries, the user will be able to see the famous destination related information and some pictures.

    G. **Unions:** By clicking on this tab, the user will get some options like - SAARC, ASEAN, GCC, Nordic countries, Baltic countries etc and see those countries marked in the map.

By clicking any of the options, the user will see a world map and by clicking any country the user will be able to see above information depending upon the option chosen.

III. **Ocean and Seas:** By choosing this option, the user will be able to click on any of the ocean or sea of the world and can view physiographic, geologic features and economic aspects about that particular choice.

IV. **Quiz:** For using this feature, the user will have to sign up and login. The user can play two types of quizzes.

    A. **Multiple choice question:** Admin will set some predefined questions with 4 options. User needs to guess the correct answer.

    B. **Gaming quiz:** Two options will be of the country, oceans and seas. The user will see an unmarked map and a country or ocean name will be shown on the screen. The user has to click on the location of the country or ocean based on the name shown on the screen and if the answer is correct, he will gain points.
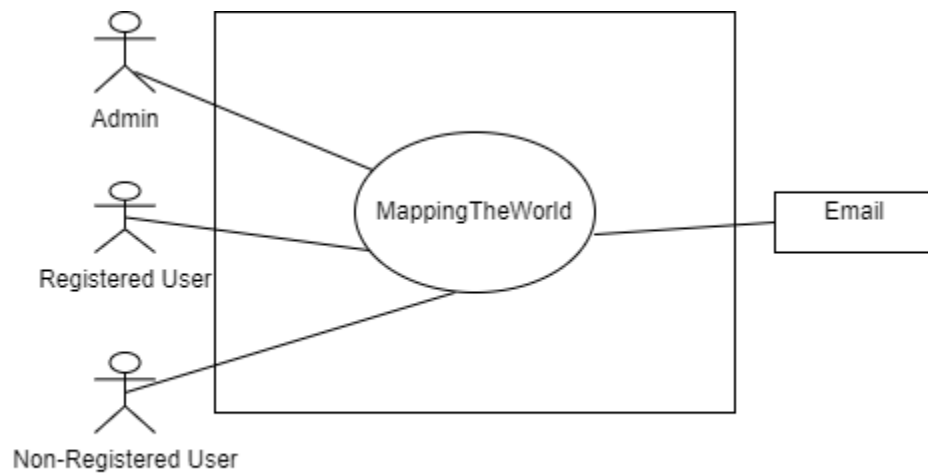
The quiz will be played in rounds and by completing each round there will be a level up and XP gained. A leaderboard of the top scorer of the month will be shown on a dashboard.

V. **Chat:** For using this feature, the user will have to sign up and login and then will see the map and number of users active from a country will be shown in

