Test plans

Unit and integration tests

Moving Entity:
- Zombie
    - Check random movement
    - Check same movement constraint as player
    - Check movement under effect of potion
- Spider
    - Check clockwise movement in normal circumstance
    - Check anticlockwise movement when hit a boulder
    - Check movement under effect of potion
- Mercenary
    - Check follow player
    - Bribe
    - Check movement after bribed
    - Check movement under effect of potion
    - Check same movement constraint as player
- Player
    - Check player movement by just give the position and dungeon information
    - Check the behaviour of player move in to different static entities
    - Check if player start a battle if move in to a moving entity(i.e. enemy)
    - Check if the player return the correct Dungeon response.

Item:
- Collectable
    - Check EntityResponse
    - Check collection
- InventoryItem
    - Check ItemResponse
- InventoryItem > Sword

- Check end of duration
- InventoryItem > Bomb
    - Check using (explode)
    - Check using (place without explode)

Static Entity:
- PlacedBomb
    - Check EntityResponse
- Boulder
    - Check EntityResponse
    - Check the position of boulder
    - Check if boulder moved when player push
    - Check if boulder moved when player push and there is another boulder in the way.
- Door
    - Check EntityResponse
    - Check the position of door
    - Check if door can be opened with a correct key
    - Check if door can not be opened with a wrong key.
- Exit
    - Check EntityResponse
    - Check the position of exit
- FloorSwitch
    - Check EntityResponse
    - Check the position of FloorSwitch
    - Check floorSwitch turned on when boulder's on it.
    - Check floorSwitch turned off when boulder's not on it.
- Portal
    - Check EntityResponse
    - Check the position of Portal
    - Check the player can teleport to the portal.
    - Check the player can't teleport to the portal if portal is surrounded by walls.
- Exit
    - Check EntityResponse
    - Check the position of Wall
- Zombie spawner

- Check EntityResponse
- Check the position of spawner
- Check if zombie can be spawned in the given tick
- Check if zombie can not be spawned when it's surrounded by walls.

Goals:

    basicGoal:
- enemyGoal
    - Check if the goal achieved(removed from the goal string) if all spawners are destroyed and has killed certain number of enemies.
- BoulderGoal
    - Check if the goal achieved(removed from the goal string) if all boulders are on the floorswitches.
- treasureGoal
    - Check if the goal achieved(removed from the goal string) if the player has picked up a certain amount of treasure.
- ExitGoal
    - Check if the goal achieved(removed from the goal string) if player got to the exit.

    ComplexGoal:
- andGoal
    - Check if the goal achieved(removed from the goal string) if both the subgoals are achieved
- orGoal
    - Check if the goal achieved(removed from the goal string) if one of the subgoals is achieved.

System tests
- Player walk, mercenary approach, player collect invincible potion, player consume the potion, mercenary run away from player.
- Player walk, mercenary approach, player collect invisible potion, player consume the potion, mercenary walk randomly

- Player walk, mercenary approach, player collect invisible potion, player consume the potion, no battle occur when there is a collision between them.