

# CS 408 Product Backlog

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## Problem Statement

In most mobile games, players were mostly sitting down to play the game. This style of gaming has often been regarded as being bad for health. A lot of games are also single player games where players do not interact with others. However, a game that is challenging, encourages social interaction, fun yet involves moving around is not only beneficial to our health, but also satisfying as well.

## Background Information

### Target Users

Mobile phone users, typically children, teens, and young adults.

### Similar Applications

Psych: A multiplayer party game where users can craft an answer to each question. The options that everyone crafted is paired to the correct answer and players have to pick which one they think is right. Your goal is to trick people to think your response is believable and also guess the correct option.

Drawful:

Multiplayer party game which challenges players to draw weird and funny prompts. Users would then have to guess based on the drawings, what the correct prompt is.

### Limitations

A smart phone with camera is required.

## Environment

Android Studio will be used to build our Android app and Java is the language we are going to use. GIT will be used for source control. MySQL will be applied for database. Socket.io will be used to support real-time communication.

## Requirements

Backlog Id	Functional Requirements	Hours	Status
1.	As a user, I would like to be able to insert my unique username	3	Completed in Sprint 1
2.	As a user, I would like to be able to select my faction (eg. monsters, humans)	3	Completed in Sprint 1

<b>3.</b>	As a user, I would like to choose an avatar from my faction	<b>4</b>	Completed in Sprint 1
<b>4.</b>	As a user, I would like to be able to set the time limit for each round	<b>2</b>	Completed in Sprint 2
<b>5.</b>	As a user, I would like to be notified if I'm the player setting the hint	<b>3</b>	Completed in Sprint 1
<b>6.</b>	As a user, I would like to be able to set a hint for the specific round	<b>3</b>	Completed in Sprint 1
<b>7.</b>	As a user, I would like to have a timer for when that round ends	<b>3</b>	Completed in Sprint 2
<b>8.</b>	As a user, I would like to have a table to keep track of the scores of all players	<b>2</b>	Completed in Sprint 1
<b>9.</b>	As a user, I would like to have group battle between races (if time allows)	<b>5</b>	This feature was only supposed to be implemented if we have extra time.
<b>10.</b>	As a user, I would like to know if there are any other players in the same area (if time allows)	<b>5</b>	This feature was only supposed to be implemented if we have extra time.
<b>11.</b>	As a user, I would like to be able to upload a photo if i found the object	<b>6</b>	Completed in Sprint 1
<b>12.</b>	As a user, I would like to approve the correct picture if i am the player who gave the hint	<b>3</b>	Completed in Sprint 1
<b>13.</b>	As a user, I, as the player who gives the hint, would like to give more hints if no players are able to guess out the correct object	<b>2</b>	After analyzing, we decide not to implement this feature. Since when hint giver finds out that hint is too hard and changes the hint, there is no enough time for players to look at the new hint and take pictures. Thus, it makes little sense to implement this feature.
<b>14.</b>	As a user, I, as the player who gives the hint, would like to decide the round winner based on time spent when two or more players uploaded the correct pictures	<b>2</b>	After analyzing, we realize this feature does not make sense as well because picture answers are very subjective and

			there is no correct answer per say for the picture.
<b>15.</b>	As a user, I would like to see pictures uploaded by other players	<b>3</b>	In-progress: Would be completed before the demo.
<b>16.</b>	As a user, I would like to receive information once I join the game	<b>3</b>	Completed in Sprint 2
<b>17.</b>	As a user, I would like to have a table to keep track of the scores of all teams for team battle (if time allows)	<b>2</b>	This feature was only supposed to be implemented if we have extra time.
<b>18.</b>	As a user, I would like to leave the game in single battle by clearing my score and notifying other players when the game is in progress	<b>3</b>	Completed in Sprint 2
<b>19.</b>	As a user, I would like to leave the game in team battle by notifying other team members when the game is in progress (if time allows)	<b>3</b>	This feature was only supposed to be implemented if we have extra time.
<b>20.</b>	As a user, I, as the player who gives hint, would like to upload correct picture when none other players are able to find the right object	<b>3</b>	Completed in Sprint 2
<b>21.</b>	As a user, I would like to be notified when hint changed or search area changed	<b>3</b>	After analyzing, we decide not to implement this feature. Since when hint giver finds out that hint is too hard and changes the hint, there is no enough time for players to re-look for new hint and take pictures. Given that we are not going to implement reset hint feature, there is little sense to implement notification for hint changing or area changing. Thus, we decide not to implement this feature.
<b>22.</b>	As a user, I would like to clear game history when current round is over	<b>3</b>	Completed in Sprint 2

