

CS102**Fall 2020/21**

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~ EscApe ~

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Criteria	TA/Grader	Instructor
Presentation		
Overall		

UI Design Report

(version: final)**19 November 2021**

1. Introduction

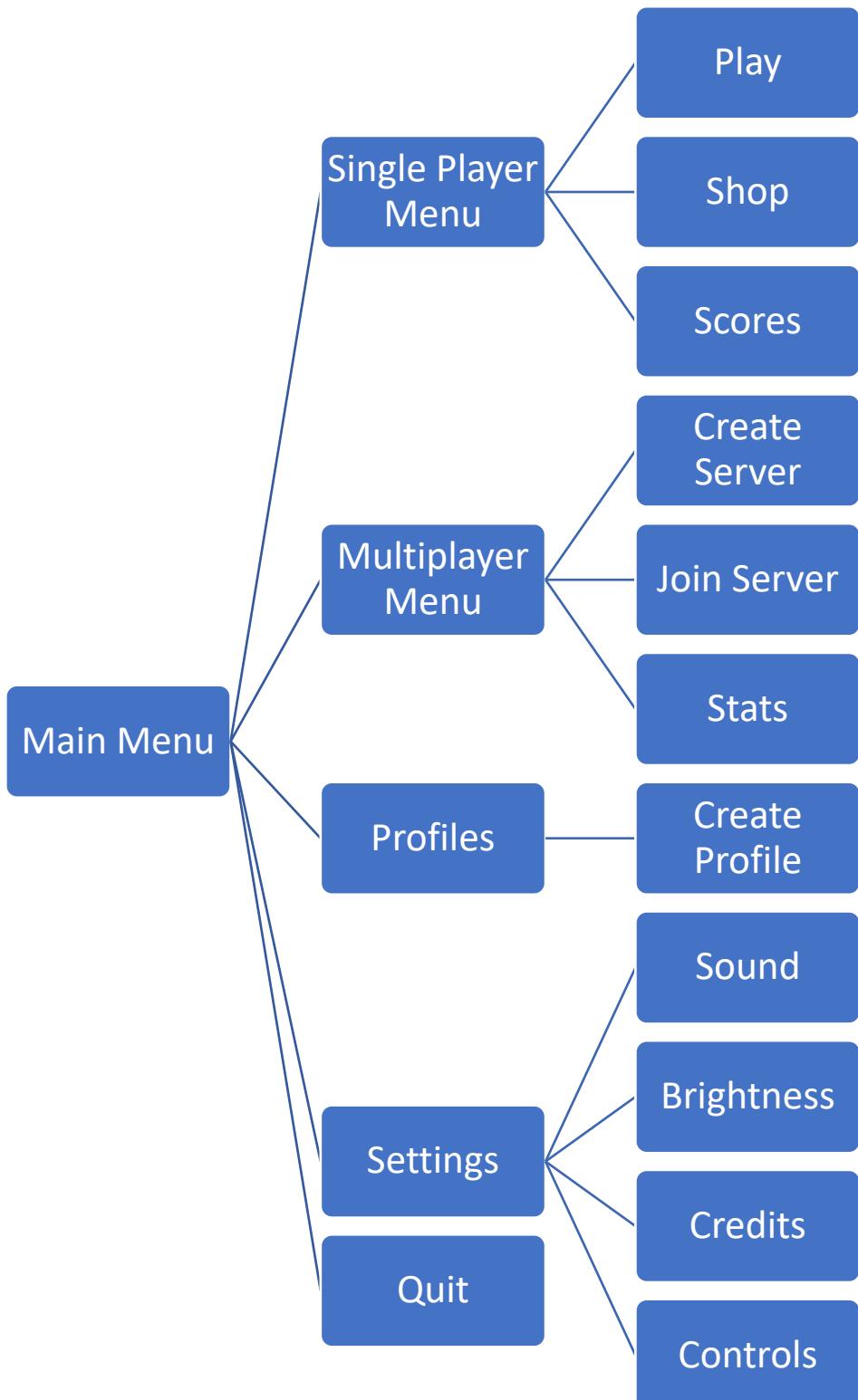
EscApe is a 2D desktop game that involves two game modes: single player and multiplayer game modes. In both of these modes, players aim to escape from a furious ape throughout the parkour that consists of grounds separated by spaces, and there are various obstacles on grounds (i.e. short walls/columns, low ceilings) that player should not hit to continue the game and obtain much higher scores. In single player game mode, players can purchase extra life and by using extra lives, they can continue the game even if they make mistake, such as hitting low ceilings, not jumping over the spaces and short walls. In this mode, there are also shield that enables safer progress and wings that provides secure flight, both of which become permanent after first purchase and can be used three times in a single game. However, they can be upgraded so that player can benefit from them longer and more effectively. In multi-player game mode, a player can create a server and other players who share common local area network with this player can see the server and join it if it is not full. After two players come together in the same server, player who created the server can start the game if both of them are ready. Then rivalry begins!

