



# ***Software Engineering Project Report***

## ***Computer Engineering and Software Systems (CESS)***

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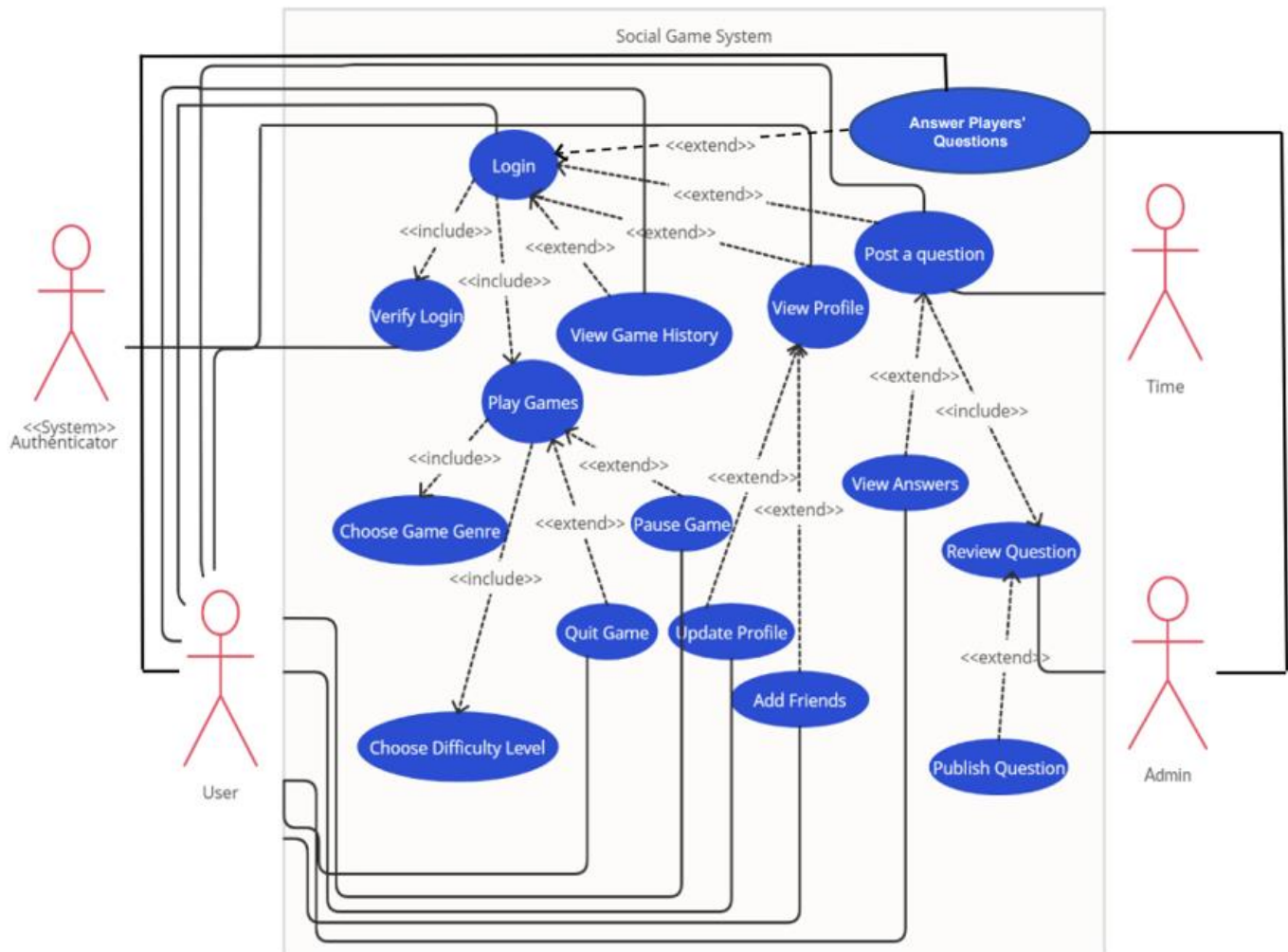
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## 2.0 Stake Holders and Use Case Diagram

### 2.1 Stake Holders

Stake Holders are: Game Developer, User, Admin, Marketing Team.

