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BSCS -IV

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Project Title: JailBreak

Abstract

JailBreak is an android mobile game. The goal of the game is to help the a prisoner in the jail to escape by avoiding mazes of electrified wires. Our application makes use of accelerometer and gyroscope input sensors for the controls of the game.

1. The Charter

1.1 Vision:

We wish to be one of the top games on Google Play Store that gives a fun and challenging experience to its players.

1.2 Mission:

To provide the users a fun, challenging and addicting game on Android Mobile devices and also provide updates for newer powerups of the game.

1.3 Objectives:

* By the 1st week of January, we will be finished learning about the tools to be used for the game.
* By the 2nd week of January, tools set-up would be done.
* By the 3rd week of January, there will be a User Interface design for the game and it’s finished.
* By the 1st week of February, graphics design for gameplay is done.
* By the 3rd week of February, input sensors (accelerometer and gyroscope) are integrated to the application.
* By the 1st week of March, the Facebook login and sharing function is done. Also the game mechanics for scoring is done.
* By the 2nd week of March, the game is finalized.

1. Feature List and Feature Acceptance

* Play Game

Player will play the game and will be redirected to Choose Level.

* Pause game

Pause gameplay

* Resume game

Resume paused game

* Options

Settings of the game are shown and the player can change settings(sensitivity,

sound volume).

* Help

Instructions for the game is shown.

* Back to main menu

Return to the main menu.

* Quit Game

Quit playing game and return to the main menu.

* Facebook Login/Logout

Player logins to his/her Facebook account and also can logout.

* Post Score to Facebook

Post player’s score for the level of the game in his/her Facebook.

* Controls using input sensors (accelerometer and gyroscope)

Gyroscope and accelerometer are used alongside tap for controls in the game.

1. Roles

Player - plays the game.

1. Role Attributes

Player

Frequency of Use – Medium

Domain Expertise – Low

Mobile Expertise – Low

General Goals – Enjoyment of User

1. Persona

* Player

Andoy is a teenager who likes playing game on his Android mobile phone. He downloads and installs the game JailBreak from the Google Play store. He expects Jailbreak will be a good and fun game. He opens the app and taps the Play button. Soon, he reached quite a distance and became addicted to the game. He posts his scores on his Facebook account and shares to his friends that Jailbreak is a very enjoyable and challenging game.

1. User Stories and Story Acceptance Criteria

* As a player, I want to play the game so I can have fun.
* As a player, I want to change the settings of the game according to what I desire so I can have a better gaming experience.
* As a player, I want to know and read the instructions of the game so I can play the game as it should be played.
* As a player, I want to pause the game so I can take a little break.
* As a player, I want to resume the paused game so I can continue the game.
* As a player, I want to quit the game so I can close the game and rest.
* As a player, I want to login using my Facebook account so I can share my score.
* As a player, I want to logout my Facebook account so I can avoid sharing my scores.
* As a player, I want to share my score on Facebook so I can compete with friends.

1. Use Case Scenario

7.1 Name: Play Game

Description: Player plays the game.

Actor: Player

Pre-condition: Player is in the main menu.

Post-condition: Player is playing the game.

Main Course:

1. Player taps the Play Game button.
2. Use case exits.

7.2 Name: Settings

Description: Player views and changes the settings of the game.

Actor: Player

Pre-condition: Player is in the main menu.

Post-condition: The settings of the game is shown and changes are saved.

Main Course:

1. Player taps the Settings button.
2. Player adjusts the sensitivity.

Alternative:

Player changes the sound volume.

1. Use case exits.

7.3 Name: Help

Description: Shows the instructions of the game.

Actor: Player

Pre-condition: Player is in the main menu.

Post-condition:Instructions of the game is shown,

Main Course:

1. Player taps the Help button.
2. Use case exits.

7.4 Name: Pause Game

Description: Pause the gameplay.

Actor: Player

Pre-condition: Player is playing the game..

Post-condition: The game is paused and player is shown Resume Game

button.

Main Course:

1. Player taps Pause Game button.
2. Use case exits.

7.5 Name: Resume Game

Description: Resume the paused game

Actor: Player

Pre-condition: Game is paused.

Post-condition: Player is back playing the game.

Main Course:

1. Player taps the Resume Game button
2. Use case exits..

7.6 Name: Back to Main Menu

Description: Player get backs to the main menu.

