**Game description**

**Idea**

I plan to create a single player multicharacter game where characters move around the map via tiles, collecting items and competing with other characters. To achieve this, I will be using a mySQL database along with C# to create an intuitive frontend and efficient backend.

**Gameplay**

* The aim of the game is to collect as many items as possible by moving around a tiled map. While doing this, characters must cautiously move around the map, avoiding trapped tiles. If a character moves onto a trapped tile the character will die and lose the game.
* Upon entering into the game, the character will start on the home tile (alternative tile if taken by an existing character).
* Each tile has a maximum of one item or trap. Items and traps are spawned randomly onto tiles.
* The overall game will end when all the characters have quit or died.
* Characters can move up, down, left, or right using arrow keystrokes or the buttons provided.
* If a character leaves the game and the game is still open, their progress will be saved, and they can resume.
* If a tile is occupied by a character, another character cannot be on the same tile.
* When a player tries to join a game, they will be asked to configure their character before joining.
* The game has a maximum time duration. If the game has not been completed before the time runs out, the character scores are calculated, the character with the highest score wins the game.

**Login and Registration**

* Upon logging in, if a player tries to log in with a username that is not established in the database, they will be given the option to register.
* If the player does have an existing account, they will be given the option to try to login again with the correct credentials.
* If the player attempts to login with a valid username, but the password is incorrect, they will be given 5 attempts before the account will be locked.
* If a player account is locked the player will have to ask an Administrator to unlock the account.

**Lobby**

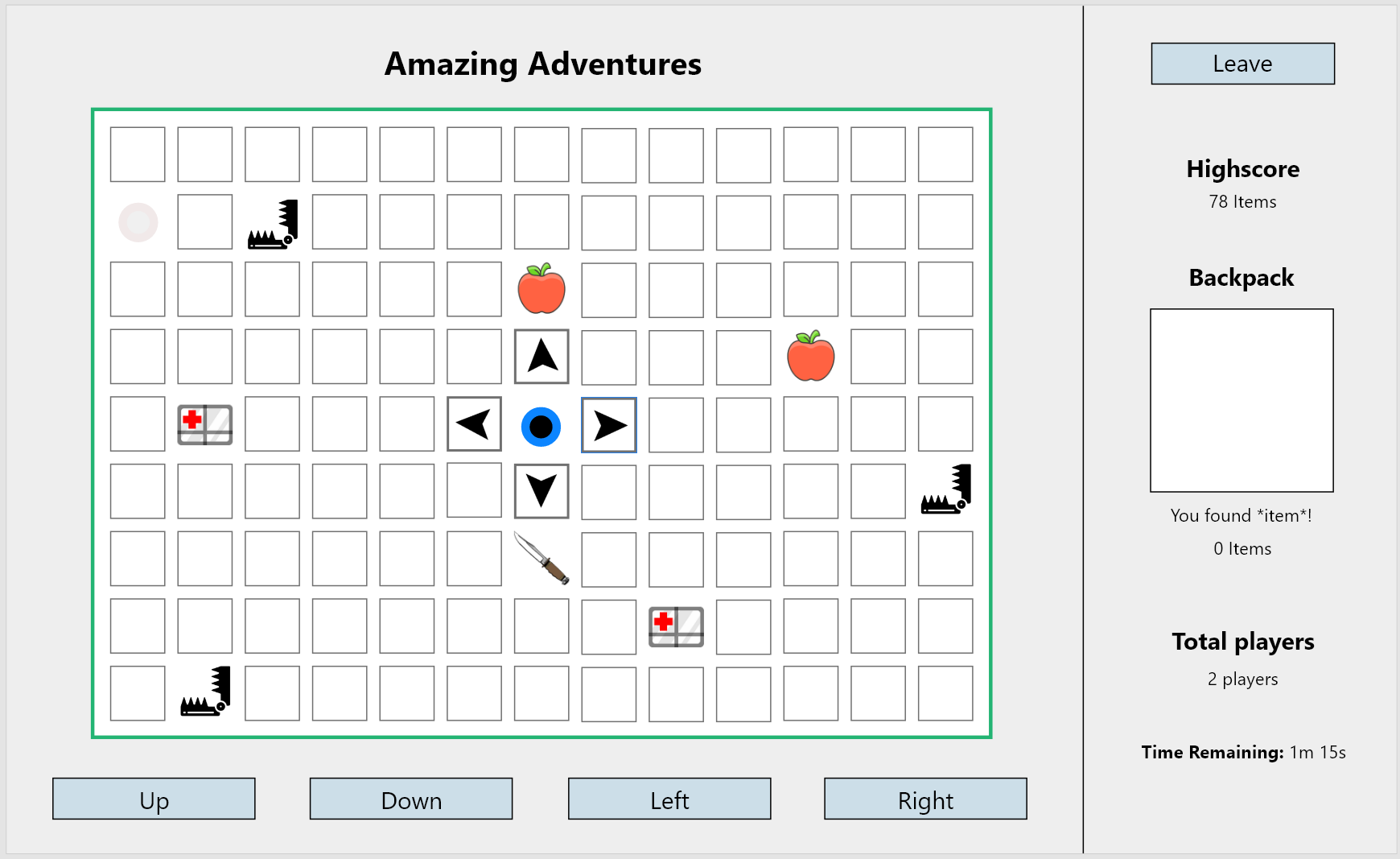
* Inside the lobby, players will be shown the total amount of players and available games they can join.
* Global chat is also available for any player to use.
* Players can also create a game where other players can join.
* If a player is an administrator, they will have access to admin settings.
* Players also have access to their settings, where they can change their username, password etc.