### 2.2 Use Case Diagram



## 3.0 Use Case Description

### 3.1 First Case

Use Case	Post a Question
Brief Description	User posts a question
Actor(s)	User
Trigger(s)	User presses post question button
Precondition(s)	User Login is Authorized
Main Success Flow	<ol style="list-style-type: none"><li>1. User logs into the system</li><li>2. System authenticates the user</li><li>3. User chooses to post a question</li><li>4. User writes the question to be posted</li><li>5. Admin reviews the question</li><li>6. Admin approves the question</li><li>7. Question is published</li></ol>
Post Condition(s)	The question is posted
Extension(s)	<p>1a. System fails to authenticate user</p> <p>1a1. User redirected to login page to enter their credentials</p> <p>6a. Admin refuses the question so it's not published</p> <p>6a1. User is informed that question is refused and is redirected to write their question again according to proper guidelines</p>

### 3.2 Second Case

Use Case	View Answers
Brief Description	User wants to view answers of his question
Actor(s)	User
Trigger(s)	User presses view question answers button
Precondition(s)	User Login is Authorized
Main Success Flow	<ol style="list-style-type: none"><li>1. User logs into the system</li><li>2. System authenticates the user</li><li>3. User chooses to view answers to his question</li><li>4. User is able to see all answers to his question</li></ol>
Post Condition(s)	User views question answers
Extension(s)	<p>1a. System fails to authenticate user</p> <p>1a1. User redirected to login page to enter their credentials</p> <p>4a. The question is not yet answered</p> <p>4a1. User is told by system that the question hasn't been answered and to wait until it is.</p>

## 4.0 User Stories and Acceptance Criteria

### 4.1 User Stories

- As a user, I want to be able to login to the system so that I can play games.
- As a user, I want to be able to view my game history so that I can keep track of the games I've played.
- As a user, I want to be able to choose the genre of the game I want to play so that it's easier for me to look for games I'd like to play.
- As a user, I want to be able to choose the difficulty level of the game I want to play so that I enjoy playing a game that is suitable to my level.
- As a user, I want to be able to quit the game I'm currently playing so that I don't get stuck in the game whenever I have to leave or when it gets boring.
- As a user, I want to be able to view my profile so that I can keep track of my achievements.
- As a user, I want to be able to update my profile so that I can update any outdated information on it.
- As a user, I want to be able to add friends so that I could play and compete with them.
- As a user, I want to be able to answer questions posted by players so that I could help them.
- As an admin, I want to be able to review the questions that players post to make sure they comply with community guidelines.
- As an admin, I want to be able to answer questions players post so that I can help players have a better playing experience.

## 4.2 Acceptance Criteria

- Given that I'm a user, when I log into the system, the system should allow me to view my game history.
- Given that I'm a user, when I log into the system, the system should allow me to play games.
- Given that I'm a user, when I log into the system, the system should allow me to post a question.
- Given that I'm a user, when I log into the system, the system should allow me to view my profile.
- Given that I'm a user, when I want to play a game, the system should allow me to choose the game's difficulty level.
- Given that I'm a user, when I want to play a game, the system should allow me to choose the genre of the game I want to play.
- Given that I'm a user, when I press on the "quit game" button, the system should allow me to leave the game.
- Given that I'm a user, when I update my profile, the system should save the changed I made to my profile.
- Given that I'm a user, when I add friends, the system should add these friends to my friend list.
- Given that I'm a user, when I answer to a question, the system should display my answer under the question.
- Given that I'm an admin, when a user submits a question, I should be able to review this question

