

Description

In this exercise, a cube will be controlled via the keyboard and interact with other objects. Additionally, the goal is to work with Rigidbodies to understand physical effects in Unity.

Tasks

1. Basic Movement of a Cube:

- Create a new Unity scene and add a cube GameObject.
- Implement a script that allows the cube to be controlled using the arrow keys or WASD (Documentation about that with example).
- Use either the Transform function or Rigidbody functions such as AddForce or velocity.
- Test the movement and ensure it is responsive and smooth.

2. Interaction with Rigidbodies:

- Create multiple objects with a Rigidbody Component in the scene (e.g., spheres or blocks) to do this, click on the Object and then in the inspector on the right click 'add component'.
- Add a Rigidbody component to the cube with the movement script so that the cube can collide with these objects and push them.
- Experiment with different masses and physics properties of the objects (by changing values in the Rigidbody component of the other objects).
- Observe how the collisions behave and how different settings impact the physical interactions.

3. Advanced Challenges (Optional):

- Implement a jump function for the cube (hint: addforce Vector.up).
- Add functionality that is triggered upon collision with a Rigidbody (On collision enter / On trigger enter).

Most importantly: Have fun implementing and experimenting!