COMP 3609 – Game Programming

2022/2023 Semester 2

Assignment 2

Date Due: *Sunday March 12, 2023 @ 11:55 pm*

Description

Design and implement a game with the following features:

(1)   It uses graphics files (e.g., jpg, png, gif) and double buffering for the background and most of the game entities. You *may* use the Java 2D API for drawing some of the game entities.

(2)   It uses graphics files and optionally, the Java 2D API, to display scoring information on the screen as the game progresses (using a JPanel). This information could be time remaining, points gained, lives remaining, lives lost, etc.

(3)   It should have two or more animations, at least one of which plays a role in the game (i.e., it has a specific purpose in the game play).

(4)   It should have two or more special effects, at least one of which plays a role in the game (i.e., it has a specific purpose in the game play).

(5)   It should make good use of at least five sound clips during the game.

(6)   It should have a more advanced game play than that of Assignment 1.

Additionally, you must do the following:

- Include a 2-Page PDF document where the first page describes the game play and how to score points and the second page identifies your sources of images and sound clips.

- Produce a video showing the game play. You should store the video on the cloud and provide a link to the video in the PDF document.

Programming Guidelines

(1)   You can reuse the game concept that you created for Assignment 1. However, the game play must be enhanced to incorporate the additional requirements of Assignment 2.

(2)   You should use the code in *BatAlienGame-ImageEffects-Animation* as a starting point. You can add or modify classes as you wish.

Mark Scheme

Marks will be awarded for this assignment as follows:

Meets Specified Requirements (45 marks)
- Requirement #1   [15 marks]
- Requirement #2   [5 marks]
- Requirement #3   [5 marks]
- Requirement #4   [5 marks]
- Requirement #5   [5 marks]
- Requirement #6   [10 marks]

Contains Expected Features (20 marks)
- Handling user input (keyboard and/or mouse)   [5 marks]
- Handling screen boundaries   [5 marks]
- Collision detection   [10 marks]

2-Page PDF document (5 marks)
- 1 page describing the game   [3 marks]
- 1 page identifying sources of images and sound clips   [2 marks]

Video showing game play (10 marks)   [10 marks]

Game Runs Correctly (20 marks)   [20 marks]

Total: **[100 marks]**