**Administration Interface**

* After selecting the admin console, administrators will be shown a total list of players and active games.
* From here administrators can lock and change player accounts and delete active games.

**Storyboard**

**Storyboard 1: Gameplay**



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1.0 **Leave button** - Click to exit the game. Player is returned to lobby.

1.1 **Trap** – If a character moves to this tile they die and can no longer play.

1.2 **Other character** – This is another player.

1.3 **Current character** – This is the character that the player is in control of.

1.4 **Highscore** – This shows the user their highest score that have received.

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1.4 **Latest item** – This shows your total items as well as the latest item you have found.

1.5 **Item** – This is an item, if a character lands on this tile, they collect the item.

1.6 **Total player count** – This shows the total players in the game.

1.7 **Character movement** – These buttons can be used to move the character.

1.8 **Time remaining** – This shows the player how much time is left.

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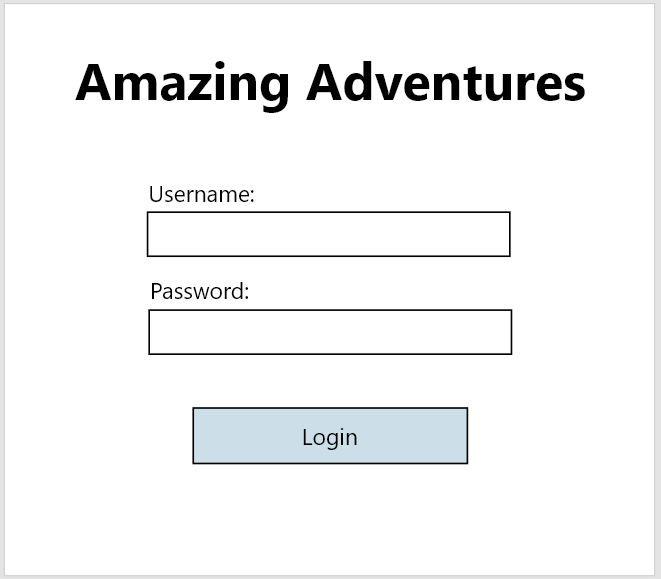
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**Storyboard 2: Login**