## 5.0 Functional and Non Functional Requirements

### 5.1 Functional Requirements

- When a player is logged in, he/she should be able to view his/her profile, score, and history of games.
- When a player opens the profile, she/he should view the name, gender, birthday, email, and password.
- When a player displays friends, he/she can add or delete friends.
- When a player opens the game history, she/he can choose a gamer to play again.
- Whether the player is logged in or not, there should be a bank of Q and A that has all players' questions and answers.
- When a logged in player submit a question, the admin should be able to review it.
- After it is reviewed by an admin and accepted, the question should be published to the bank of Q and A.
- When a player is logged in, she/he should be able to answer any question.
- After a player is logged in, he/she should be able to choose any game to play and which difficulty to try.
- When a player is logged in, he/she should be able to see different genre of games and difficulties.
- When a player is playing a game, she/he should be able to quit, change difficulty, or add players.
- When the admin is logged in, she/he can publish, answer, or review questions.
- When the admin is logged in, she/he can delete, create, or edit games.

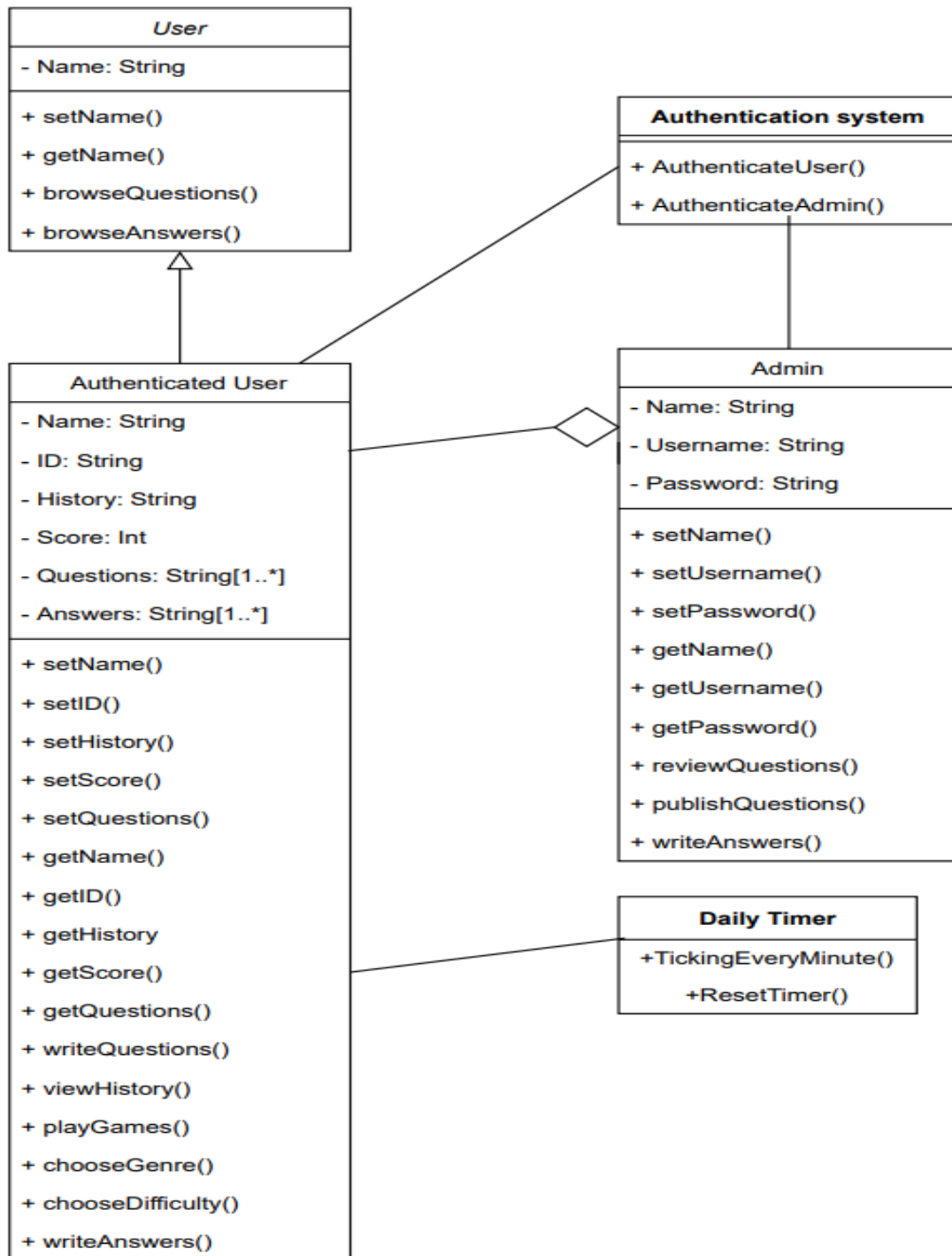


## 5.2 Non Functional Requirements

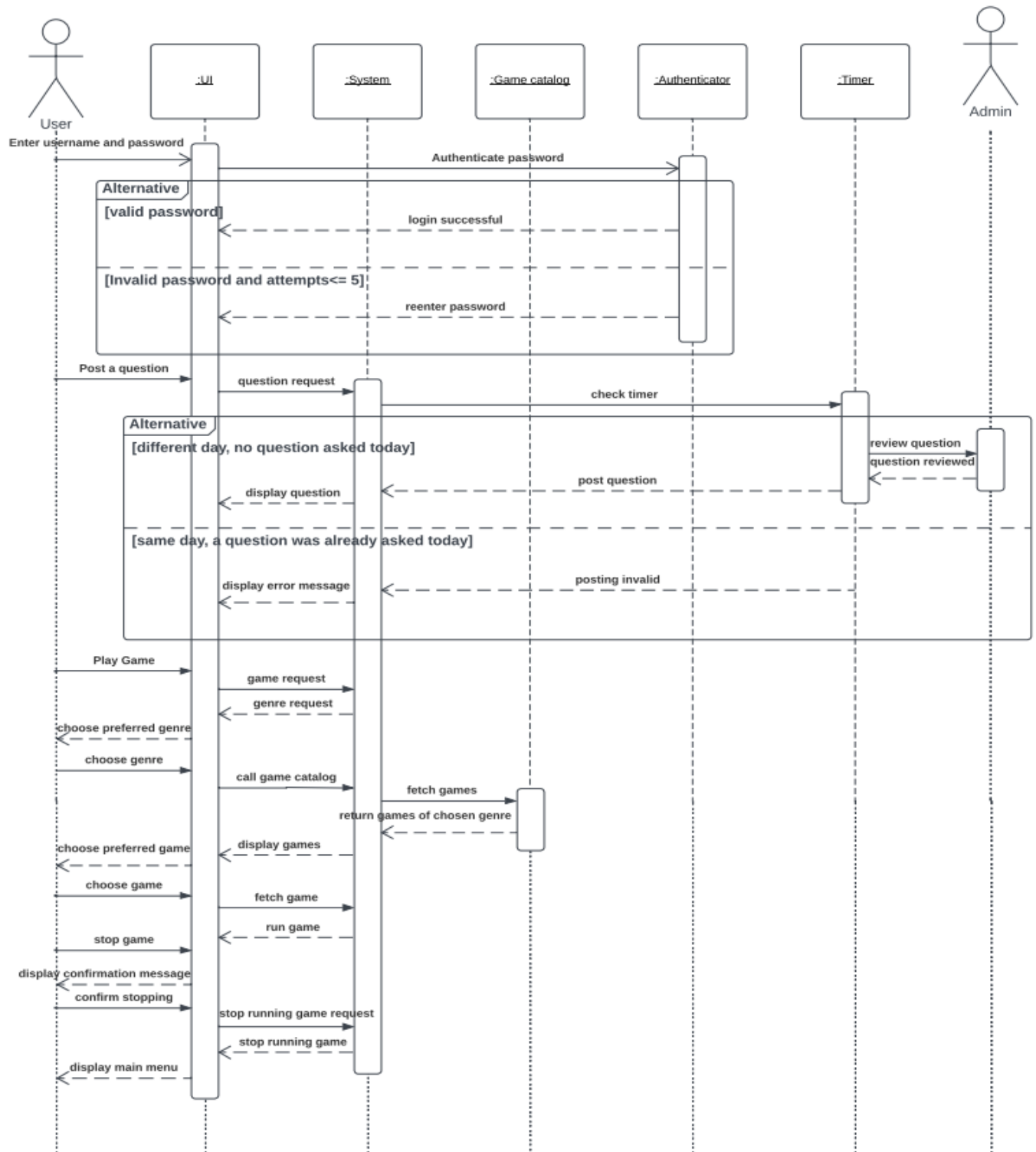
- Each player has a maximum of one question to submit per day.
- The system should be safe to protect the privacy of players.
- The system should be easy to use and flexible.
- Each player should log in to access her/his profile, score, and history of games.
- Each question should be reviewed by an admin before published.
- Each person should have one account only.
- The system should be updated every minute.
- A password for any account should have at least one capital letter, one small letter, one special character, one emoji.
- Every password should not have any consecutive numbers or characters and should not have the same letter or number more than one time.
- There should not be the same password for more than one account.
- There should not be the same user for more than one account.
- There should not be any spaces in a username.
- There should not be any special characters except for the underscore