the map. Then users can send chat requests and by accepting it, different people from the world will be able to send text messages to each other.
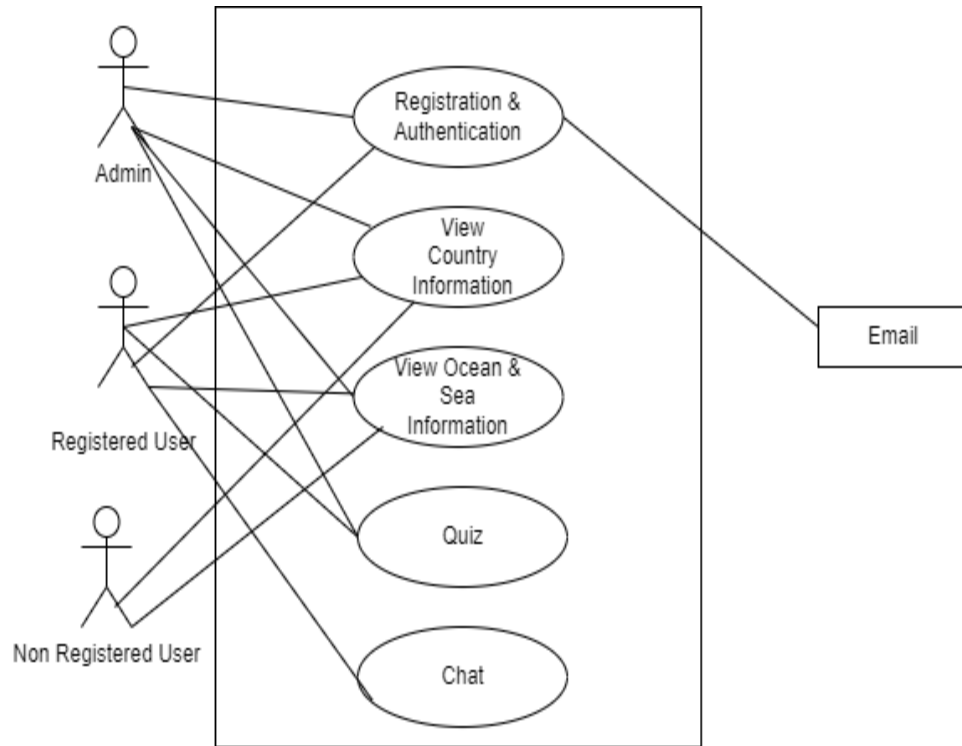
VI.   **Forum**: The user will be able to ask any questions about any country and another user will be able to answer by signing up and login.
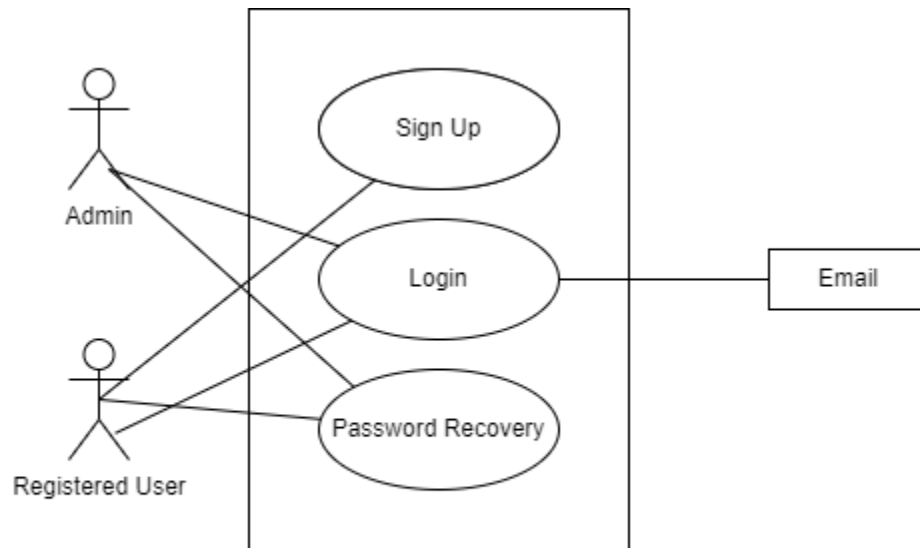
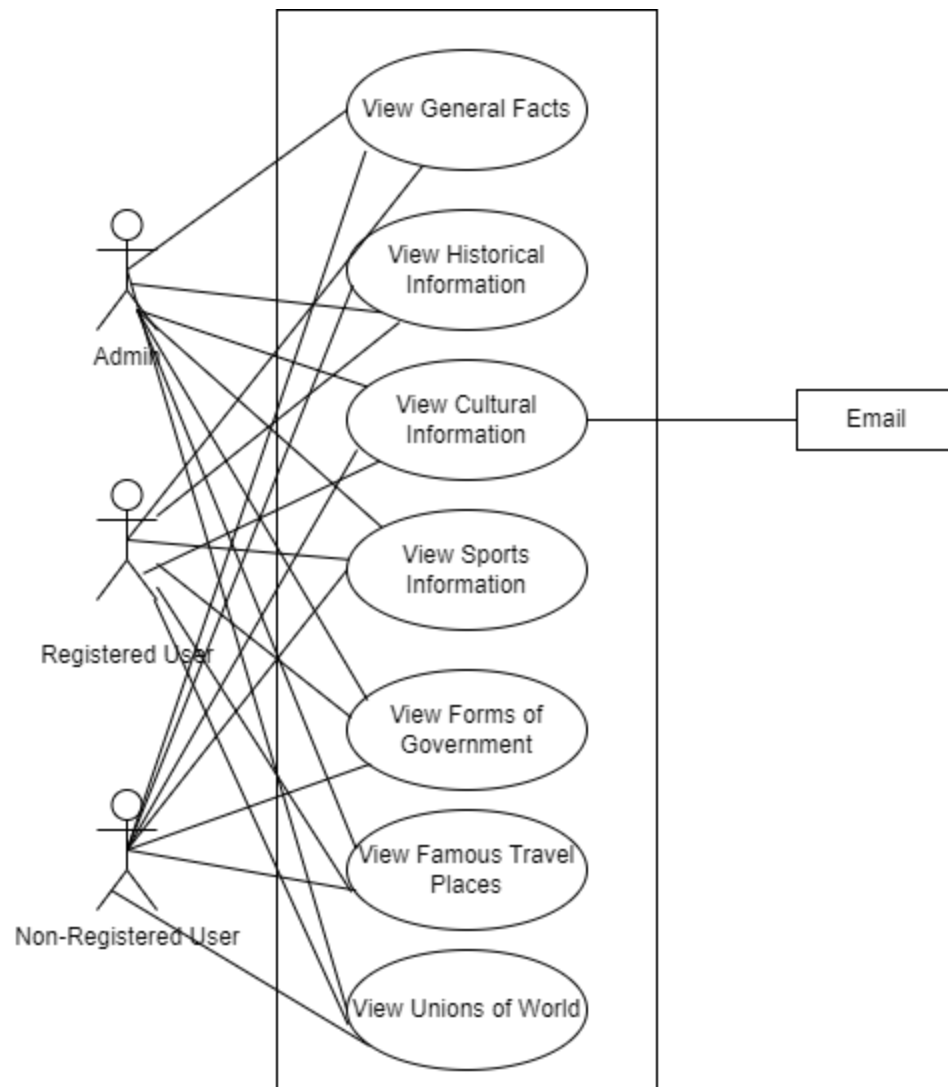## 2. Use Case Diagrams:

Level 0

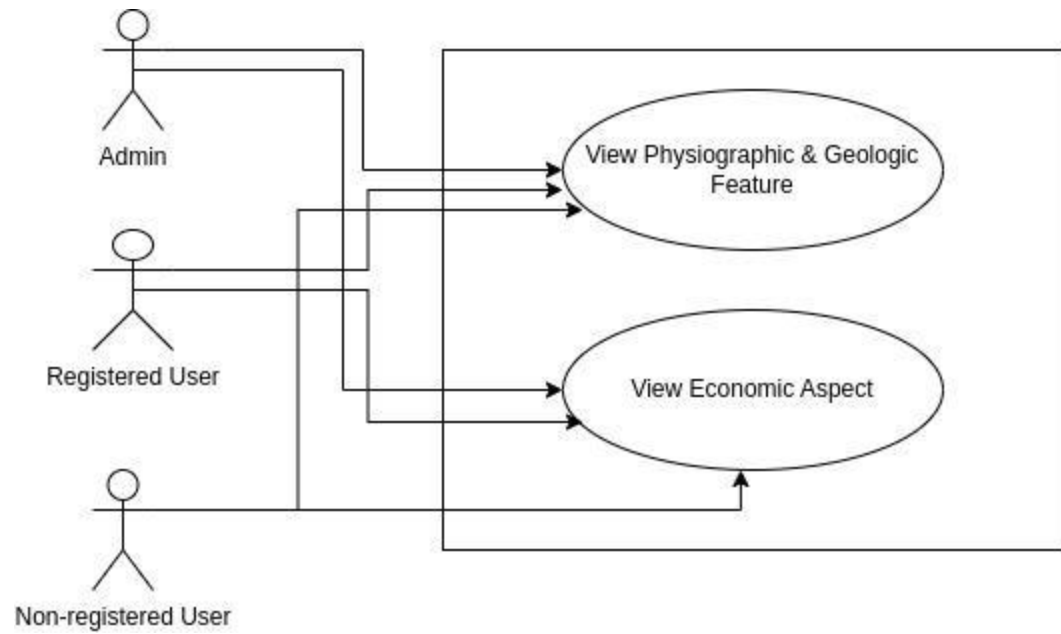Level 0: WizMap

Level 1

Level 1:Overview of Wizmap

Level 1.1

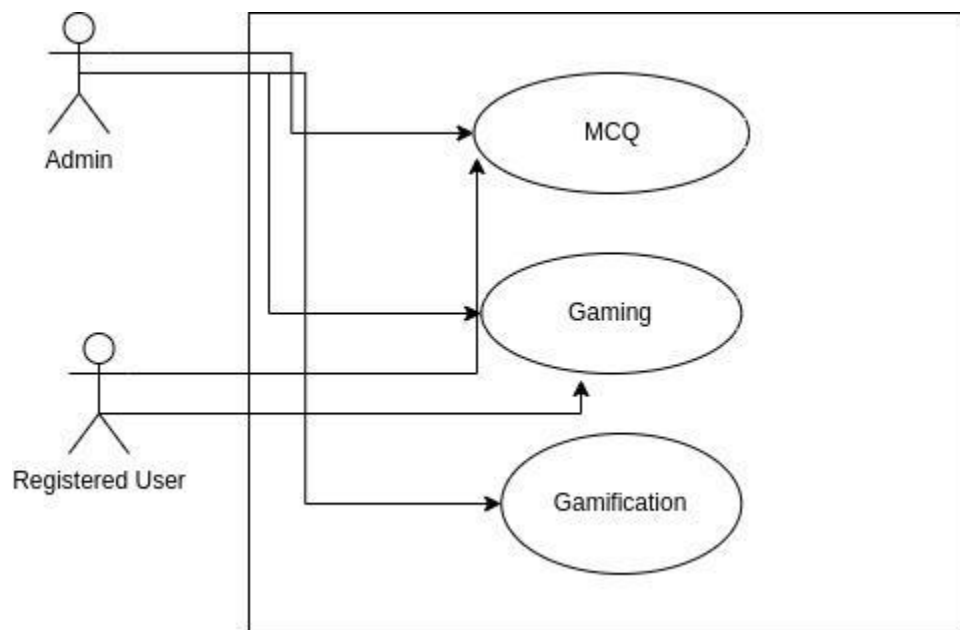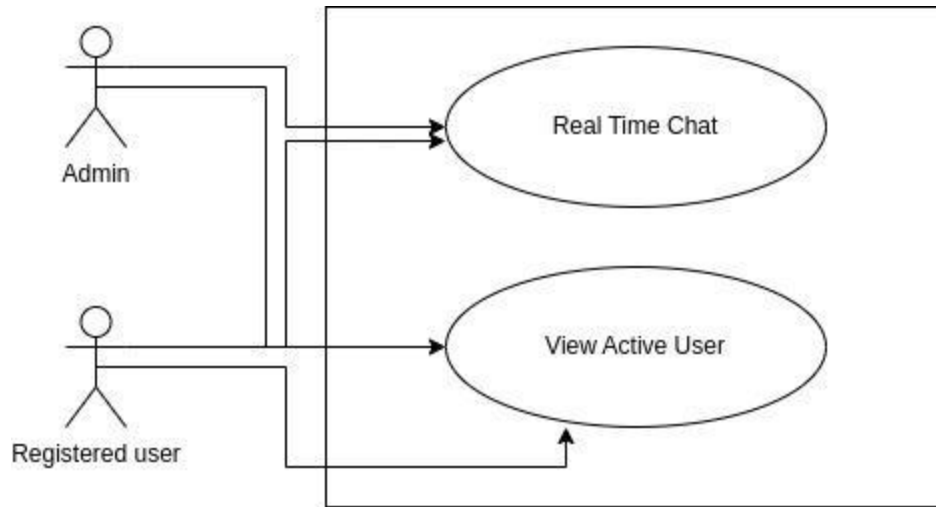Level 1.1: Registration & authentication