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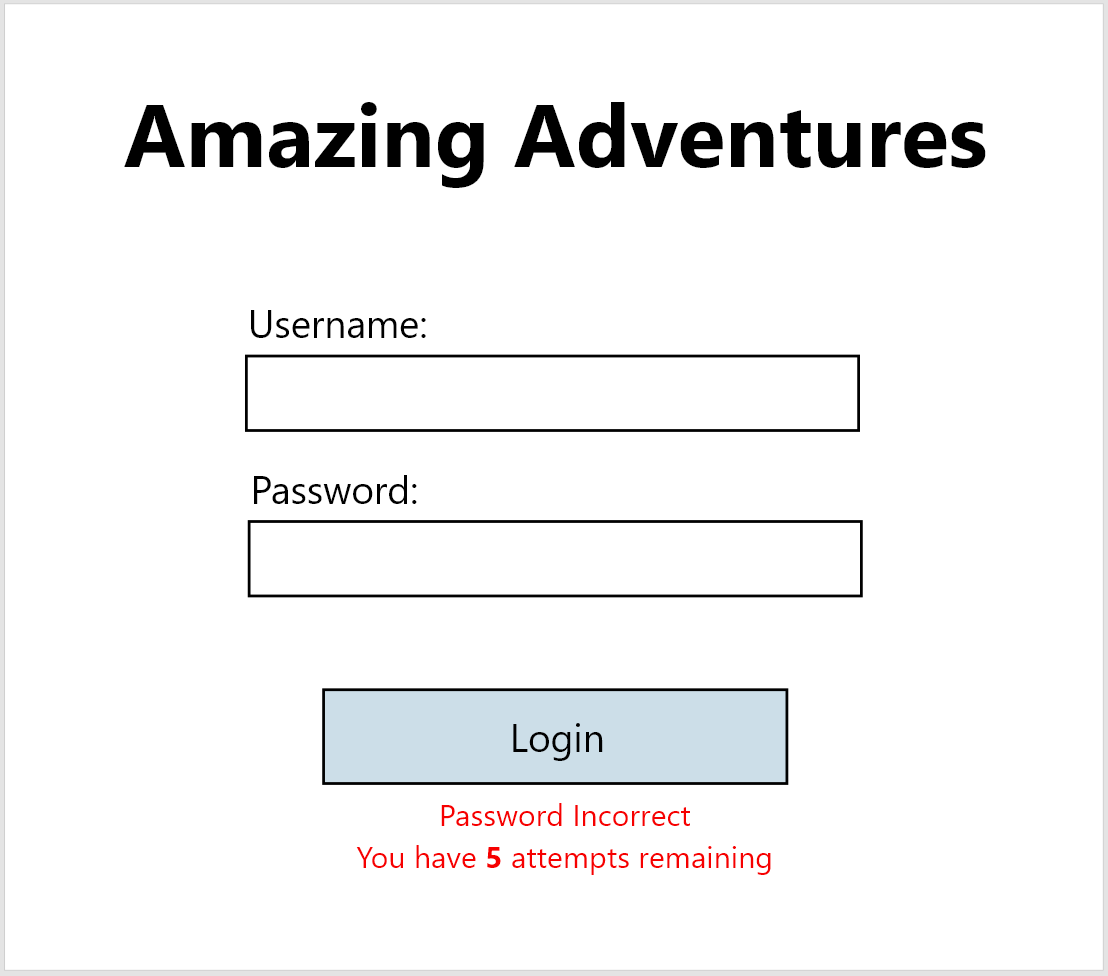
2.0

2.0 **Username field** – Input field where a user inputs their player account username.

2.1 **Password field** – Input field where a user inputs their player account password.

2.2 **Login button** – User clicks this button to login. If username or password is invalid login will be unsuccessful. If username is not a valid player account username, user is given the option to register. User has 5 login attempts before account is locked.

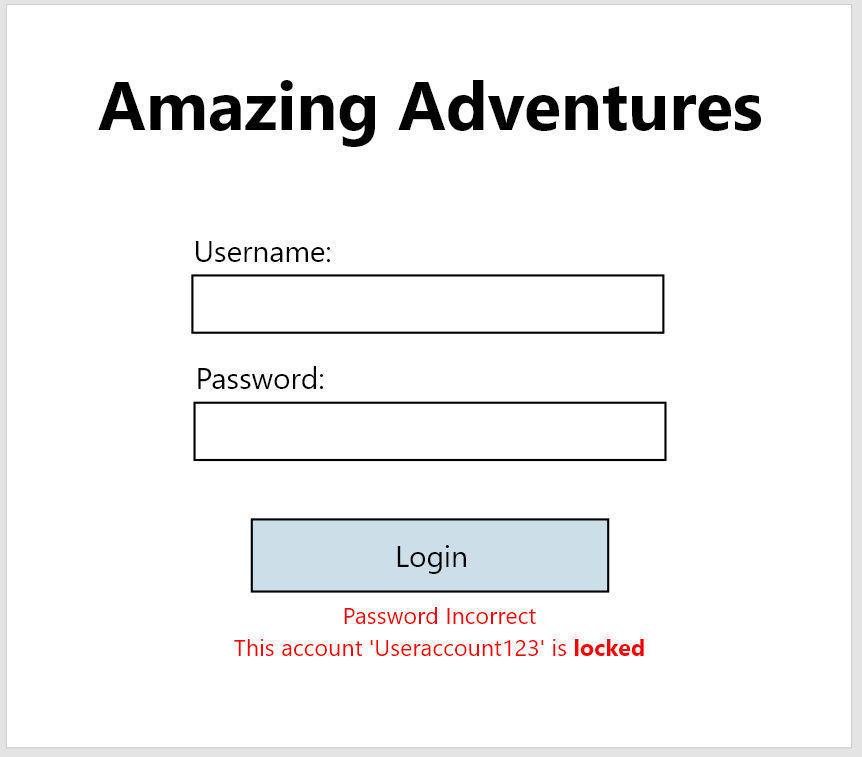
**Storyboard 3: Login – Invalid Attempt**