2. Details

This section provides an elaborate explanation about the flow of the game and how user interacts with the game. It also clarifies how the actions mentioned in introduction are carried out by player.

The following figures will be used to explain the user interface, the city in the background is placed to mean that there will be city landscape in the background; however, it is more likely that the real background will differ from the appeared one.

2.1 SITE MAP



2.2 Main Menu

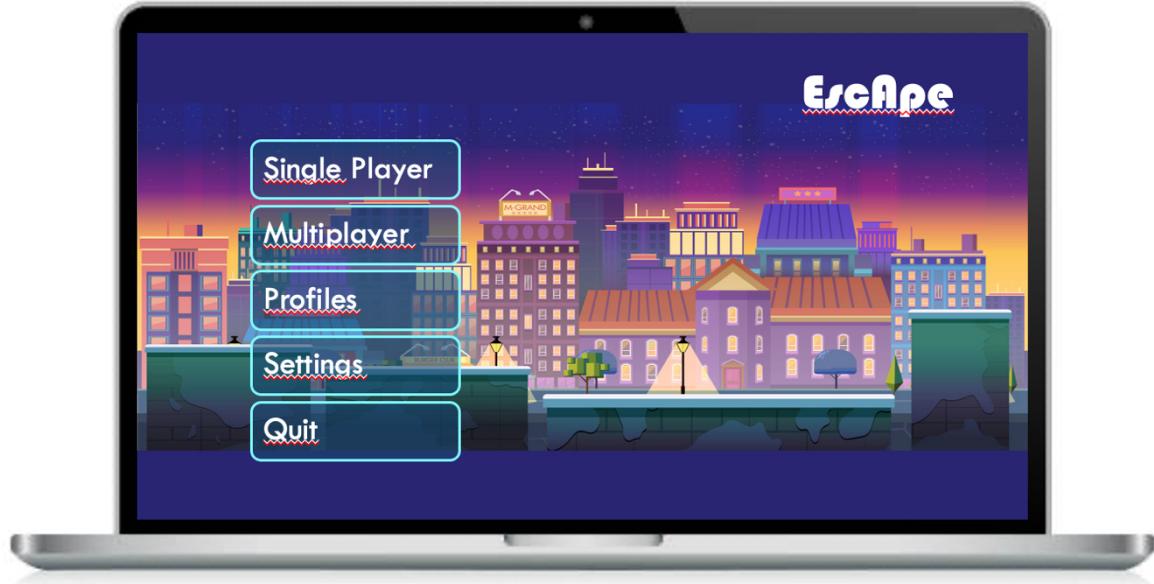


Figure-1 represents main menu that users encounter after clicking the logo of the game. This menu consists of five buttons as seen in the figure, **QUIT** button exits from the game, other buttons' function will be illustrated in next figures.



Figure-2

Figure-2 represents what kind of screen will be displayed if the user clicks **PROFILES** button. Users can add profiles or select among existing ones, the profile that was chosen appears on the screen with the selected label. The arrow on the top-left corner enables user to return back to the main menu.