Level 1.2

Level 1.2: View Country Information

Level 1.3: View Ocean & Sea information

Level: 1.4 Quiz
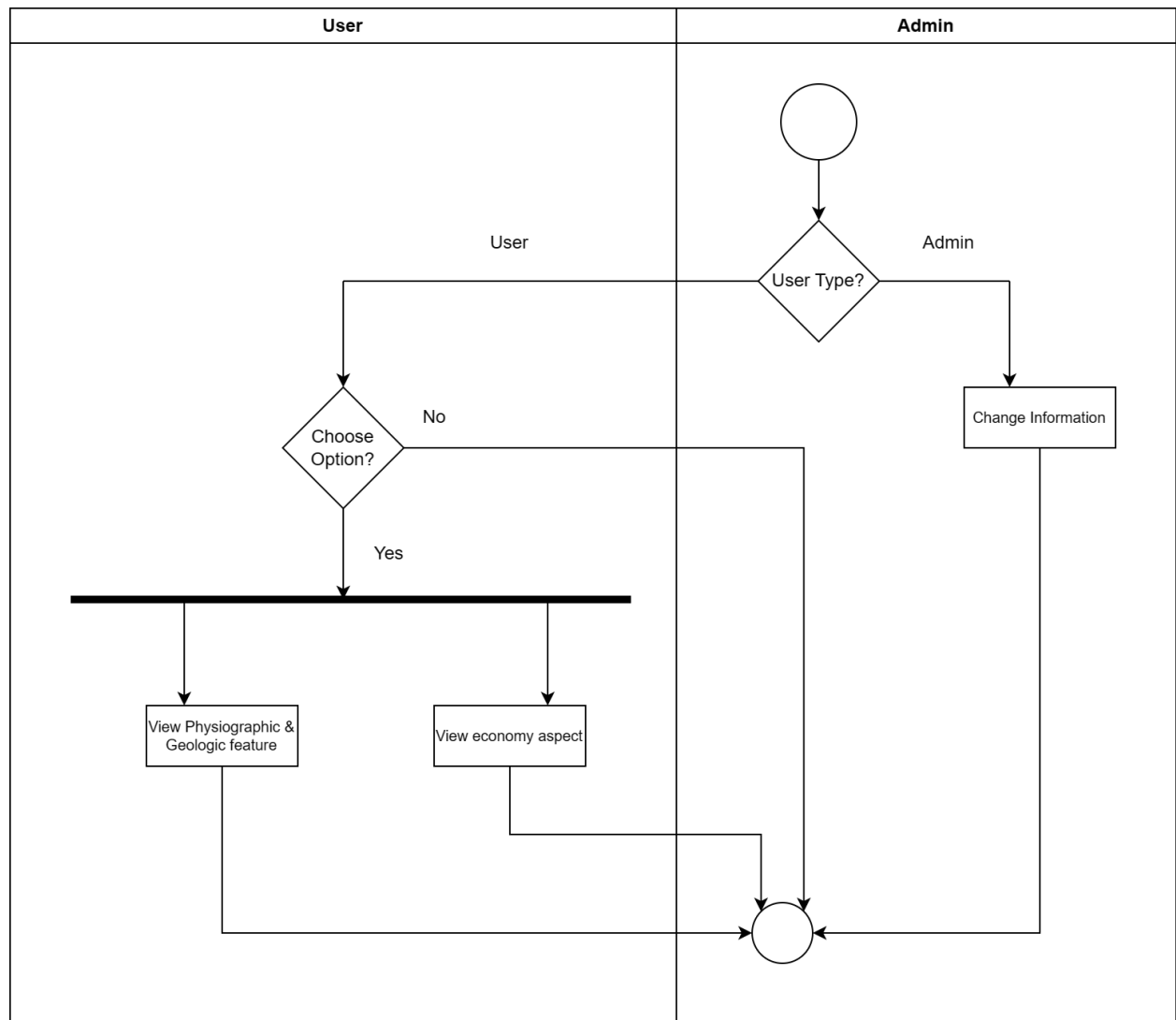
Level: 1.5 Chat

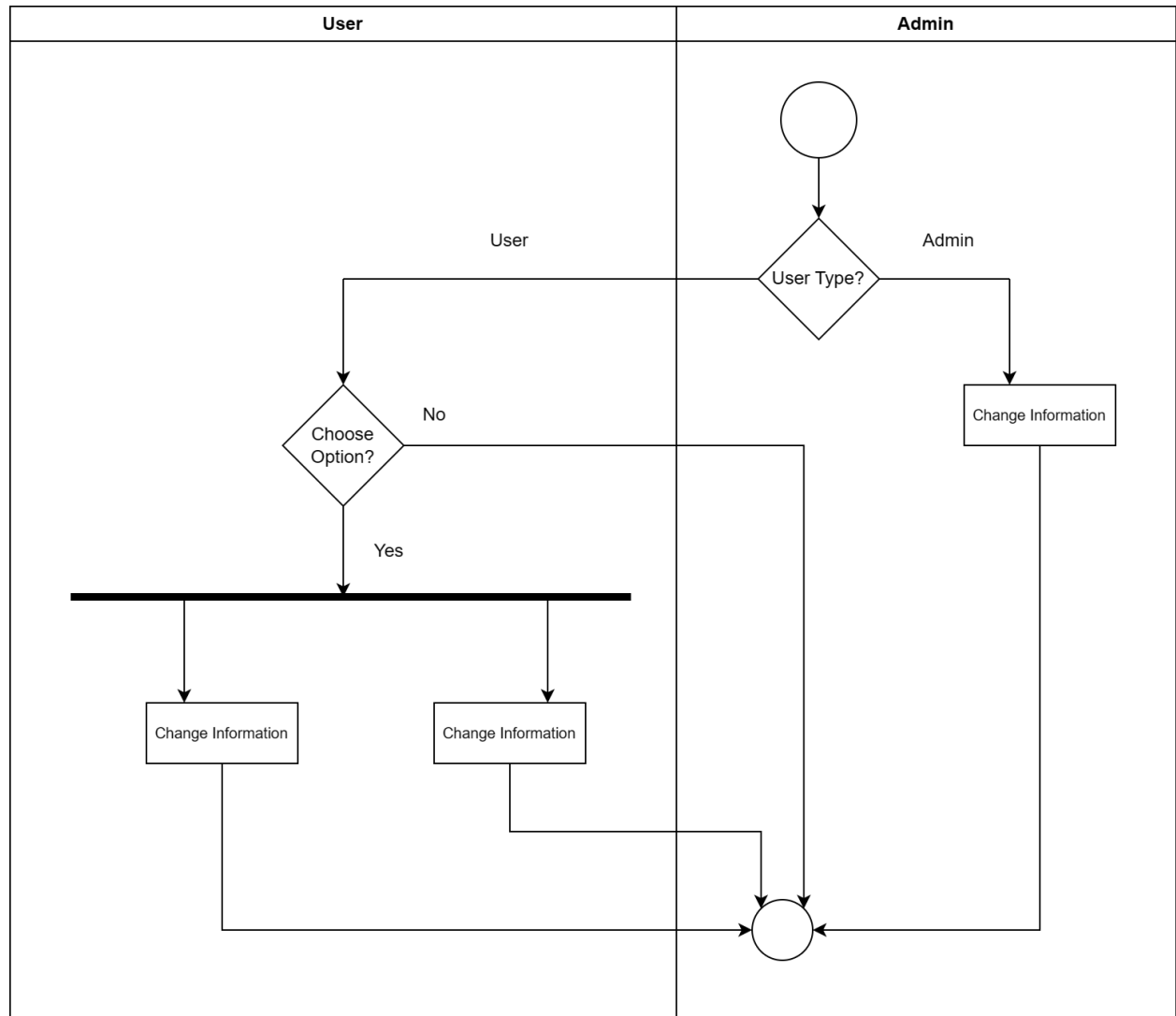## 2. Swimlane Diagrams:

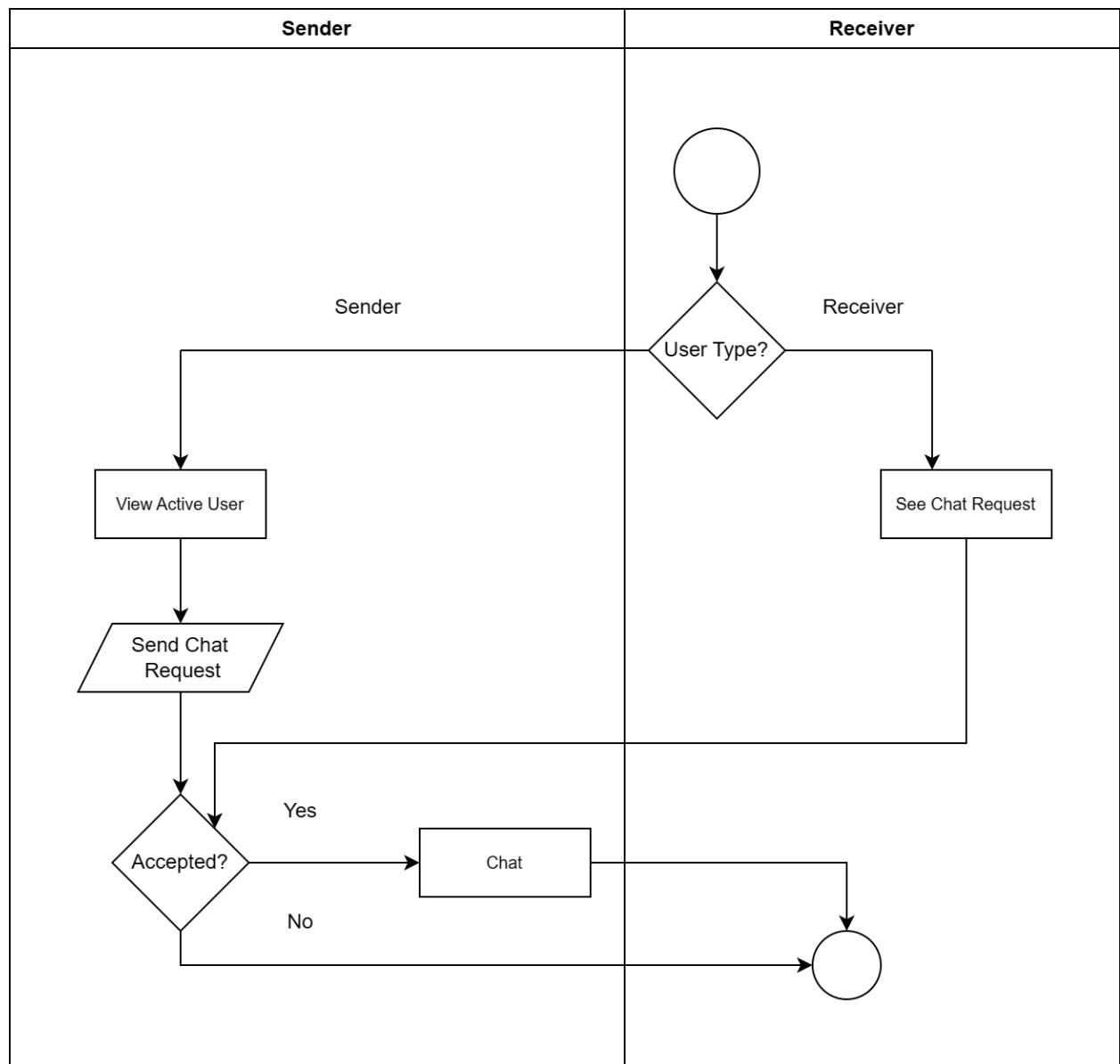**Fig: Swinlane diagram of level 1.2**

Fig: Swinlane diagram of level 1.3

Sender	Receiver

Sender

Receiver

User Type?

