* Simulate gravity that affects all objects in the scene and the ability to toggle gravity on and off
* Optimize object collision detection with broad phase collisions to avoid unnecessary computations.
* Understand that, in a computer simulation, rigid bodies can interpenetrate during a collision and that this interpenetration must be resolved.
* Learn and use the Separating Axis Theorem (SAT) to detect rigid body collisions.
* Compute the necessary information to support efficient. In the next chapter, you will learn about effective resolution of rigid body interpenetration using this computed information.
* Detect collisions between rigid rectangles and circles accurately.
* Understand how to approximate integrals with Euler Method and Symplectic Euler Integration
* Approximate Newtonian motion formulation with Symplectic Euler Integration
* Resolve interpenetrating collisions based on a numerically stable relaxation method