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### **Assignment - 4**

#### **Collision and Physics Component**

- Created a Physics Manager to store bounding box for every mesh.
- Every soldier has been enveloped with a sphere bounding box and is added in the Physics Manager. Other objects have Axis-Aligned Bounding Boxes or AABB.
- Whenever the soldier moves, the Physics Manager does a collision check in which it finds out whether some other object's bounding box is within the radius of the sphere containing the soldier. If a collision is detected, the soldier slides along the object with which he collided.
- After that, in case no collision happened, it would look whether a soldier is above a plane or not. In case not, the soldier would go down gradually by decrements of his y-coordinate.