ASSIGNMENT 1

**Module :** Game Integration and Testing **Code :** GD5103FP

**Assignment:** Perform Program Integration

**Duration :** 3 hours

**Objective**: To perform program integration

**Tools, Equipment and Materials:**

* PC
* Game Engine e.g. Unity

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**Instructions**

1. Create a folder and rename it as **IndexNumber\_YourName\_PT01**
2. You are not allowed to browse the internet during the test
3. Analyse the project requirements and perform program integration according to the requirements in Appendix A
4. Make sure the integrated programs can work according to the requirements
5. Zip and submit **IndexNumber\_YourName\_PT01** folder as per instructions. Your submitted folder should contain the following:
   1. Unity project file after integration
   2. EXE version of the game

**Appendix A – Program integration**

**Game design document for the project (simplified version)**

1. Test the given Unity project based on the following features:
2. The given Unity project is a simple number guessing game
3. There are three scenes in this project, which are GamePlay, GameWin and GameOver
4. User needs to guess a number between 1 and 9
5. When the user guesses a correct number, he/she will be routed to GameWin scene
6. When the user guesses a wrong number, he/she will be routed to GameOver scene

**Integrate audio and sound effects**

1. Import the audio files to the unity project
2. Implement the following features into the game:
3. Integrate the background music to the game
4. Integrate the relevant sound effects for GameWin and GameOver conditions
5. Build the EXE version for the game

**Appendix B – Additional tasks (enhancement)**

* Make a copy of the following:

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| --- | --- | --- |
| **Sno.** | **Scenes/Script** | **Rename it as** |
| 1 | GameScene | GameScene\_enhanced |
| 2 | GameController | GameController\_enhanced |
| 3 | GameOver | GameOver\_enhanced |
| 4 | RestartButtonScript | RestartButtonScript\_enhanced |
| 5 | GameWin | GameWin\_enhanced |

* Update the relevant codes for integrating the following features:
  + Restrict the number of attempts for user guesses to 3. If the number of user attempts is more than 3, than the player will be led to the GameOver scene
  + Provide a hint to the player such as “Your guessed number is too low than the system generated number” or “Your guessed number is too high than the system generated number”
* Update the UI element with the following:
  + Input field should accept only integer values
  + Limit the number of characters that can be keyed in to 1
* Enhance the look and feel of GameScene\_enhanced..

(Note: The target users are young children below the age of 12)

* Build the exe version of the game

**Submission:**

1. Create a new folder and rename as IndexNumber\_YourName\_PT01\_enhancement
2. Close the unity project and save it inside the folder created
3. Copy the exe version of the game to the folder created
4. Compress the folder and upload as per instructions provided by your Lecturer