## 6.0 UML Models

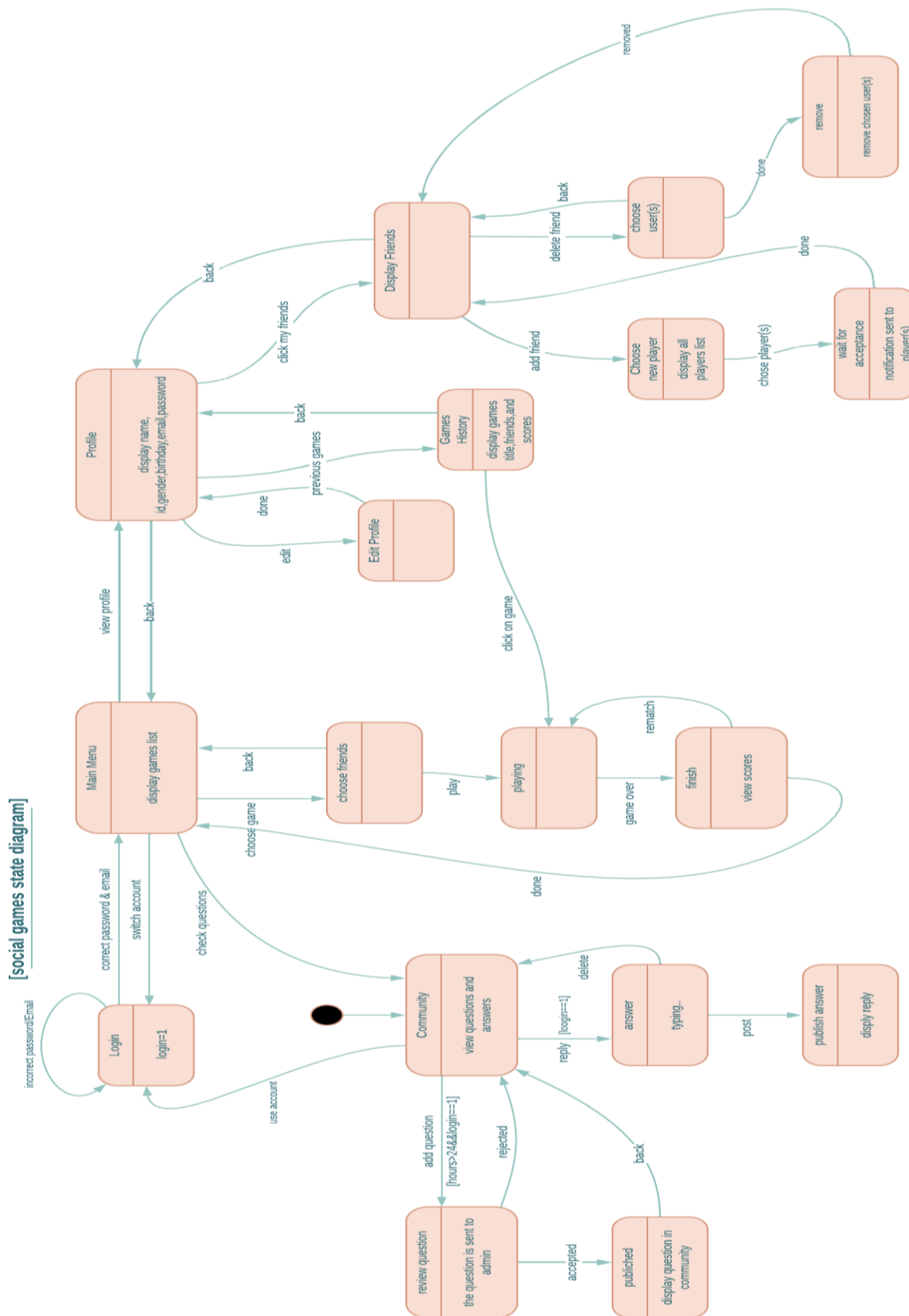
### 6.1 Class Diagram



## 6.2 Time Sequence Diagram



## 6.3 State Diagram



## 6.4 CRUD Matrix

	<u>User</u>	<u>Authenticated User</u>	<u>Authentication System</u>	<u>Admin</u>	<u>Daily Timer</u>
<u>Login</u>	C				
<u>Verify Login</u>			R		
<u>View Game History</u>		R			
<u>View Profile</u>		R			
<u>Update Profile</u>		U*			
<u>Add Friends</u>		C*, U*			
<u>Post Question</u>		C			U
<u>View Answer</u>	R	R			
<u>Answer player question</u>		C*, U*		C*, U*	
<u>Review Question</u>		R		R	
<u>Publish Question</u>				C	
<u>Play Games</u>		R*, C*, U*, D*			
<u>Choose Game Genre</u>		R*, C			
<u>Quit Game</u>		C			
<u>Choose Game Difficulty</u>		R*, C			

## 7.0 UX and UI Screens

### 7.1 UX

- **Name of the Project**

Sociable

- **Background**

Sociable is a software application that consists of multiple inner games. What makes this application special is that a user can have a mini social platform where he/she can add friends, chat, and ask questions that are, of course, reviewed by admins first. This project is mainly carried out for the sole purpose of making people socialize over a bunch of games and finding relief in a judgment-free social platform.

- **Target audience**

The target audience is anyone above the age of 18 who loves games that involve multiple players and is willing to make new virtual friends.

#### **Design Thinking Steps:**

- **What's in Scope**

Describe what definitely needs to be worked on and why

- **Empathize**

We know that the user will most probably use this application to socialize so we should create the best possible design that will chatting easier. For example: making a group for every game available where all the players of that certain game can contact each other

- **Define**

The core problems that we might face in the chatting context is how will the players start a conversation.

- **Ideate**

For example: making a group for every game available where all the players of that certain game can contact each other will make socializing easier. We could also add a feature where 2 friends can play any of the available games in their personal chat. In addition to this, we could allow the user to create a game within the game group and allow any member of the group to play.

