**Functional:**

Meta/Joining:

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Scenario** | **Expected Outcome** | **Result** |
| M-01 | Player joins a game | Player starts with a single life |  |
| M-02 | Server starts a new game | Boxes, walls, paths, power-ups, and a single exit door is generated |  |
| M-03 | Game is initialized | A random number of enemies are placed on the map |  |
| M-04 | A player connects to the server | Player is shown the game map and is allowed to input controls for his player piece |  |
| M-05 | Player is the very first player to join | Game is initialized |  |
| M-06 | Player is not the first to join | Player joins in on a on-going match |  |
| M-07 | A player attempts to join the game after another player has already joined | The player is allowed to join |  |
| M-08 | Game has ended | Result is displayed to all players |  |
| M-09 | A door has been placed | Door is not initially visible to all players |  |

Interaction:

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Scenario** | **Expected Outcome** | **Result** |
| I-01 | Players touches door after all enemies have died | The player is declared the winner and the game ends |  |
| I-02 | Player steps on door when 1 or more enemy/enemy player is alive | Nothing occurs |  |
| I-03 | Player touches an enemy player | Both touching players lose a life |  |
| I-04 | Player touches an enemy | The player loses a life |  |
| I-05 | Player is within range of an exploding bomb (unless flamepass powerup) | The player loses a life |  |
| I-06 | A player picks up a power-up | Player is given a power associated with that power-up |  |

Commands:

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Scenario** | **Expected Outcome** | **Result** |
| C-01 | A bomb has been placed (unless detonator powerup) | Bomb counter is decreased by 1, and the bomb explodes after 2 seconds |  |
| C-02 | Player has placed a bomb and has no bombs left in the bomb counter and attemps to deploy another bomb | The player cannot deploy another bomb |  |

Movement:

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Scenario** | **Expected Outcome** | **Result** |
| MV-01 | A player presses a direction on the keyboard | The player is moved one spot in that direction unless it is blocked by a wall/box. If there is a door on that spot, it is revealed to all players. |  |
| MV-02 | Player collects speed power-up | A players speed is increased by 1 |  |

Explosions:

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Scenario** | **Expected Outcome** | **Result** |
| E-01 | A box is within range of an explosion | The box is destroyed and if the door is below, it is revealed to all players |  |
| E-02 | A bomb has exploded | The player associated with the bomb has his bomb counter for bombs he is allowed to place increased by 1 |  |
| E-03 | A bomb has exploded | Boxes surrounding the bomb within range of the players explosion range are destroyed. (Excluding diagonals) |  |

Life:

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Scenario** | **Expected Outcome** | **Result** |
| L-01 | Player loses a life and has only a single life | Player can no longer play |  |
| L-02 | Player loses a life and 2 or more lives | ??? |  |

**Concurrency:**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Scenario** | **Expected Outcome** | **Result** |
|  |  |  |  |

Observations for scalability?

Game allows multiple players to join

Bombs, range, etc