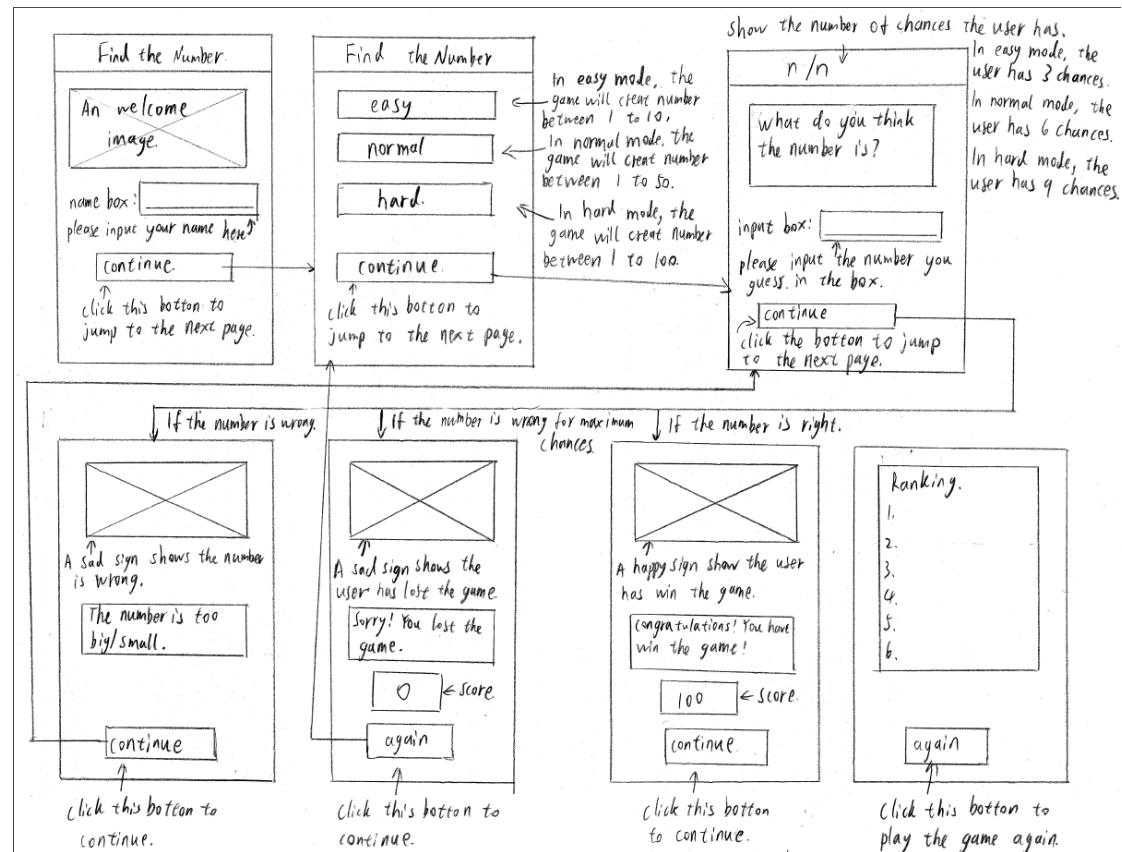


Bulls And Cows

EECS 1022 Section M

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Find the number Phase 2 Extension for Phase 3 Dead Line 2



Technologies and tools

For our application, we used Android Studio as our implementation software. java.util were also used to track our user's scores and create the leaderboard.

Higher Design of Classes

Our application contains three classes: MainActivity, BAC, and BACUser.

MainActivity is used to create our application's menu. This includes creating a new user, creating the buttons to choose the difficulty, and, checking the ranking of users. BAC is responsible for storing each user account, and adding a user to the list when one is created. Finally, BACUser is responsible for creating the user account instances, and storing the instance's score, and name. BACUser is also responsible for creating the game for the users to play. The game will generate a random number and the user must guess it in limited attempts. If the user guesses wrong, then the application will tell the user whether his guess was too big or too small. If the user guesses right, then the game will give the user an amount of score based on the difficulty they choose. If the user fails, then the application will tell the user the correct

answer and adds no score. When the user is done playing, then they may click on finish, which will store their instance, preventing them from playing on this account, and ask the user to create a new account.

Interactions/Dependencies

When a user ran the application, they are first prompted to create an account by entering their name, this then calls the constructor of BACUser and creates a new BACUser instance. MainActivity will then send this instance to BAC and ask it to add it to the bacUser, where it will then create a new BACUser instance list, deep copy all the previous instances and the new instance to a new list, and return the list to MainActivity. The user then has the choice of playing the game or checking the ranking. If the user wishes to play the game, they can choose a difficulty, and MainActivity will call BACUser's method guessNumEasy/ guessNumNor/ guessNumHard (based on the difficulty chosen) and let the user play. If the user wishes to check the leader board, then MainActivity will sort the list of users based on the score, and then display it to the user.