3.0 **Prompt** – Indicates user how many login attempts remaining.

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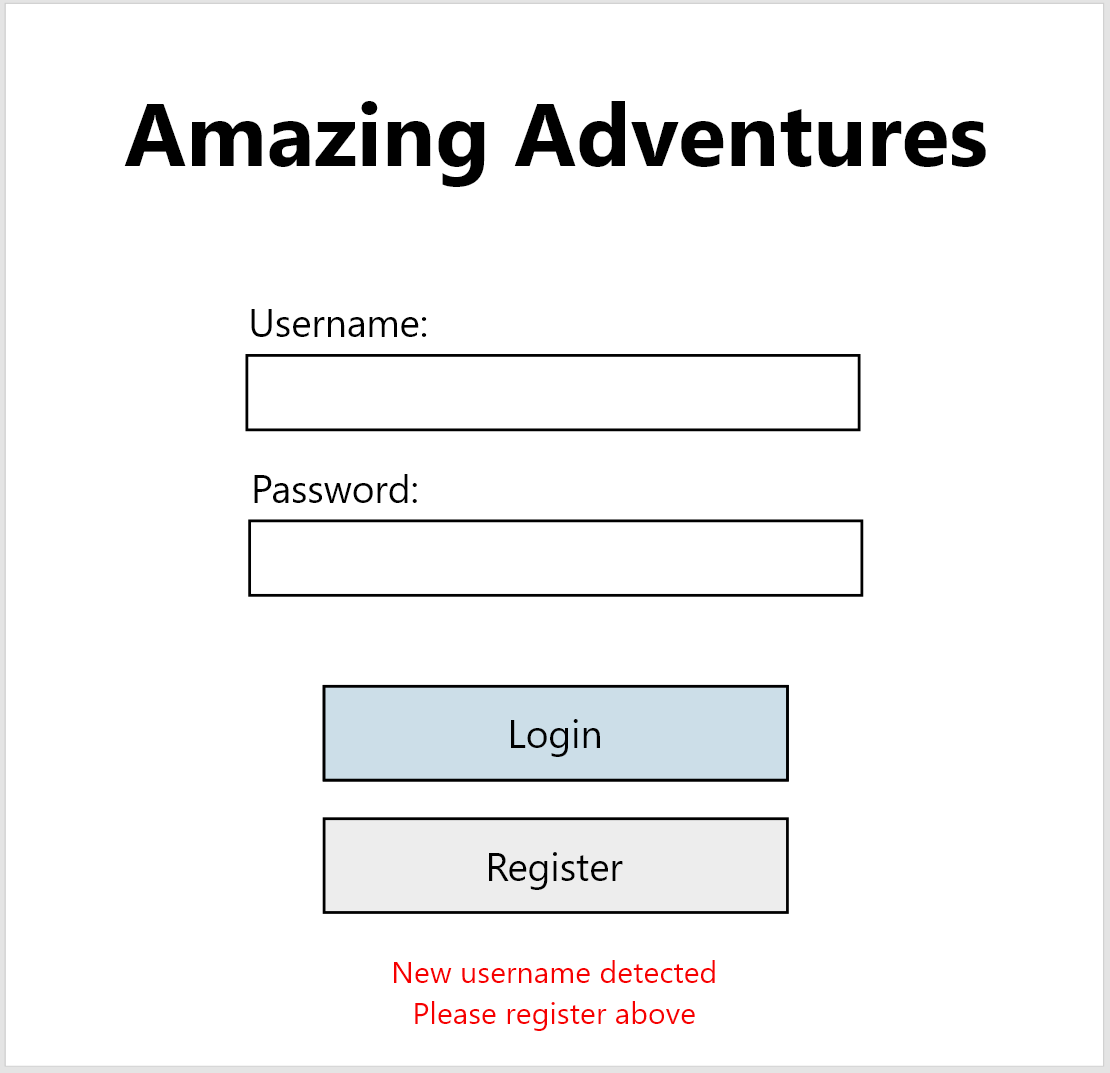
**Storyboard 4: Login – Account locked**



4.0

4.0 **Prompt** – Indicates to user that the account they tried to log into has now been locked.