View Active User

See Chat Request

Send Chat Request

Yes

Accepted?

Chat

No

Fig: Swinlane diagram of level 1.4

User	Admin

User

Admin

User Type?

Enter Choice

MCQ or Gaming?

Country or Ocean?

Country

Ocean

Set Question

Set Level

Play Country Game

Play Ocean Game

Set Difficulty

See Question

View Score & Leaderboard
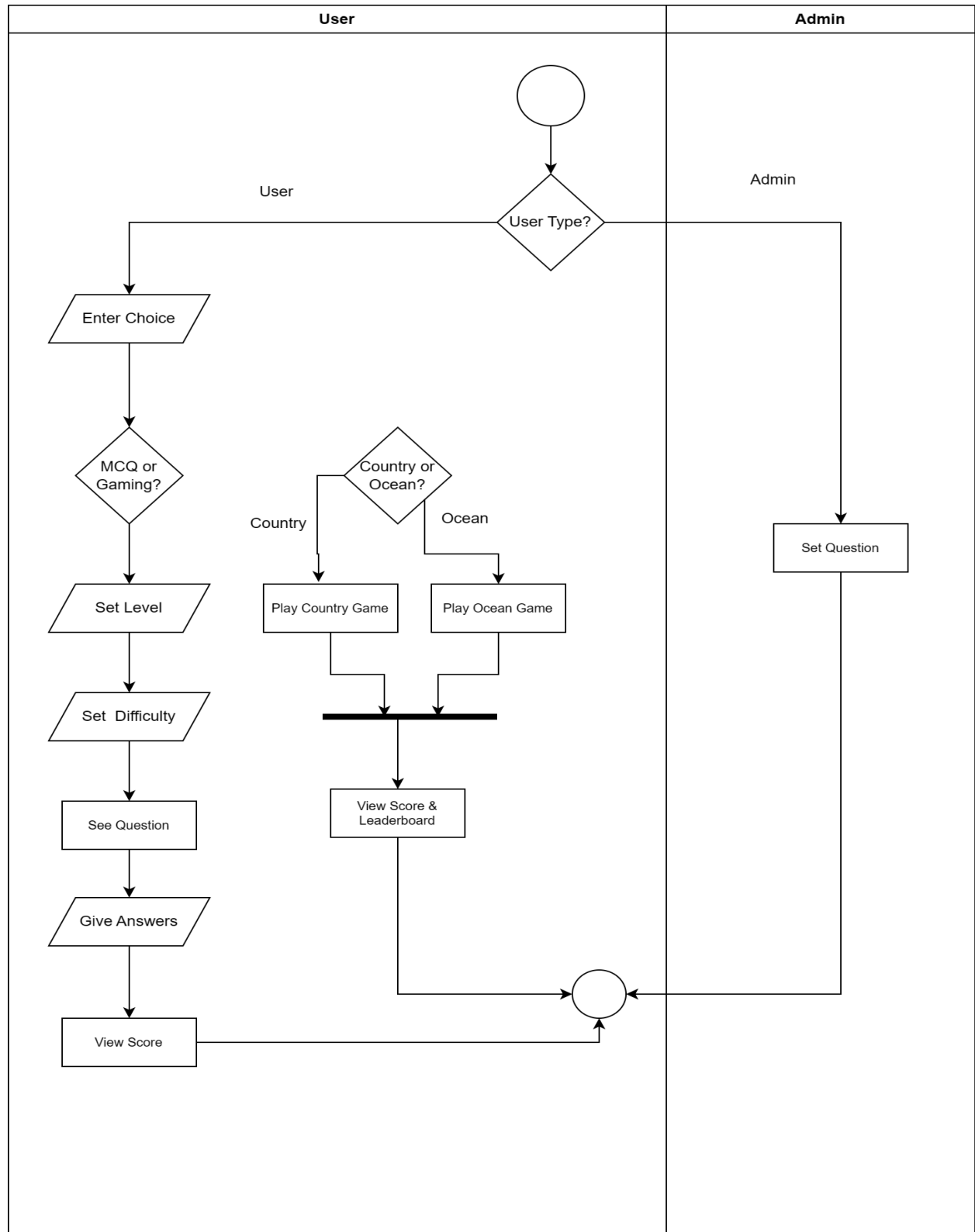
Give Answers

View Score

Fig: Swinlane diagram of level 1.5

3. Architectural Design

Our web application will follow 3-tier architecture - Presentation Layer, Logic Layer & Persistence Layer.