Non-Functional Requirements	
1.	As a user, I would like to have a fluid interface
2.	As a software engineer, the system must support up to 8 users in a single game.
3.	As a software engineer, the system must be able to support multiple games at the same time.
4.	As a software engineer, I want the service to be available all time.
5.	As a user, when the game has started, other users would not be able to access the same game.
6.	As a user, I would like the game to be user-friendly.
7.	As a user, I would like to have a secure connection to the game
8.	As a user, I would like to have my location data securely stored

## Use Cases

Backlog Id	Description
1.	<p>Name: Insert user name</p> <p>Action:</p> <ul style="list-style-type: none"> <li>Click start game</li> <li>Enter User name</li> <li>Click Ok</li> <li>Click Yes when prompted to confirm</li> </ul> <p>System Response:</p> <ul style="list-style-type: none"> <li>A dialog pops up to ask for username</li> <li>Confirmation dialog pops up</li> <li>Dialog closes</li> </ul>

2.	<p>Name: Select a race</p> <p>Action:</p> <ul style="list-style-type: none"> <li>• Click on a box with the specific race you want to choose</li> <li>• Click next to continue</li> </ul> <p>System Response:</p> <ul style="list-style-type: none"> <li>• 2 Boxes with different races are shown on the screen</li> <li>• Screen changes to avatar selection</li> </ul>
3.	<p>Name: Select an avatar</p> <p>Action:</p> <ul style="list-style-type: none"> <li>• Select an avatar</li> <li>• Click next to continue</li> </ul> <p>System Response:</p> <ul style="list-style-type: none"> <li>• Different avatars are shown on the screen</li> <li>• Once it has been selected by another user, the avatar is grayed out</li> </ul>
4.	<p>Name: Set a time limit</p> <p>Action:</p> <ul style="list-style-type: none"> <li>• Click "Set time" command</li> <li>• Enter a number in terms of minutes</li> <li>• Confirm the setting</li> </ul> <p>System Response:</p> <ul style="list-style-type: none"> <li>• Time limit setting dialog pops up</li> <li>• Wait for user to enter a number</li> <li>• Dialog pops off</li> </ul>
5.	<p>Name: Be notified if I am the player to set hint</p> <p>Action:</p> <ul style="list-style-type: none"> <li>• Receive system message notifying that I (username) am the player to set hint for this round</li> </ul> <p>System Response:</p> <ul style="list-style-type: none"> <li>• Notify the user to set the hint by generating a system message visible to the public</li> </ul>
6.	<p>Name: Set a hint for a specific round</p> <p>Action:</p> <ul style="list-style-type: none"> <li>• Click ""Set a hint" command</li> <li>• Enter a hint of an object within the search area</li> <li>• Confirm the hint</li> </ul>

	System response: <ul style="list-style-type: none"> <li>Hint setting dialog pops up</li> <li>Wait for user to set a hint</li> <li>Dialog closes</li> <li>Generating public message to inform other players the hint for this round</li> </ul>
7.	Name: Time the current round  Action: <ul style="list-style-type: none"> <li>Receive a system message when the current round has 1 minute left</li> </ul> System response: <ul style="list-style-type: none"> <li>Notify the user that there is only 1 minute left</li> </ul>
8.	Name: Keep track of the players' scores by table  Action: <ul style="list-style-type: none"> <li>Click the "Player Scores" command</li> <li>Click the "OK" command to quit</li> </ul> System response: <ul style="list-style-type: none"> <li>Show all the players' scores in a table</li> <li>Highline the user current score</li> </ul>
9.	Name: Begin a group battle between races  Action: <ul style="list-style-type: none"> <li>Choose a group and send a battle request</li> <li>Click "Begin" to begin a group battle</li> <li>Click "Player Scores" to check the scores</li> <li>Quit group battle</li> </ul> System response: <ul style="list-style-type: none"> <li>Show all the group online</li> <li>Wait for user to accept request</li> <li>Group battle begin</li> <li>Group battle end</li> <li>Show the winner and scores comparison</li> </ul>
10.	Name: Check players in the same game  Action: <ul style="list-style-type: none"> <li>Click "Other players" command</li> <li>Click "X" command</li> </ul> System response: <ul style="list-style-type: none"> <li>Pop up a list of players or empty list if no player is in the same game</li> <li>Pop off the list</li> </ul>
11.	Name: Upload picture

