

## Number Charades's High Level Design Of Classes

## **MainActivity**

#### Instances:

- StartGameButton: Button - HighScoreButton: Button - HowToPlayButton: Button

### **Methods:**

#### + openStartGame()

▶This method accesses the StartGame class through the StartGame Button.

#### + openHighScore()

→This method accesses the HighScore class through the HighScore Button.

#### + openHowToPlayButton()

▶This method accesses the HowToPlay class through the HowToPlay button.

## Instances:

- StartGameButtonEasy: Button
- StartGameButtonMedium: Button
- StartGameButtonHard: Button

#### Methods:

integer parameter for the difficulty option depending on

## + openPlayArea(int difficultyNum)

↓This method accesses the PlayArea class, taking an

**StartGame** 

## **PlayArea**

#### <u>Instances:</u>

- count <- 59: Integer - countdown: TextView - count2 <- 5: Integer - guess: TextView - count3 <- 5: Integer - increment: TextView - score <- 0: Integer - correctIncorrect: TextView - correctValue <- 1: Integer - availableHints: TextView - amtHints <- 3: Integer - hintDisplay: TextView - diffSet <- 0: Integer

- buttonValueList <- 0: Empty Integer ArrayList

- playAreaButton1: Button - playAreaButton2: Button - playAreaButton3: Button - playAreaButton4: Button - playAreaButton5: Button - playAreaButton6: Button - hintMenuButton: Button

#### **Methods:**

↓This method generates a certain amount of random integers depending on the player's chosen difficulty. Generates integer values between -100 and 100 and assigns those values to the buttons.

#### + checker(int buttonValue)

↓This method checks if the user's input is correct and will either update points if the user guesses correctly, remove points if the user guesses incorrectly, and call the gameOver method if the user loses all points.

↓This method displays a hint (depending on whether the user has enough, or used up all their hints) and will also display a EXIT button to return to the main menu.

#### + gameOver()

↓This method displays the end screen along with the user's stats for this game.

**HowToPlay** 

**HighScore** 

This class displays the high score of the user and also has

an MAIN MENU button to return to the main menu.

This class displays the rules of the game and also has an MAIN MENU button to return to the main menu.

# Technologies/Tools

Android Studio for the app implementation



Figma for the UI/UX designs