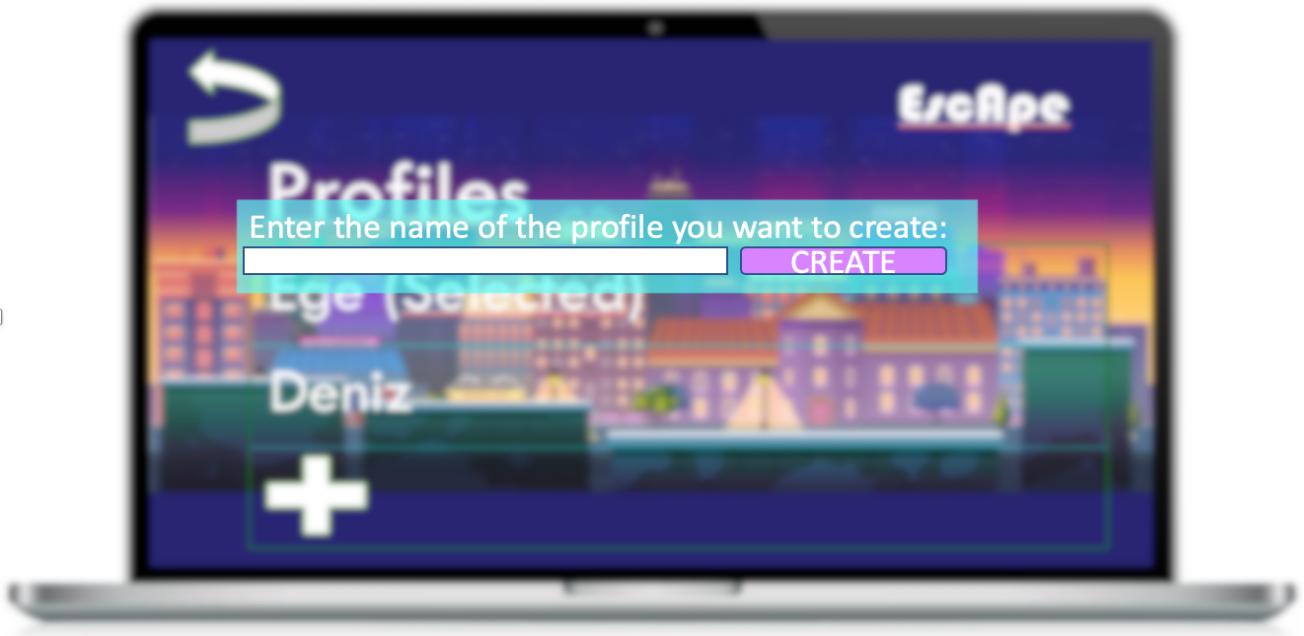


Figure-3

If user clicks the plus button on Figure-2, this screen on Figure-3 appears and the user is asked to enter a name for the profile and click **CREATE** button.

