

Criteria A — Planning

Background

My client is Kaasvi Oberoi — who is currently studying business and design at Northeastern University. She thoroughly “enjoy[s] art”⁵¹ and as a result some of her “favourite games are drawing-based games”⁵¹. From interactions with my client, I found that she wants a drawing game as an application on her phone; she said: “because when I want to play with my friends, a phone is the only device I have with me.”⁵³ She wants an application so that “a group of friends can join a game and play together from their own phones.”⁵⁹

This application should be made because she is “yet to find an app to fit my [Kaasvi’s] needs”⁵⁶. All the current substitutes for a team drawing game “are only available on computers”⁵⁶. This is a problem as she is extremely busy and the time she does get to relax and play a game is often during a commute. I am extremely excited to make this application as this will be the first time I will be making a drawing application and this is also the first time I will be making a phone application.

Rationale

The proposed product will be an “Android application”⁶³ with capabilities of connecting to the internet. Since there is an android application the two options for language are java and C++. I chose java as it has many advantages over C++, especially the problem of memory leaks that occurs in C++ which do not happen in java. To enable multiple players in a game, an online database will be used. The application will need to take “the drawing board of the drawer [and it] has to be displayed on all players’ phones.”⁷² so that they can guess what is being drawn and their team can progress on the board.

When a user opens the application they will be presented with the option of joining a random game, joining a private game or creating their own game. When players join a game, they will be connected to a table in a database where they can send and receive data.

Once the players are in the game, the application will “split players into 2 random teams.”⁷¹ The teams will have one person that draws, and the other members in the team will guess what is being drawn. If the drawing is guessed correctly within 90 seconds, the team will advance on the board by the number they rolled on a dice. If the word is not guessed within the time, the turn ends and the team will stay in the same position for the next turn. The word to be drawn will be randomly chosen from a table in the database.

Success Criteria

1. The application must run on the Android operating device
2. The application must be able to read from and write to a mySQL database so that connection between players can be made
3. When a user enters the application they should be provided with the option to join a random game, join a private game or create their own game. Depending on the selection a different set of instructions will be followed to set up the game.
4. The application should connect between 4-8 players per game in the game type chosen
5. Everybody inside a game should have a “unique username”⁸² so that everybody is identifiable
6. Once the game begins, it must be able to split users into “2 random teams”⁷²
7. There will be 2 roles in the drawing team each round, drawer and guesser. The opposing team will just be spectators for the round. The drawer and guesser must change every round so that through the game all players play every role

8. The drawing board must show a real-time image on all devices from the device that is being drawn on
9. "The pen should have different drawing colours, opacity and thickness." ⁶⁸ These are important as it makes drawing accurate representations of the word given much easier. The colours will use RGB sliders so that there are more than 16 million different colour possibilities
10. The application must have an eraser so that a mistake in drawing can be fixed
11. There must be a random number generator from 1 to 6 to mimic a dice roll so that teams can advance on the board
12. The application must have a "timer" ⁶⁸ so that the round ends after 90 seconds if the word is not guessed correctly
13. Users should be able to suggest new words to add to the game so that there is a range of words and the game stays interesting