



COMSATS University Islamabad, Abbottabad Campus
Department of Computer Science
Assignment 1

Class:	BSE-7A / 7B	Submission Date:	23 Oct, 2024
Subject:	Game Development	Instructor:	M. Ibtisam Gull
Marks:	25		

Assignment Title: Obstacle Course Enhancement

Objective:

Enhance the existing Obstacle Course 3D game in Unity by implementing new features such as pickups, speed boosts, speed normalization, and a hit counter display.

Tasks:

1. Complete the Lecture Slides and the Lab Assignment 1.
2. Pickup Implementation:
 - a. Create pickup objects to be scattered throughout the game arena.
 - b. Implement a script to detect player collision with pickups.
 - c. Upon collision, boost the player's speed.
 - i. Destroy the pickup.
 - d. Implement a way to revert the player's speed back to normal after a certain duration or trigger.
3. Speed Reduction:
 - e. Develop a mechanism to decrease the player's speed when the player collides with the wall, spinner, or a dropper.
 - f. Implement a way to revert the player's speed back to normal after a certain duration or trigger.
4. Score Text Display:
 - g. Create a child GameObject of the player character (Boxy) to display the Score count text.
 - h. Utilize TextMeshPro to render the score count.
 - i. Ensure the text floats above the player's head and updates dynamically with the current score count.

Hints:

- Utilize Trigger Collider components attached to pickup objects to detect player collision.
- Implement the Destroy() method to remove pickup objects upon player collision.
- Utilize TextMeshPro to render text elements efficiently in the game.
- Ensure to reset the player's speed to its default value after a certain period or event.
- Maintain a score count variable.

Submission Guide:

- This is a group activity, therefore only group leader will submit on CUOnline.
 - Create a document with screenshots of game demo along with all the modified scripts.
- There will be a Demo & Code presentation in Lab by all members of Group.