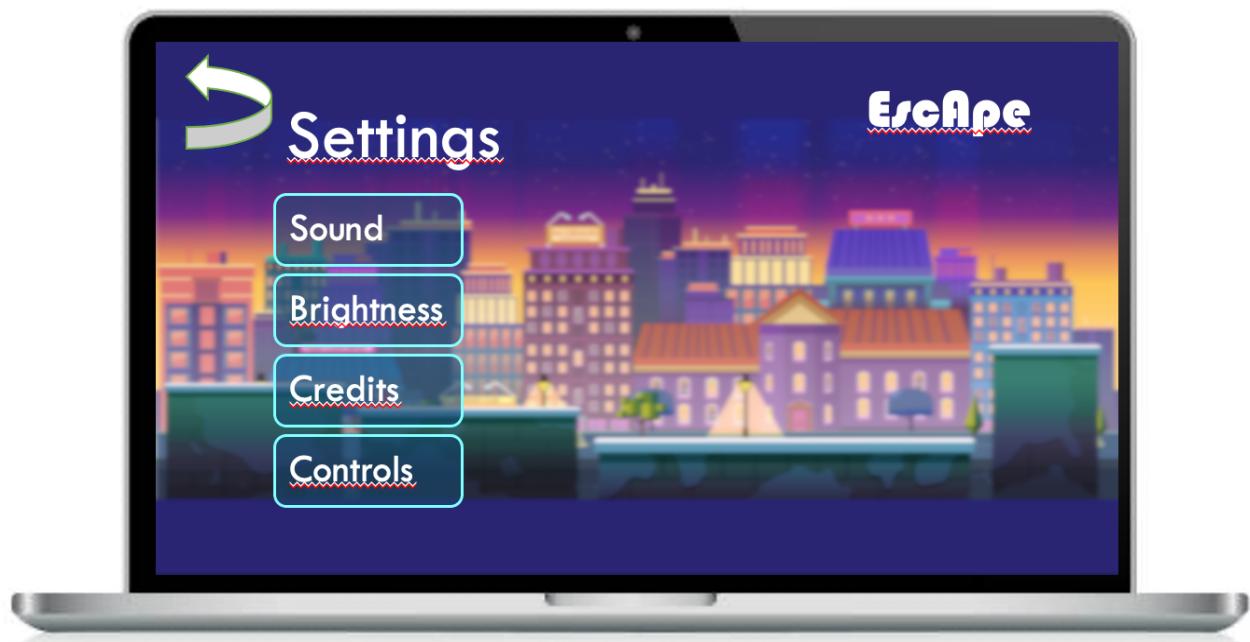


Figure 4

Figure-4 represents what kind of screen will be displayed if the user clicks **SETTINGS** button. Settings menu includes **SOUND** button to set the audio, **BRIGHTNESS** button to arrange the appropriate brightness and **CREDITS** button to display the names and information of people who have contribution to design the game. Controls button will be explained in the next figure.



Figure 5

Figure-5 represents the screen that will be displayed if the user clicks **CONTROLS** button. It displays buttons that corresponds to action near them. Pause, activate shield and activate wings buttons can only be used in single player game mode.

2.3 Single Player Game Menu

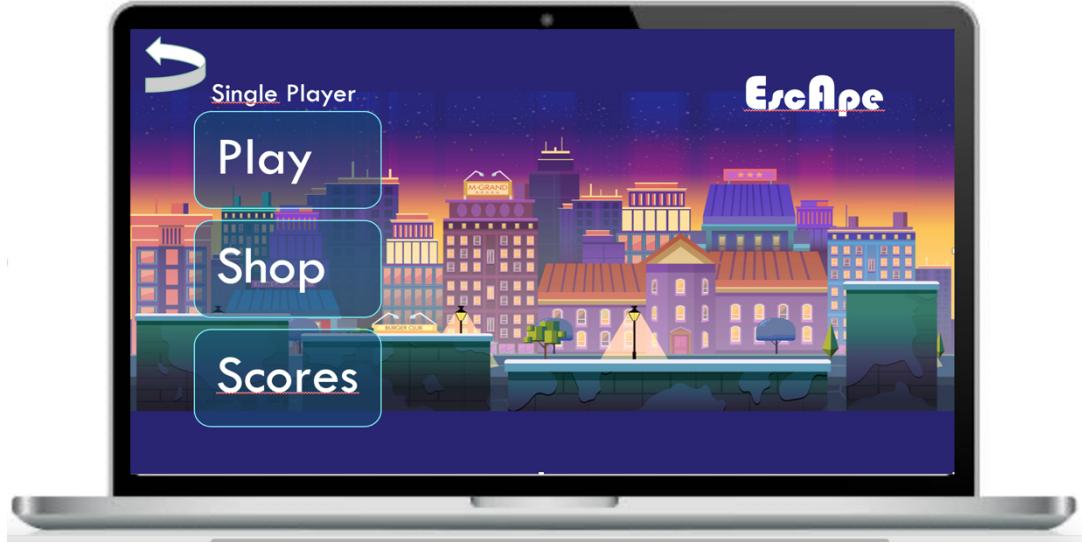


Figure-6

Figure-6 represents the screen that will be displayed if the user clicks **SINGLE PLAYER** button on the main menu. Single player menu consists of three buttons, functions of buttons will be clarified in next figures.



Figure-7

If user clicks the play button, the screen on figure-7 appears, and number five on the middle of screen represents that the countdown begins. Writings on the screen is there to describe type of obstacles, they will not be included in real game (See figure-8). Wing and shield symbol beneath the coin part means that player has unlocked these power-ups; otherwise, they would be invisible.