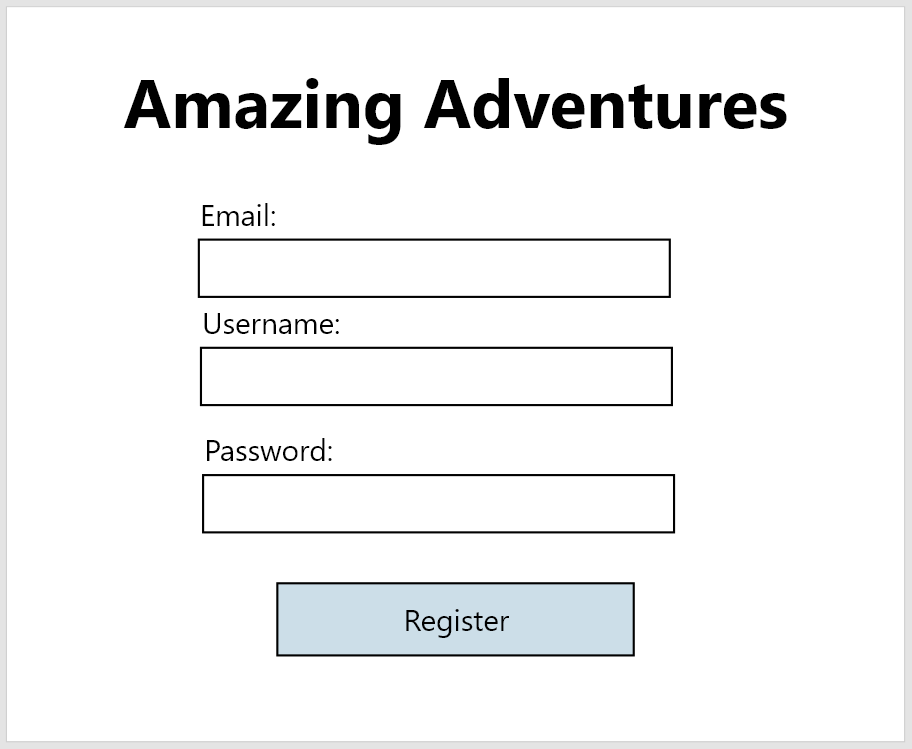
**Storyboard 5: Login – New Username Detected**



5.0

5.0 **Prompt** – Indicates to user that the username they entered is not recognised in the database. Registration button is shown, given the user the option to register a player with that username.

**Storyboard 6: Register Form**



6.0 **Email field** – Input field where a user inputs their player account email address.

6.1 **Username field** - Input field where a user inputs their player account username.

6.2 **Password field** - Input field where a user inputs their player account password.

6.3 **Register button** – User clicks this button to register the account. If username, password, or email address is invalid, registration will be unsuccessful.

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**Storyboard 7: Lobby**



7.0 **Current games list** – This shows the current games that players can join.

7.1 **Online players list** – This shows the list of players that are online.

7.2 **High-score** - This shows the players high-score (most items they have collected in a game).

7.3 **New game buttons** – Players can press this button to create a new game.

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7.4 **Chat button** – Players can press this button to open the global chat.

7.5 **Setting buttons** – Players can press this button to view their player settings.

7.6 **Join game button** – Players select a game from the current games list and press this button to join it.

7.7 **Admin console button** – Players can press this button open administrator settings. Only players with administrative access can see this button.

7.8 **Logout button** - Players can press this button logout of their account. User is returned to login screen.

**Storyboard 8: Administrative settings**



8.4 **Refresh button** – Administrators can press this button to refresh the total player and active games lists.

8.5 **Close game button** – Administrators can press this button after selecting an active game from the list to close/remove the game.

8.6 **Return to lobby button** – Administrators can press this button to exit the administrator settings and return to the lobby.