	<p>Action:</p> <ul style="list-style-type: none"> <li>• Find the hint described object, and take a picture of the object</li> <li>• Click “Upload picture” button</li> <li>• Select picture from phone camera roll</li> <li>• Click “Confirm” to upload the picture</li> </ul> <p>System response:</p> <ul style="list-style-type: none"> <li>• Have access to phone camera roll</li> <li>• Quit camera roll and upload selected picture</li> </ul>
12.	<p>Name: Approve correct picture</p> <p>Action:</p> <ul style="list-style-type: none"> <li>• Look through all uploaded pictures in result page</li> <li>• Determine correct picture</li> <li>• Select the correct picture and click “approve” button</li> </ul> <p>System response:</p> <ul style="list-style-type: none"> <li>• Once the round is finished, players will be redirected to result page</li> <li>• Wait for hint giver to approve correct picture</li> <li>• The approved picture wins the round</li> </ul>
13.	<p>Name: Give more hints</p> <p>Action:</p> <ul style="list-style-type: none"> <li>• Click “Extra hint” button</li> <li>• Give more hints if other players have trouble finding the described object</li> <li>• Click “Submit” to send message</li> </ul> <p>System response:</p> <ul style="list-style-type: none"> <li>• Pop up extra hint dialog when “extra hint” button is clicked</li> <li>• Wait for user to give more hints</li> <li>• Close dialog and send message</li> </ul>
14.	<p>Name: Decide round winner when two or more correct pictures uploaded</p> <p>Action:</p> <ul style="list-style-type: none"> <li>• Look through all uploaded pictures in result page</li> <li>• Determine correct picture</li> <li>• The uploaded picture in result page is order by uploading time, the first uploaded picture is order first</li> </ul> <p>System response:</p> <ul style="list-style-type: none"> <li>• Redirect players to result page</li> <li>• Wait for hint giver to approve correct picture</li> <li>• Select the first uploaded correct picture and click “approve” button</li> <li>• The approved picture wins the round</li> </ul>
15.	<p>Name: See pictures uploaded by other players</p>

	<p>Action:</p> <ul style="list-style-type: none"> <li>• When time is up, all players will be redirected to result page</li> <li>• Able to see pictures uploaded by other players in result page</li> </ul> <p>System response:</p> <ul style="list-style-type: none"> <li>• Once a player join the game, the system will automatically allow the player to receive public message, and redirect the player to result page when game is over</li> </ul>
16.	<p>Name: Be notified when joining the game</p> <p>Action:</p> <ul style="list-style-type: none"> <li>• Receive a notification when the user joins the game</li> </ul> <p>System response:</p> <ul style="list-style-type: none"> <li>• Notify the user when the user joins the game</li> </ul>
17.	<p>Name: Track team scores</p> <p>Action:</p> <ul style="list-style-type: none"> <li>• Click "Team Score" command</li> <li>• Swipe through different teams</li> <li>• Click "X" command</li> </ul> <p>System response:</p> <ul style="list-style-type: none"> <li>• Pop up a table of team score</li> <li>• Move to the table of different teams</li> <li>• Pop off the table</li> </ul>
18.	<p>Name: Leave game in single battle</p> <p>Action:</p> <ul style="list-style-type: none"> <li>• Click "Leave game" button</li> <li>• Click "Confirm" to leave game</li> </ul> <p>System response:</p> <ul style="list-style-type: none"> <li>• Pops up confirm dialog when "leave game" button is clicked</li> <li>• Remove the player from the game when "confirm" button is clicked, return to game when "cancel" button is clicked</li> <li>• Close confirm dialog</li> <li>• Clear the player's score in database</li> <li>• Generate system message to inform other players in the same game</li> </ul>
19.	<p>Name: Leave the game in team battle</p> <p>Action:</p> <ul style="list-style-type: none"> <li>• Click "Leave game" button</li> <li>• Click "Confirm" to leave game</li> </ul> <p>System response:</p>



	<ul style="list-style-type: none"> <li>• Pops up confirm dialog when “leave game” button is clicked</li> <li>• Remove the player from the game when “confirm” button is clicked, return to game when “cancel” button is clicked</li> <li>• Close confirm dialog</li> <li>• Generate system message to inform other team members in the same game, and the team score will not be affected</li> </ul>
20.	<p>Name: Upload correct picture when no one can find it</p> <p>Action:</p> <ul style="list-style-type: none"> <li>• As the player who sets the hint and no one else is able to find correct click “upload picture” button</li> <li>• Select picture from phone camera roll</li> <li>• Click “confirm” to upload picture</li> </ul> <p>System response:</p> <ul style="list-style-type: none"> <li>• Have access to player’s phone camera roll</li> <li>• Wait for player to select picture</li> <li>• Close connection with phone camera roll and upload select picture which is visible to everyone in the game</li> </ul>
21.	<p>Name: Be notified for hint or search area change</p> <p>Action:</p> <ul style="list-style-type: none"> <li>• Receive a system message that the hint is changed</li> <li>• Receive a system message that the search area is changed</li> </ul> <p>System response:</p> <ul style="list-style-type: none"> <li>• Notify the user that the hint is changed</li> <li>• Notify the user that the search area is changed</li> </ul>
22.	<p>Name: Clear game history</p> <p>Action:</p> <ul style="list-style-type: none"> <li>• Players cannot go back to result page when a round is over</li> </ul> <p>System response:</p> <ul style="list-style-type: none"> <li>• When a round is over, pictures on result page are cleared and will not be stored in database</li> </ul>