Actor: Player

Pre-condition: Player is in the settings or help options.

Post-condition: Player is back in the main menu.

Main Course:

1. Player taps the Back to Main Menu button.
2. Use case exits.

7.7 Name: Quit Game

Description: Player quits the game.

Actor: Player

Pre-condition: Player is playing the game.

Post-condition: Player quits and is back to the main menu.

Main Course:

1. Player taps the Quit Game button.
2. Use case exits.

7.8 Name: Facebook Log in

Description: Player logs in to his/her Facebook account.

Actor: Player

Pre-condition: Player has default account.

Post-condition: Player can share is score.

Main Course:

1. The player inputs his/her Facebook username or email and password.

Exceptions:

1a. The player inputs an invalid Facebook credentials.

i. The error message “Invalid email/username or password. Cannot connect to Facebook” appears.

ii. Repeat step 1.

1. Use case exits.

7.9 Name: Facebook Log out

Description: Player logs out to his/her Facebook account.

Actor: Player

Pre-condition: Player has log in to his/her Facebook account.

Post-condition: Player logs out to his/her Facebook account.

Main Course:

1. The player taps the Logout button.
2. Use case exits.

7.10 Name: Post score to Facebook

Description: Player posts score to his/her Facebook account.

Actor: Player

Pre-condition: Player has log in to his/her account.

Post-condition: Player shares his/her score.

Main Course:

1. The player taps Share in his/her Facebook.
2. Use case exits.

7.11 Name: Accelerometer and Gyroscope for Controls

Description: Player controls the game using Accelerometer and Gyroscope.

Actor: Player

Pre-condition: Player chooses to play game in the main menu.

Post-condition: Player is playing the game and avoiding the electrified wires.

Main Course:

1. The player tilts and flicks forward his/her phone.
2. Use case exits.
3. Test Cases

8.1 Open game application

Given (Setup)

Player has downloaded and installed the game. (Initial state)

When (Trigger)

Player taps JailBreak application icon.

Then (Verify)

The game is opened and loads.

8.2 Play game

Given (Setup)

Player has opened the game. (Initial state)

When (Trigger)

Player taps “Play” button.

Then (Verify)

The application starts a new game.

8.3 Move character to the right

Given (Setup)

Player started a game. (Initial state)

When (Trigger)

Player tilts the device to the right.

Then (Verify)

Game character moves to the right.

8.4 Move character to the left

Given (Setup)

Player started a game. (Initial state)

When (Trigger)

Player tilts the device to the left.

Then (Verify)

Game character moves to the left

8.5 Use powerup

Given (Setup)

Player started a game. (Initial state)

When (Trigger)

Player flicks the device forward.

Then (Verify)

Powerup is activated.

8.6 Quit game

Given (Setup)

Player started a game and paused it. (Initial state)

When (Trigger)

Player taps the “Quit” button.

Then (Verify)

Game goes back to main menu

8.7 Options

Given (Setup)

Player is in main menu. (Initial state)

When (Trigger)

Player taps the “Options” button.

Then (Verify)

Options page is showed.

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8.8 Change sensitivity

Given (Setup)

Player is in options menu. (Initial state)

When (Trigger)

Player adjusts the sensitivity by using the slider.

Then (Verify)

Sensitivity setting is changed and saved.

8.9 Change sound volume

Given (Setup)

Player is in options menu. (Initial state)

When (Trigger)

Player adjusts the sound volume by using the slider.

Then (Verify)

Sound setting is changed and saved.

8.10 Log In to Facebook

Given (Setup)

Player is in main menu. (Initial state)

Facebook account not connected. (Initial state)

When (Trigger)

Player taps the “Login to Facebook” button.

Then (Verify)

Facebook account is connected to game.

8.11 Log Out of Facebook

Given (Setup)

Player is in main menu. (Initial state)

Facebook account connected. (Initial state)

When (Trigger)

Player taps the “Logout to Facebook” button.

Then (Verify)

Facebook account is disconnected from game.

8.12 Post score on Facebook

Given (Setup)

Game is over. (Initial state)

Facebook account connected. (Initial state)

When (Trigger)

Player taps the “Post score on Facebook” button.

Then (Verify)

Facebook account is disconnected from game.