8.7 **Delete button** – Administrators can press this button after selecting a player account from the list to delete the player account.

8.0 **Active games list** – This shows the current games that players can join, as well as the total player count to the left.

8.1 **Total player list** – This shows the list of player accounts created.

8.2 **Player settings button** – Administrators can press this button after selecting a player from the player list to view that players account settings.

8.3 **Clear chat button** – Administrators can press this button to remove all messages from the global chat.

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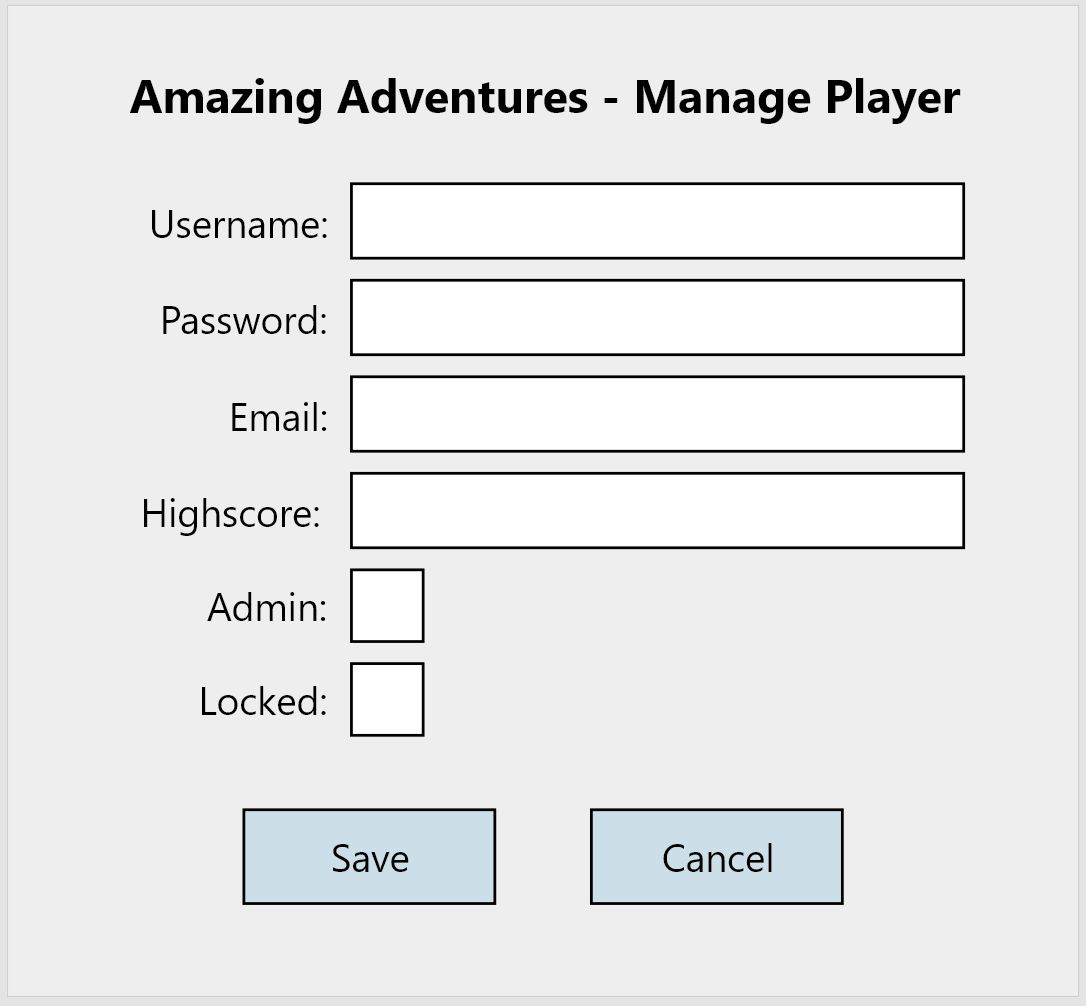
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**Storyboard 8: Administrative settings**

**Storyboard 9: Administrative player settings**



9.0 **Username field** – Input field where a user inputs their player account username.

9.1 **Password field** – Input field where a user inputs their player account password.

9.2 **Email address field** – Input field where a user inputs their player account email address.

9.3 **Highscore field** – Input field where a user inputs their player account highscore.