Figure-8

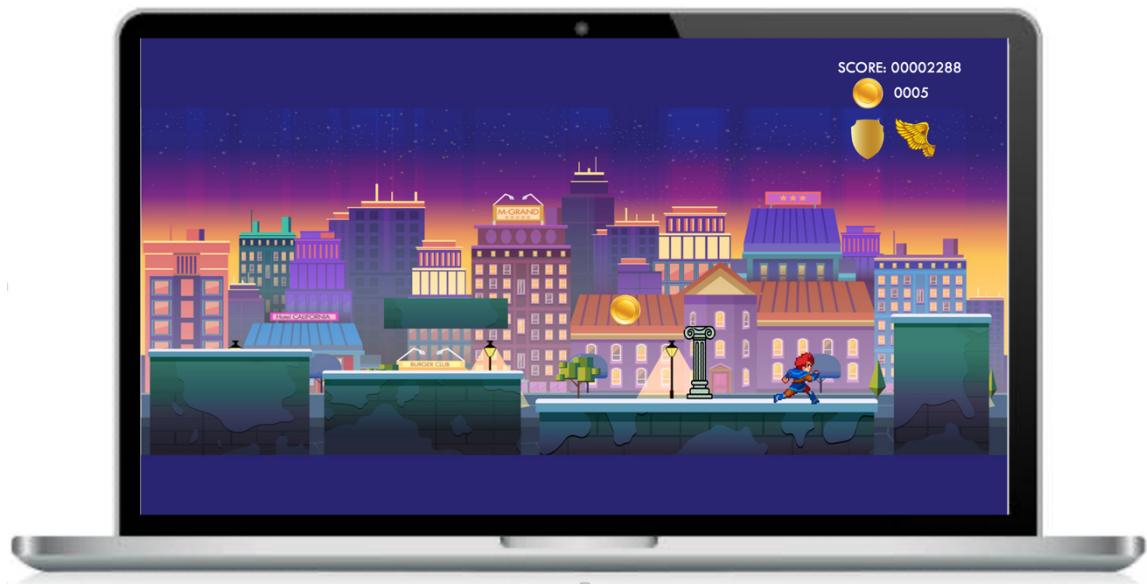


Figure-9

Figure-9 shows how game proceeds, the score and the number of collected coins increases as user proceeds and picks up coins. Character automatically runs forward, what player is expected to do is to push down and up arrows to pass the obstacles, for instance, a player must have pushed down arrow to slide under the low-ceiling and up arrow to jump over the column to come the position shown in figure-8. Notice that ape disappears while game proceeds.

