# **Epic Stories**

- 1. As a player, I want to be able to move in the field, so that I can interact with the puzzle while bounded to the available paths.
- 2. As a player, I want to be able to collect and pick up objects, so that I can have more abilities in the game and gain pleasure.
- 3. As a player, I want to be able to use special objects and have also the chance to be killed (in doing so), so that I can have more challenge in the game and gain fun.
- 4. As a player, I want to be able to achieve subgoals, so that I can ultimately achieve the overall goal and eventually win the game.

## **User Stories**

Note: each story point is equivalent to 0.5 hours.

1. move and push

| ID   | US1.1                     |
|------|---------------------------|
| Name | Player moves in the field |

## **User-Story Description:**

As a player, I want to be able to move in the field, so that I can interact with the field.

- If an arrow key is pressed, but the intended move of the player is blocked by a wall, the move should be rejected. No change should be displayed.
- If an arrow key is pressed, but the corresponding square is out of the boundary, the move should be rejected. No change should be displayed.
- If an arrow key is pressed and the corresponding square is available, the player should move one square with the input direction.

| Estimate for the implementation | 4 user story points |
|---------------------------------|---------------------|
| Priority for the implementation | 5                   |

| ID   | US1.2                             |
|------|-----------------------------------|
| Name | Player push a boulder on a switch |

As a player, I want to be able to move boulders, so that I can rearrange the locations of the boulders.

#### Acceptance Criteria:

- If the intended move of the player is blocked by a boulder and the displacement of the boulder will be blocked by a wall, an enemy or another boulder, the intended move will be rejected and no change should be displayed.
- If the intended move of the player is blocked by a boulder, and the displacement of the boulder will not be blocked by a wall, an enemy nor another boulder, the player and the boulder should both move one square with the input direction.
- If the square boulder is moving into, has a switch, the number of switches toggled-on should increase by 1.
- If the boulder is moved out of square contain switch, the number of switches toggled-on should decrease by 1.
- The number of switches toggled-on against total number of switches should be displayed at the top right corner all the times.

| Estimate for the implementation | 6 user story points |
|---------------------------------|---------------------|
| Priority for the implementation | 3                   |

## 2. collect, pick up objects

| ID   | US2.1                    |
|------|--------------------------|
| Name | Player collects treasure |

**User-Story Description:** 

As a player, I want to be able to collect treasures, so that I can store them.

- If the player moves into a square containing a treasure and the spacebar is pressed, the treasure should be picked up by the player.
- If the player moves into a square containing a treasure and the spacebar is not pressed, the treasure should not be picked up by the player.
- Treasure image disappear after success collect.
- After successful collection, the treasure disappears and the number of treasure collected should be increased by 1.
- The number of treasure collected against total number of treasure should be displayed at the top right corner all the times.

| Estimate for the implementation | 5 user story points |
|---------------------------------|---------------------|
| Priority for the implementation | 3                   |

| ID   | US2.2                         |
|------|-------------------------------|
| Name | Player collects an unlit bomb |

As a player, I want to be able to collect bombs, so that I can store them for later use.

#### Acceptance Criteria:

- If the player moves into a square containing an unlit bomb, the bomb should be collected by the player automatically.
- After successful collection, the unlit bomb should disappear and the number shown of unlit bombs collected increases by 1.
- The number of unlit bomb collected should be displayed at the top right corner all the times.

| Estimate for the implementation | 5 user story points |
|---------------------------------|---------------------|
| Priority for the implementation | 2                   |

| Name Player pickes up a key | ID   | US2.3                  |
|-----------------------------|------|------------------------|
|                             | Name | Player pickes up a key |

#### **User-Story Description:**

As a player, I want to be able to collect keys, so that I can store them for later use.

- If the player has no key, moves into a square containing a key and the spacebar is pressed, the key will be picked up by the player.
- If the player has key, moves into a square containing a key and the spacebar is pressed, the key will not be picked up by the player.
- If the player, moves into a square containing a key and the spacebar is not pressed, the key will remain in the square.
- After successful collection, the key should move around with the player.

| Estimate for the implementation | 6 user story points |
|---------------------------------|---------------------|
| Priority for the implementation | 2                   |

| ID   | US2.4                    |
|------|--------------------------|
| Name | Player pickes up a sword |

As a player, I want to be able to pick up swords, so that I can increase my ability in the game.

#### Acceptance Criteria:

- If the player has no sword, moves into a square containing a sword and the spacebar is pressed, the sword should be picked up and shown.
- If the player has a sword, moves into a square containing a sword and the spacebar is pressed, the sword should not be picked up by the player.
- After successful collection, the sword should move around with the player.

| Estimate for the implementation | 7 user story points |
|---------------------------------|---------------------|
| Priority for the implementation | 3                   |

| ID   | US2.5                           |
|------|---------------------------------|
| Name | Player drinks invincible potion |

## **User-Story Description:**

As a player, I want to be able to collect invincibility potions, so that I can increase my ability in the game.

