

Use Cases

Use Case 1: Manage Player Profiles

Characteristic Information

Create, read, update, delete player profiles

Primary Actor: Human Scrabble player

Stakeholders and interests:

User: Would like to be able to create a profile to play Scrabble.

Software developer: Wants simple maintenance of the scrabble player profiles.

Preconditions:

The Scrabble game has been opened and the registration screen appears.

The system is connecting with the database.

Success Guarantee (Postconditions):

The username is read in correctly and then saved by the user.

The name of a user can be changed.

Deletes player profiles without rest.

Main Success Scenario:

1. The user opens the game and wants to register a new profile.
2. The system assigns a random ID.
3. The user enters commands via an input device, e. g. a keyboard.
4. Player can now set a name and password and can choose one from 4 avatars.
5. The player confirms his input with the "Register" Button.
6. The system displays the new name player.
7. He will be redirected to the main menu.

Alternative Scenarios:

1. The user has already assigned a name and now he wants to change his name.
 - a. The user can create a new profile or change his name via the player statistics page.
2. The user wants to log in after a successful registration.
 - a. The user now selects the login button instead of registration.
3. The gamer only wants to see his player profile.
 - a. Via the menu page he gets to his profile.
4. User wants to update his player profile.
 - a. The user navigates to the player statistics where he can delete his name.
5. The player wants to delete his scrabble profile.
 - a. The deletion can be done on the player statistics page.

Exceptions:

The player profiles cannot be saved, because there is no connection to the database.

- Error Message: There is no connection to the database, please connect to the database.

The name is shorter than 2 letters.

- Error Message: Your name is shorter than 2 letters. Please enter a longer name.

The name contains special characters.

- Error Message: Your input contains special characters. Please do not use special characters for your Player name.

The Player name starts with a number.

- Error Message: Please enter a letter first.

Special Requirements

1. All characters entered must be processed and displayed within 5ms.
2. The Scene change should have a low response time of max. 5ms.

Technology and Data variations

Users could enter data via a keyboard, touchscreen, mouse or similar.

Open Issues

What is the maximum number of inputs that should still be accepted?

UC5: Display Statistics

Characteristic Information

Display the game statistics for every player that played on the game server

Primary Actor: Human Scrabble player

Stakeholders and interests:

User: Would like to play scrabble and compare their performance with other Scrabble Players. In addition, the user would like to have an easy to use and clearly arranged player statistics. There should be a stable and fast connection to the database.

Software developer: Wants simple maintenance of the scrabble game statistics, not expensive to create and maintain, satisfied Scrabble players.

Preconditions:

An account has been created to which the player statistics are saved.

The system is connecting correctly with the internet and the database.

The player's statistics are retrieved from the database and displayed correctly.

Success Guarantee (Postconditions):

The statistic is will be added after each game and updated automatically.

Is properly retrieved online and displayed to the user.

Deletes game statistis profiles without rest.

Main Success Scenario:

1. The user is taken to main menu.
2. The gamer navigates to his profile created in the past.
3. He clicks on his profile.
4. Now he can see his game statistics, name and avatar.
5. The system shows e.g., the won and lost games as well as the win and loss ratio.
6. The player leaves the game statistics.

Alternative Scenarios:

The user wants to retrieve and display his game statistics in the game.

- a. The user clicks on its icon and can view the player statistics.

The Scrabble player wants to see the player statistics of other players.

- a. The player can click on the avatar of other players in an online game to see this.

The player wants to delete his Profile and the game History.

- a. The user navigates to his game statistics via the menu. There he can delete his profile completely via the "Delete" button.

Exceptions:

The game statistic cannot be displayed, because there is no connection to the database

- Error Message: There is no connection to the internet, please connect to the database.

No statistis can be displayed because no games have been played yet.

- Error Message: No data to display. Please start your first Scrabble Game.

The game statistis were not properly completed and updated.

- Error Message: The statistics has not yet been completed. Please try later again later.

Special Requirements

1. The system should make different backups. Otherwise, data loss may occur in case of failure.
2. The software should have a low response time of max. 5ms
3. Should be accessible with the PC via different operating systems, like Windows, MacOS or Linux.

Technology and Data variations

Users could enter data via a keyboard, touchscreen, mouse or similar.

Frequency of Occurrence

After a finished game.

Open Issues

Should it be possible to set the statistics to private?