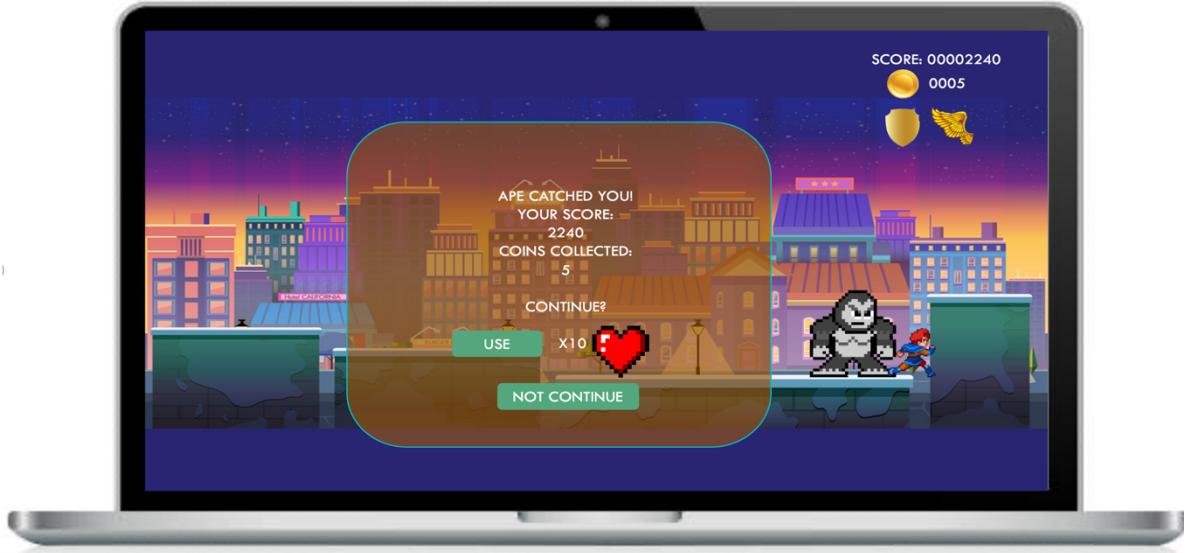


Figure-10

Figure-10 shows termination of the game, in this case it seems like user crashed the higher ground. Therefore, ape reappeared on the screen and caught the user. It can be understood from the screen that player has ten extra lives that were purchased before, and he can use by clicking **USE** button if he wants; otherwise, he can choose **NOT CONTINUE**



Figure-11

Figure-11 illustrates the shop, through which players can buy power-ups, and upgrade them. Number of coins user has is also displayed on top-right corner. On the right-hand side, number of filled boxes near the wings and shield demonstrate that how many times these power-ups have been upgraded so far, notice that since shield is not unlocked, logically is not upgraded yet. Because extra life cannot be upgraded, (x10) near the heart symbol shows how many not consumed extra life profile-owner has. Additionally, **UNLOCK**, **PURCHASE** and **UPGRADE** buttons are to perform actions that write on them. Information buttons are to display relevant information message for each power-up.



Figure-12

Recall that selected profile belongs to Ege (See figure-2). Therefore, scores section displays Ege's all times greatest and today greatest score, and other days' highest scores on which Ege played the game from his profile.

2.4 Multiplayer Game Menu

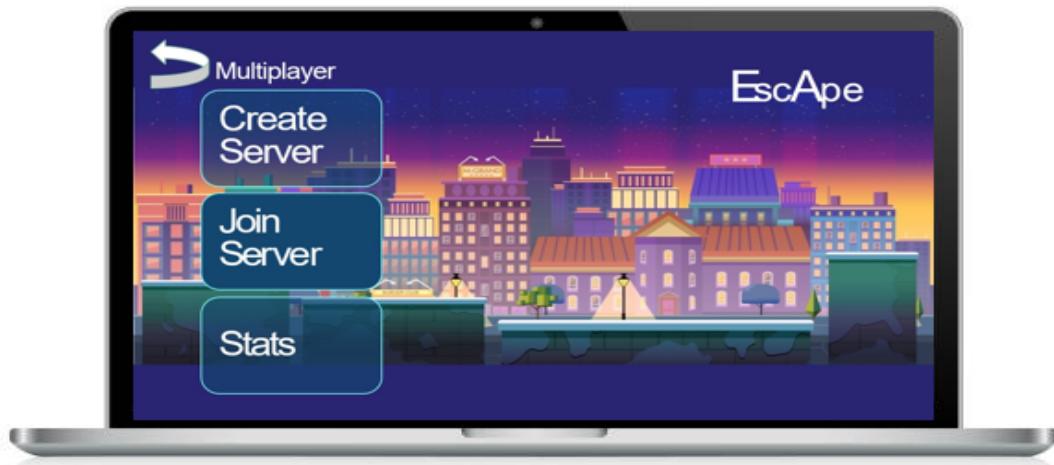


Figure –13

Figure-13 represents the screen that will be displayed if the user clicks **MULTIPLAYER** button on the main menu. Multiplayer menu consists of three buttons, functions of this buttons will be clarified in next figure.