## Acceptance Criteria:

- If the player drank the invincible potion within 10 seconds, moves into a square containing an invincible potion and the spacebar is pressed, the invincible potion should not be drunk by the player.
- If the player did not drank the invincible potion within 10 seconds, moves into a square containing an invincible potion and the spacebar is pressed, the invincible potion should be drunk by the player.
- After successful drinking, the invincible potion should disappear and the player should be wrapped by a protection layer for the next 10 seconds.

| Estimate for the implementation | 7 user story points |
|---------------------------------|---------------------|
| Priority for the implementation | 2                   |

#### 3: Use objects and be killed (in doing so)

| ID   | US3.1             |
|------|-------------------|
| Name | Player drops bomb |

As a player, I want to be able to drop bomb, so that I can kill enemies and clear the paths.

#### Acceptance Criteria:

- If the player has an unlit bomb, moves into a square and the "B" is pressed, the bomb should be dropped.
- After dropping, the bomb should be lighted up immediately and then explode after 4 seconds.
- After dropping, the bomb image changes its look with a shorter and shorter fuse on every second (i.e. 1, 2 and 3 seconds after dropping).
- After dropping, the bomb should explode and change its look to a blaze (i.e. 4 seconds after dropping).
- If enemies and boulders are in the 4 adjacent squares, they should be killed or destroyed when the bomb explodes, then the enemies and boulders involved should disappear.
- If the player is in the adjacent 4 squares, they should be killed or destroyed when the bomb explodes. Then, the game should end and a losing message should be displayed.

| Estimate for the implementation | 9 user story points |
|---------------------------------|---------------------|
| Priority for the implementation | 3                   |

| ID   | US3.2                               |
|------|-------------------------------------|
| Name | Player kills an enemy using a sword |

## **User-Story Description:**

As a player, I want to be able to kill enemies using a sword, so that I can be left with fewer enemies.

- If the player has sword with one or more available hits and moves into a square containing an enemy, the enemy should be killed automatically.
- After successful killing, the enemy should disappear and the number of enemy killed should be increased by 1.
- The number of enemy killed against total number of enemy should be displayed at the top right corner at all times.
- Each sword has 5 hit after pick up, sword disappear when all hit used up.

| Estimate for the implementation | 7 user story point |
|---------------------------------|--------------------|
| Priority for the implementation | 4                  |

| ID   | US3.3  |
|------|--|
| Name | Player kills an enemy using invincibility potion |

As a player, I want to be able to kill enemies after having an invincibility potion, so that I can be left with fewer enemies.

## Acceptance Criteria:

- If the player drank invincible potion in less than 10 seconds ago and moves into a square containing an enemy, the enemy should be killed.
- After successful killing, the enemy should disappear and the number of enemy killed should be increased by 1.
- Number of enemy killed against total number of enemy should be displayed at the top right corner all times.

| Estimate for the implementation | 7 user story points |
|---------------------------------|---------------------|
| Priority for the implementation | 2                   |

| ID   | US3.5                        |
|------|------------------------------|
| Name | Player is killed by an enemy |

## **User-Story Description:**

As a player, I want to have the chance to be killed by an enemy, so that I can have more challenge involved.

- If player is not using potion, all enemies should constantly move toward the player (at 1 square per second).
- If player is using potion, all enemies should constantly move away from the player (at 1 square per second).
- If the player collides (be on the same square) with an enemy without a sword or without using an invincibility potion, the game should end and a losing message should be displayed.

| Estimate for the implementation | 5 user story points |
|---------------------------------|---------------------|
| Priority for the implementation | 4                   |

| ID   | US3.6                 |
|------|-----------------------|
| Name | Player unlocks a door |

As a player, I want to be able to unlock doors with keys, so that it increases the interestingness of the game.

#### Acceptance Criteria:

- If the player moves into a square containing an unlocked door, door should remain unlocked.
- If the player moves into a square containing a locked door and the player does not have a key, the door should remain locked.
- If the player moves into a square containing a locked door and the player have the mismatched key (i.e. the ids do not match), the door should remain locked.
- If the player moves into a square containing an locked door, and the player have the matched key (i.e. the ids match), that door should open(change to open image).
- After successful matching, the key should disappear and the locked door be replaced as unlocked and opened.

| Estimate for the implementation | 10 user story points |
|---------------------------------|----------------------|
| Priority for the implementation | 4                    |

## 4: achieve subgoals and goals to win the game

| ID   | US4.1                    |
|------|--------------------------|
| Name | Player achieves the goal |

#### **User-Story Description:**

As a player, I want to be able to achieve all subgoals required, so that I can win the game.

- After each time the player moves, subgoals of the round are checked and displayed. These subgoals may include and are limited to getting to an exit, destroying all enemies, having a boulder on all floor switches, and collecting all treasure.
- If the player arrives at the exit, and the goal requirements have been fully fulfilled, a winning message should be displayed.
- If the player arrives at the exit, and the goal requirements have not been fully fulfilled, a losing message should be displayed.
- If player is not at the exit, but all goal requirements have been fulfilled, then the game should end and a winning message should be displayed.

| Estimate for the implementation | 8 user story points |
|---------------------------------|---------------------|
| Priority for the implementation | 5                   |