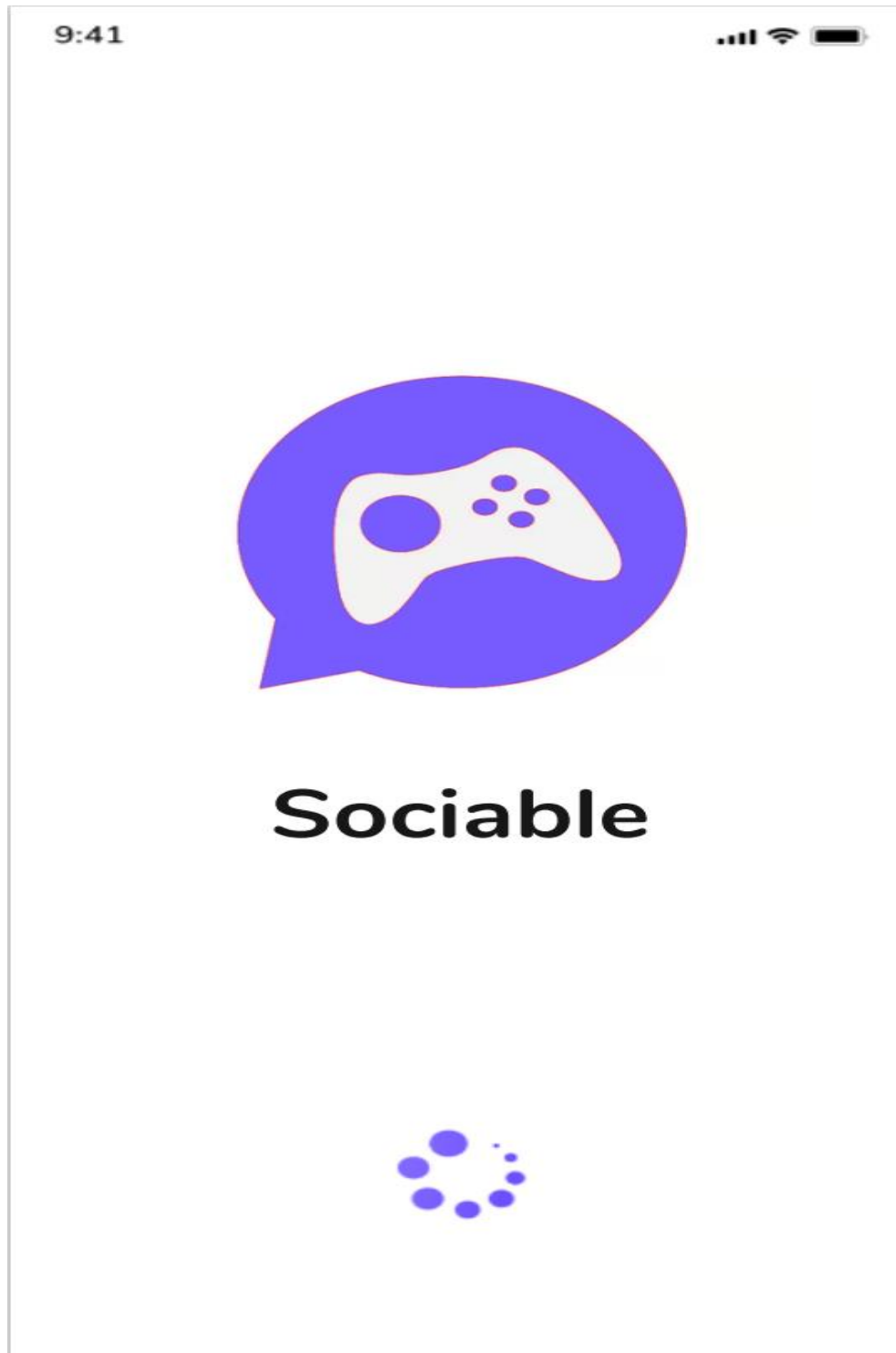
- **Prototype**

We first created a prototype of the user's profile layout

- **Testing**

We tested our solution to the chatting problem and found another problem which is what if a player's question is inappropriate so we went back to the ideate state and tried brainstorming for a solution which is : the question will be first reviewed by an admin

## 7.2 UI Screens





9:41



Ahmad Yasser

Advanced



Total Score

32324

Your Friends

24

Level



12

13

Your History

See All



Tetris

Total Score: 14

2nd



Among Us

Total Score: 32

3rd

9:41



## ← Most Asked Questions

Discover Questions

Your Question

General

Account

Game

Lag

Q Search



**How do I mute the game's sound?**



You'll find a mute button when you pause the game.

**What is the highest level in Among Us?**



**How do I remove a friend?**



**How can I report a user's behavior?**



**How do I delete my account?**