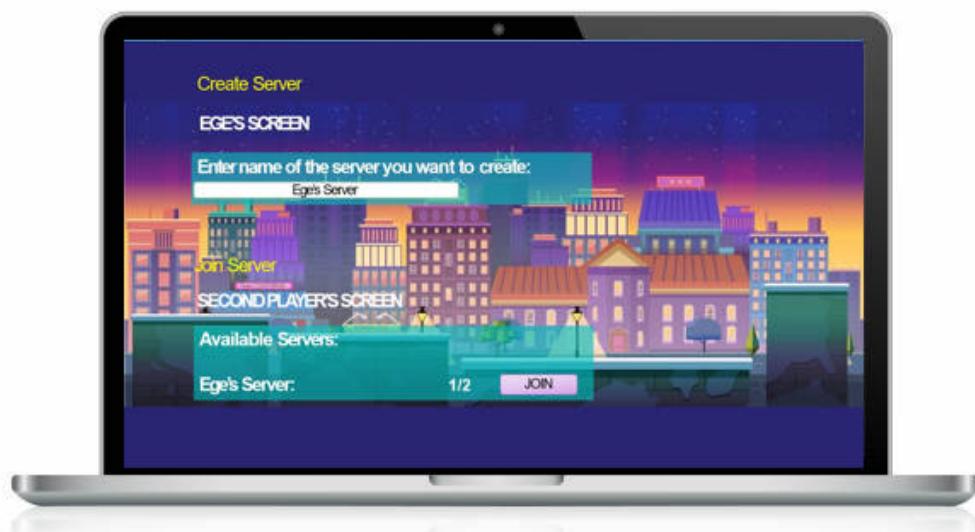


Figure-14

Figure-14 illustrates the processes of creating server and joining a server simultaneously. (In real game, these processes will not be carried out on the same page.) If the user clicks on **CREATE SERVER** button, the user is expected to enter a server name later on. The player who clicks on **JOIN SERVER** sees the available servers that he/she can join



Figure-15

Figure-15 represents the **ready-start** process after the match-up. Player who joins the server presses the **READY** button, then the game starts when the user that owns the server clicks on **START** button.



Figure-16

Figure-16 illustrates the beginning of the multiplayer game. The game starts after a 5 second countdown. Two players run the same parkour simultaneously. The same type of obstacles (low ceilings, spaces, columns/short walls) exists. One views, other user upside down. Remember that in multiplayer game mode power-ups and coins are not included.

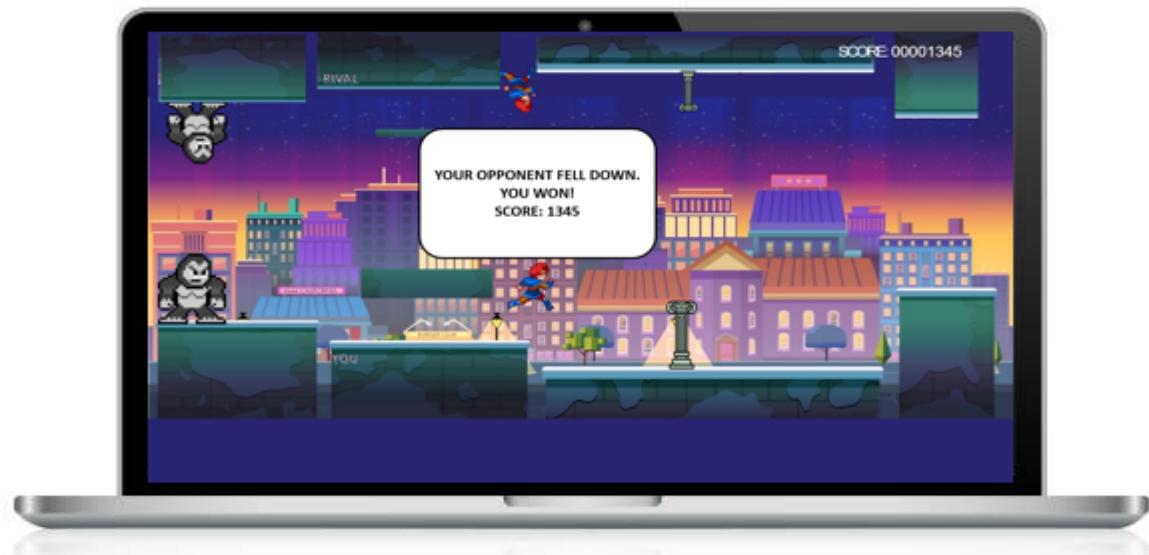


Figure-17

Figure-17 represents one of the possibilities of game termination. As seen in figure-16, one user falls down from the stage. Therefore, other user wins the game. Game generates a final message. After the message, two players return to the match-up screen.

