# **Our Lost Friend**

## **UML Diagrams**

#### Start

f: JFrame background: ImageIcon backgroundLabel: JLabel login: JButton register: JButton userName: JTextArea password: JTextArea fileName: String in: BufferedReader out: BufferedWriter accounts : String[][] users : String[] passwords : String[] numOfUsers: int curUser: String curPass: String

- + Start()
- + saveUsers() : void
- + getUser(): String
- + getPass(): String
- + addUser(): void
- + makeButton(b : JButton) : void
- + accessGranted(): void
- + register(): void
- + login(): void
- + actionPerformed(e : ActionEvent) :
- + printAccounts(): void
- + userCheck(): boolean

#### TitleScreen

f: JFrame userName: String backgroundLabel: JLabel titleLabel: JLabel Title: ImageIcon buttonFont: Font biggerFont: biggerFont background: ImageIcon clip: Clip

- + TitleScreen()
- + actionPerformed(e : ActionEvent) : void

#### MainMenu

f: JFrame userName: String exitGame: JButton leaderboard: JButton gameStart: JButton tutorial: JButton backgroundLabel: JLabel titleLabel: JLabel authors: JLabel signedInAs: JLabel buttonFont: Font biggerFont: Font textFont: Font clip: Clip background: ImageIcon Title: ImageIcon

- + MainMenu()
- + makeButton(b: JButton): void
- + makeLabel(1 : JLabel) : void
- + actionPerformed(e : ActionEvent) : void

### **Project Functionalities**

### Start/Login Page:

- The user is presented with two text areas, one for their username and one for their password
- o If they do not have an account then they are able to register for a new account
- o If they do they are sent to the main menu
- Account information will be stored in a text file named "accounts.txt"
- User will input this information for the first time when signing up
- User will re-enter this information when logging in to the game

### Main menu:

- User is shown four buttons on a main menu where they will choose to either
  - View the leaderboard
  - Exit the game
  - See the instructions on how to play the game
  - Start the game
- In the top right corner, there will be a notification stating the account that the current instance is logged into.

### **Leaderboard (Not yet implemented)**

- High scores of each account will be stored on a text file named "scores.txt"
- High scores will be displayed on screen when the player goes to view the leaderboard in game

### **Game Exit:**

o Exits the game

## **Tutorial Game: (Not yet implemented)**

- o Gives backstory for the game
- Tells the user the objectives that they must achieve to complete a level
- Also tells the player how to gain more points
- Also includes details of the different mechanics of each level
- The goal of the game is to survive and find your lost friend
- To survive the user is to progress through each level while avoiding both monsters and obstacles
- The user will gain points just by surviving (1 point per second alive)
- The user will gain additional points for each monster they kill (5 points per kill)

### Game Play: (Not yet implemented)

- After the player presses play the user will be immediately taken into the first level
- In the levels of this game, the player must progress by moving to the right and avoiding being hit by enemies.
- o To kill enemies the player must jump on top of an enemy
- The player will complete the level when he or she reaches the end and the screen is no longer moving to the right
- After the first level is completed the player will be taken to the next level
- The players score will saved on the last level and will be saved on the leaderboard under the player's account name
- If the player dies in the game they have the option to either go to the main menu or restart the level

### Flow Chart

