

# **The Drawing Game**

## **Group 8**

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# Functional requirements

## General game

- You can click on a person's name to see his/her profile provided that the person is a member.
- You have to be at least four players to play; there are only two teams in one game session.
- The game board contains the path from finish to goal, where the first team that gets to the goal wins.
- A tutorial with complete instructions for the game is available before and during play
- *Optional:* There is possible to use a microphone, to increase the team spirit.
- *Optional:* The ability to store the drawn picture for later use.

## Drawing

- The team members take turns drawing. You cannot choose which one who should draw.
- When a player is drawing, chat and use of the microphone for that player is disabled
- During the game there is a team chat, where you can chat with your team members.
- Every guess is matched against the correct word. For the answer to be correct it has to be completely correct. Use of upper or lower case is ignored.
- While drawing it is possible to choose colors and choose between different set of drawing functions, such as: circle, straight line, rectangle/box and a fill function.

## Guessing

- One can only guess the correct word by typing it in the chat window.
- You have one minute to successfully guess the correct word that your team member is drawing. If you are unable to guess correctly it is the opposing teams turn to draw.
- If your answer is correct, you may proceed in the game by rolling a dice and move as many steps as shown by the dice (on the game board).

# Non-functional requirements

- After reading the tutorial the user should be to play the game without any problem.
- The website should be implemented using HTML.
- The server should simultaneously be able to handle at least five games.
- The server should be able to process at least 40 client's actions without at the same time.
- The system shall not disclose any members password to any other user.
- The system should be available through the Internet.

# Complete Set of Use Cases

## Use Case: Enter Game Site:

Primary Actor: The player.

Goal: Enter Game or edit profile.

### Main Scenario:

1. The use case starts when the user enters the website.
2. The system will display the login screen.
3. The user enters username and/or password.
4. while the user does not close the browser window, loop.
5. if the user select “log in”, Use **Start Frame**.
6. if the user select “edit profile”, Use **Edit Profile**.  
end if
7. The user will choose one function .  
end loop
8. The use case ends.

### Extensions:

5. The user input is invalid.  
5a1. Tell user about invalid input, try again.
6. The user input is invalid.  
6a1. Tell user about invalid input, try again.

## Use Case: Edit Profile

Primary Actor: The Player.

Goal: Successfully edit the profile.

### Main Scenario:

1. The scenario starts when the user selects Edit Profile.
2. The system displays the edit profile screen.
3. The user edit user information.
4. while the user does not select Exit, loop.
5. if the user selects “Save”, save user profile.
6. if the user selects “Cancel”, Use Enter Game.

### Extensions:

5. The system is unable to save user profile.  
5a1. Tell user about problem.

## Use Case: Start Frame (member/non-member)

Primary Actor: The Player.

Goal: Create/Join a game room.

### Main Scenario:

1. The use case starts when the user logs in to the system.
2. *while* the user does not select Log out, *loop*.
3. The system will display the main chat window.
4. The system will display the game room window.
5. The system will display the friends list.
6. *if* the user selects a player, display profile.
7. *if* the user selects Create Game Room, **Use Create Room.**
8. *if* the user selects Join Game Room, **Use Join Game Room.**
9. *if* the user selects Chat, Display chat message.  
*end if*
10. The user will select a function.  
*end loop*
11. The use case ends.

### Extensions:

7. The user is unable to create a room.  
7a1. Tell user about the problem.
8. The user is unable to join a room.  
8a1. Tell user about the problem.

## Use Case: Create Room

Primary Actor: The Player.

Goal: Create game room.

### Main Scenario:

1. The use case starts when the user Creates a room.
2. *while* the user does not select OK or Cancel, *loop*
3. *if* the user selects Game Room Name, display game room name.
4. *if* the user selects Number of Players, display number of players.
5. *if* the user selects Password, Display password.
6. *if* the user selects OK, **Use Game room.**
7. *if* the user selects Cancel, **Use Start Frame.**  
*end if*
8. The user will select a function.  
*End loop*
9. The system will display the game chat.
10. The system will display the teams.

### Extensions:

3. The user enters invalid input.
  - 3a1. Tell user about problem.
4. The user enters invalid input.
  - 4a1. Tell user about problem.
5. The user enters invalid input.
  - 5a1. Tell user about problem.

## Use Case: Game Room

Primary Actor: The Player.

Goal: Start the game.

### Main Scenario:

1. The user case starts when the user has created a room.
2. *While* the user does not select Start Game or Exit, *loop*.
3. *if* the user selects Chat, Display chat message.
4. *if* the user selects Player, Display player profile.
5. *if* the user selects Team, Display team
6. *if* the user selects Start Game, **Use Play Game**.
7. *if* the user selects Exit, **Use Start Frame**.  
*end if*
8. The user selects a function.  
*end loop*
9. The use case ends.

### Extensions:

6. The user is unable to start the game
  - 6a1. Tell the user reason (not enough players in the room).

## Use case: Play Game

Primary actor: The Player

Goal: Play one game of the drawing game.

### Main scenario:

1. the game starts and a team is chosen to start as 'big-rollers' and one player from both teams are chosen to be the drawer.
2. The "big-roller" team rolls the dice.
3. Then walks the number of steps the dice shows. There are 3 kinds of squares that the team land on, double guess, single guess and goal.
4. A, the team lands on a double guess, **Use Double Guess**.  
B, the team lands on a single guess square, **Use Single Guess**.  
C, the team lands on the goal square, **Use Goal Square**.

### Extensions:

- 1,2,3,4: A player exits during the game
- 1,2,3,4 1a: There are still 2 or more players left in both teams then nothing happens, the

game continues with the players left.

1,2,3,4 1b There are less than 2 players left in a team but there are 3 players in the opposing team. Then one player automatically changes team.

1,2,3,4 1c, There are less than 2 players in one team and there are 2 players in the opposing team. Then the game is paused until another player joins the game.

## **Use case: Single Guess**

Primary actor: The Player

Goal: Complete a drawing event.

### **Main scenario:**

1. All sound from and to the drawer is muted. And the drawer can not see or write in the chat window.
2. The drawer from the “big-roller”-team receives a word to draw. The player has a limited time of one minute to draw the word. Only the team members of the drawer is allowed to guess.
3. A, If the team members of the drawer guesses correctly the team stays as 'big-rollers' but the next player in line gets to be the drawer. Go back to step 2 in Play game  
B, If the team is not able to guess the right word the other team gets to be “big-rollers” and the next player in that team gets to be the drawer. Go back to step 2 in Play game.

## **Use case: Double Guess**

Primary actor: The Player

Goal: Complete a double drawing event.

### **Main scenario:**

1. All sound from and to the drawer is muted. And the drawer can not see or write in the chat window.
2. The drawers from both teams receive a word to draw. The drawers have a limited time of one minute to draw the word. Both the teams are able to guess what word it is.
3. A, The team that guesses correctly gets to be big-rollers and the next player in that team gets to be the drawer. Go to step 2 in Play game.  
B, If no one is able to guess the right word the other team gets to be “big-rollers” and the next player in that team gets to be the drawer. Go back to step 2 in Play game.

## **Use case: Goal Square**

Primary user: The Player

Goal: Win the game

1. The team that gets here first I declared winner
2. the game ends.
3. Update the users that were signed in.
4. use case ends.