Figure: 3-tier architecture of WizMap

The presentation layer manages user interaction and communicates with the logic layer. The logic layer consists of APIs to complete communication with the presentation layer. It also processes the input and the bridge for the output to the client. The persistence layer stores and retrieves data from the system.
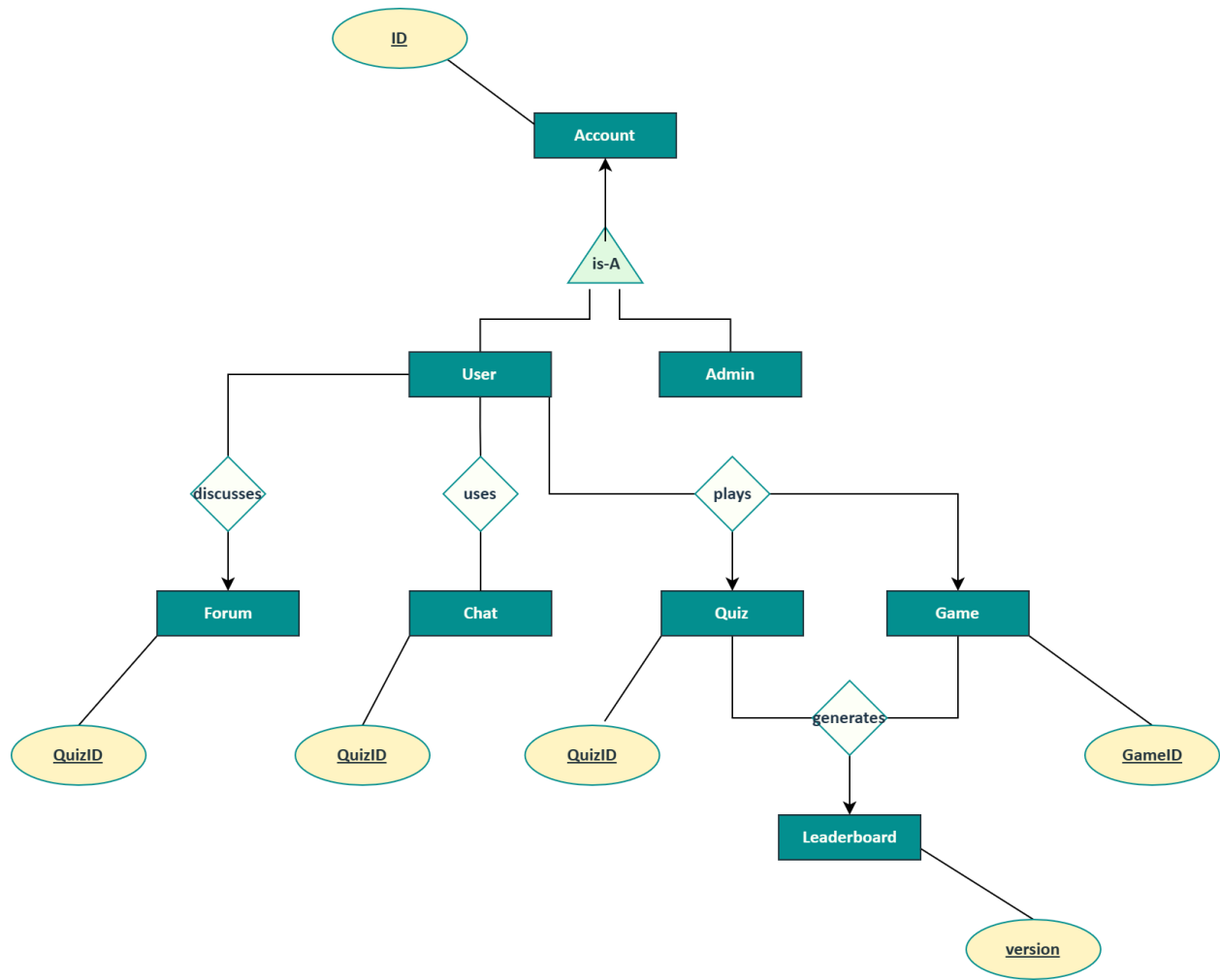
4. ER Diagram

Fig: ER Diagram of WizMap