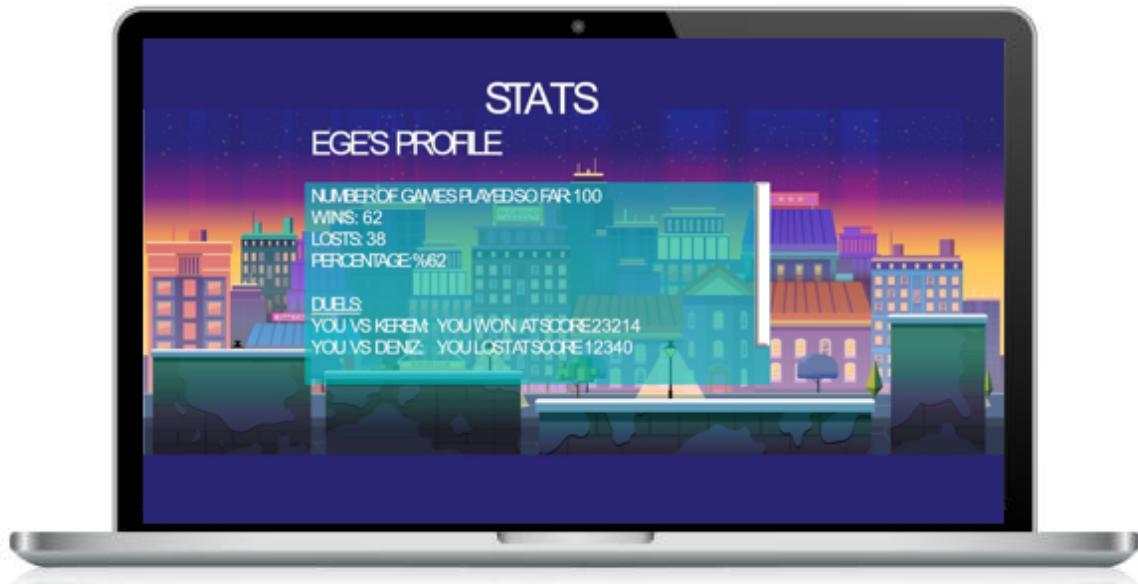


Figure-18 shows the **STATS** sub-option that represents the multiplayer game mode statistics of the user. It informs the user about total wins, total losses and win-lost percentage. It also informs the user about all the match-ups the user had with their results. Recall that selected profile belongs to Ege (See figure-2), thus his statistic are displayed.

3. Summary & Conclusions

EscApe interacts with user by making use of three menus: main menu, single player game menu and multiplayer game menu. Main menu consists of five buttons, **SINGLE PLAYER** and **MULTIPLAYER** buttons directs user to other two sub-menus; rest of the buttons is to arrange settings, set up new profile or choose among existing ones and quitting game. In single player menu, players can play the game through selected profile, and score information is recorded to selected profile. The game is played via **UP-ARROW**, **DOWN-ARROW**, **Q**, **W** and **E** buttons (See figure-4). Players can also purchase power-ups and upgrade them from the shop; thereby creating more customized game. Multiplayer game menu holds the stats of selected profile, and it includes **CREATE SERVER** and **JOIN SERVER** buttons. By the former a player can create a server such that others who share the same LAN with this player can view the server and join it by using the latter one. Players can only use **UP-ARROW** and **DOWN-ARROW** buttons, in this mode.

The advantages of such a UI design are being user-friendly and being easy to use for all types of users. The scores, count of power ups, and the coin collected are displayed on the right up the screen, so they won't restrict the player at any point of the game. The gameplay background is same with the background of the menus so that the UI becomes more aesthetic and appealing. All buttons are designed with soft-corners and transparent background because such a design is widely preferred and provide a more beautiful menu view. Furthermore, because all buttons' functions are expressed on them, it is easy to understand what they do and easy to use.

The multiplayer game view is based on a x-axis symmetrical reflection for the rival of the player. The main reason for such a view instead of a ghost based view is because the players will have the same speed and share the same x coordinates at any time, the ghost would be invisible unless the one of the avatar jumps. So that for most of the time, the ghost view would have no functionality; therefore, it is decided that a x-axis based reflection view would be more useful and functional; it also does not lead complications for the players.

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