

Testing plan for COMP2511 Project Brownie

1. Player movement (10 marks)

- ☒ ~~basic movement: testMovementUp/Down/Left/Right()~~
- ☒ ~~test player movement blocked by walls—use maze dungeon~~
- ☒ ~~test player movement blocked by doors—use two doors dungeon~~
- ☒ ~~test player move through single portal teleports successfully~~
- ☒ ~~test player move through multiple portals in chained reaction successfully~~
- ☒ ~~test player blocked by two boulders~~
- ☒ ~~test player blocked by boulder & wall—> like player | boulder | wall~~
- ☒ ~~test player cannot move with one boulder and one locked door in a line~~

2. Interface methods (success and exception conditions) (10 marks)

- ☒ ~~newGame dungeonName is not a dungeon that exists~~
- ☒ ~~newGame configName is not a configuration that exists~~
- ☒ ~~player destroy spawner exceptions~~
- ☒ ~~player bribe mercenary exceptions~~
- ☒ ~~build exceptions~~
- ☒ ~~build shield~~
- ☒ ~~build bow~~
- ☒ ~~build both shield and bow~~

3. Boulders (10 marks)

- ☒ ~~player can push single boulder~~
- ☒ ~~player cannot two boulders in a line~~
- ☒ ~~boulder on switch activates switch~~

4. Doors & Keys (20 marks)

- ☒ ~~player can pick up a key~~
- ☒ ~~player cannot pick up other key with one key already in inventory~~
- ☒ ~~player can open door with corresponding key~~
- ☒ ~~player can pass through open doors~~

5. Buildables (10 marks)

- ☒ ~~build shield~~
- ☒ ~~build bow~~
- ☒ ~~build both~~

6. Potions (20 marks)

- ☒ ~~test entity response for potions created correctly~~
- ☒ ~~test player can pick up an invincibility potion~~
- ☒ ~~test player can pick up two potions to the inventory~~
- ☒ ~~test player can consume the potion the next tick after collect to inventory~~
- ☒ ~~test player can consume the potion at any tick~~
- ☒ ~~test player can consume multiple potions with effect queuing~~

7. Portals (20 marks)

- ☒ ~~player can teleport through portal~~
- ☒ ~~player can telepor through chained portal~~

- ☒ ~~player cannot teleport due to movement constraint e.g. wall blocking other side of the portal~~

8. Bombs (20 marks)

- ☒ ~~one bomb explode~~
- ☒ ~~bomb do not explode if switch not triggered or not cardinally adjacent~~
- ☒ ~~two bombs explode by one triggered switch~~

9. Spiders (20 marks)

- ☒ ~~test spider move clockwise follow box tile~~
- ☒ ~~test spider traverse through walls, doors, switches, portals, exits~~
- ☒ ~~test spider reverse direction when encounter a boulder~~
- ☒ ~~test two boulders on spider's moving tile and spider change direction successfully~~
- ☒ ~~test if a spider is stuck between two boulders in its movement path, remain still~~
- ☒ ~~test if spider first move is boulder, stay still (until boulder removed)~~
- ☒ ~~test spider spawn at rate 1~~
- ☒ ~~test spider spawn at rate 2~~
- ☒ ~~test spider spawn at rate 10~~
- ☒ ~~test movement of spiders unaffected when player drinks invincibility potion~~

10. Zombies (15 marks)

- ☒ ~~test random spawn cardinally adjacent to the spawner~~
- ☒ ~~test spawn zombies at any random rate~~
- ☒ ~~test zombies movement constraints — blocked by walls~~
- ☒ ~~test zombies movement constraints — blocked by locked doors~~
- ☒ ~~test zombies not blocked by boulders and not push boulder (assumption)~~
- ☒ ~~test portals have no effect on zombies~~
- ☒ ~~test all the cardinally adjacent cells to spawner are walls not spawn any zombies~~
- ☒ ~~test zombie run away when player is invincible~~

11. Battles (40 marks)

- ☒ ~~default state~~
- ☒ ~~simple battle with one enemy (default state)~~
- ☒ ~~multiple battles with multiple enemies~~
- ☒ ~~test player dies correct behavior~~
- ☒ ~~test enemies die correct behavior~~
- ☐ invincible state
- ☐ invisible state
- ☐ weapon bonus in battle
- ☐ shield multiplication effect in battle
- ☐ ally attack and health in battle
- ☐ different bonus together

12. Mercenaries (20 marks)

- ☒ ~~test mercenary in vicious state move towards player~~
- ☒ ~~test mercenary limited by the same movement constraints as the Player~~
- ☒ ~~test mercenary bypass walls to reach player (move around walls)~~
- ☒ ~~test mercenary run away from the Player when player is invincible~~

- ☒ ~~test mercenary (whether bribed or not) spawn randomly when player is invisible~~
- ☒ ~~test mercenary not within bribe radius throw InvalidActionException~~
- ☒ ~~test not enough treasure to bribe throw InvalidActionException~~
- ☒ ~~test bribed mercenary follow player when become ally~~
- ☒ ~~test ally do not run away (still follow player) when player is invincible~~

13. Basic Goals (20 marks)

- ☒ ~~test collect treasure goal~~
- ☒ ~~test destroy enemy goal~~
- ☒ ~~test trigger switches goal~~
- ☒ ~~test find exit goal~~

14. Complex Goals (25 marks)

- ☒ ~~compound goals AND~~
- ☒ ~~compound goals OR~~
- ☒ ~~compound goals AND OR~~