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9.4 **Admin tick box** – Tick box field where a tick represents the user has administrative access.

9.5 **Locked tick box** – Tick box field where a tick represents the players account is locked.

9.6 **Save button** – Administrators click this button to save the players details. If details are incorrectly added, administrator is prompted.

9.7 **Cancel button** – Administrators click this button to cancel the players detail form. This will close the form and return the admin to the administrative settings.

**Storyboard 10: Player settings**



10.0 **Username field** – Input field where a user inputs their player account username.

10.1 **Password field** – Input field where a user inputs their player account password.

10.2 **Email address field** – Input field where a user inputs their player account email address.

10.3 **Save button** – Players click this button to save their players details. If details are incorrectly added, player is prompted.

10.4 **Cancel button** – Players click this button to cancel their players detail form. This will close the form and return the player to the lobby.

10.3

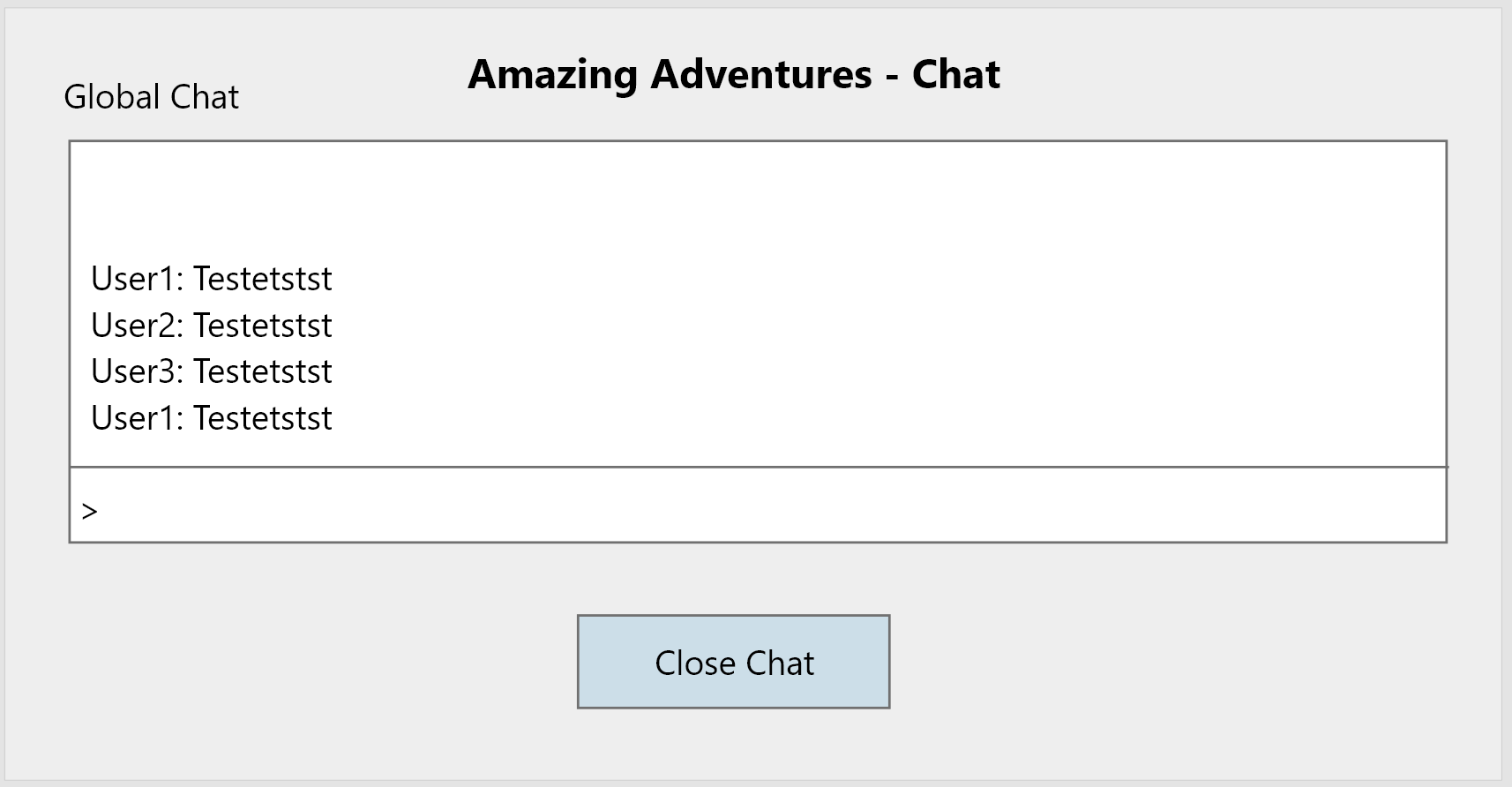
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**Storyboard 11: Global chat**



11.0 **Global chat text** – Players will see every player’s text chat and date/time of publish.

11.1 **Global chat input box** – Input field where a user inputs the text they wish to add to the chat. Once finished, press keystroke enter to submit.

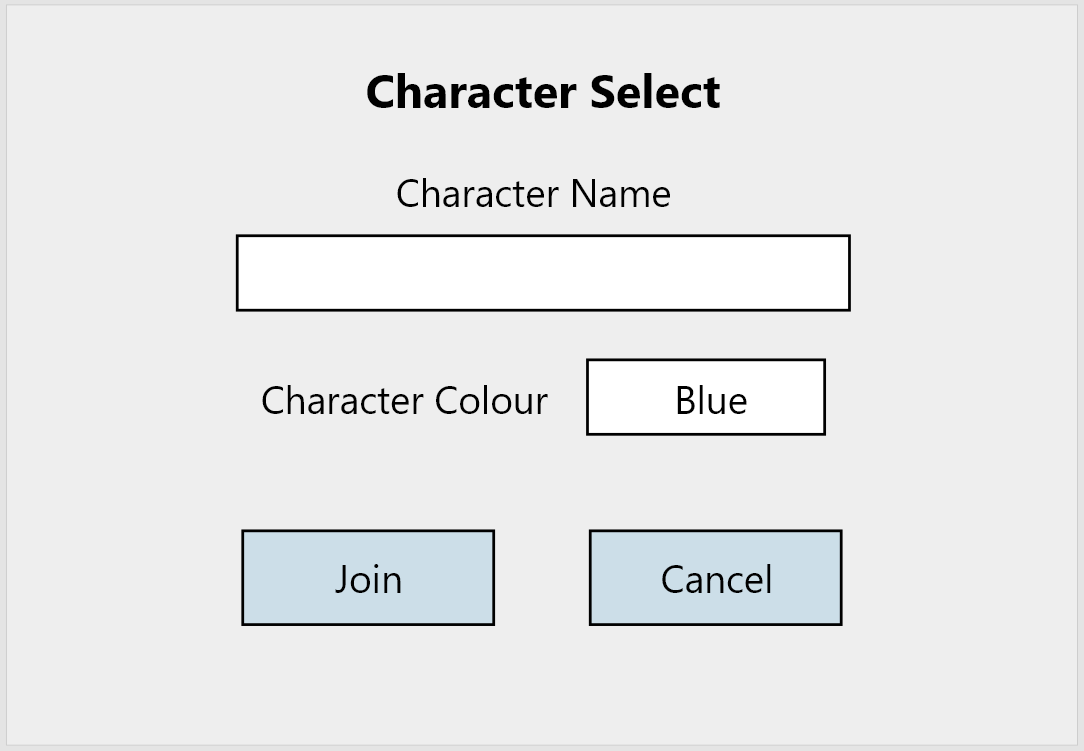
11.2 **Close chat button** – Players click this button to close the global chat form. This will close the form and return the player to the lobby.

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**Storyboard 12: Character creation**



12.0 **Character name input box** – Input field where a player inputs their character name.

12.1 **Character input colour** – Input field where a player chooses their character colour.

12.2 **Join button** – Players click this button to join the game. This will close the form and will add the player to the game.

12.3 **Cancel button** – Players click this button to close character creation form. This will close the form and return the user to the lobby.

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**Storyboard 13: New game form**



13.0 **Game name input box** – Input field where a player inputs their game name.

13.1 **Game duration input box** – Input field where a player chooses their games time/duration.

13.2 **Create button** – The player clicks this button to create the game. This will close the form and the player will be asked to create a character.

13.3 **Cancel button** – Players click this button to close the new game form. This will close the form and return the user to the lobby.

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**Storyboard 14: Error prompt**



13.0 **Ok button** – Players click this button to acknowledge the error.

When an error occurs, this form will pop up notifying the user of their error. The message in red will change depending on the error.

14.0

**CRUD Diagram**