Milestone 1

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Initial Epic Story:

As a player, I want to complete the maze, so that I can win the game.

Detailed User Stories:

ID	US1
Name	Player being able to move

User-Story Description:

As a player, I want to be able to move, so that I can navigate my way through the dungeon.

Acceptance Criteria:

- Player being able to move up, down, left and right using the corresponding arrow keys into the adjacent squares
- Player should not be able to go through entities such as walls, boulders, closed doors, triggered floor switches, unlit/lit bombs or enemies
- Player should be able to walk over treasure, keys, open doors, untriggered floor switches, unlit/lit bombs, swords and invincibility potions.

Estimate	10 Story Points (1 SP = 1 hour)
Priority	1 (high)

ID	US2
Name	Player exit the puzzle

User-Story Description:

As a player, I want to be able to exit the puzzle, so that I can know I have completed the puzzled.

Acceptance Criteria:

• Player will end the game upon walking on top of the exit if the player has completed all the goals. If the player has not completed all the goals, they are given the option to

- continue playing and finish them or exit the game as incomplete.
- When the game has ended a "THE END" message will appear. Then pressing the "delete" key will close the game.
- Player will have the option of exiting the game by pressing the red "x" button in the top right corner of the screen.

Estimate	2 Story Points (1 SP = 1 hour)
Priority	1 (high)

ID	US3
Name	Player being able to collect treasure

As a player, I want to be able to collect treasure, so that I can make the puzzles more challenging/fun for myself.

Acceptance Criteria:

- Player being able to collect the treasure by walking over the treasure. Once walked over, the treasure is considered as collected.
- Treasure entity will disappear once treasure is collected and the treasure counter will increase by 1.
- Treasure counter will be displayed on the top right corner of the screen.

Estimate	4 Story Points (1 SP = 1 hour)
Priority	2 (medium)

ID	US4
Name	Player being able to collect keys

User-Story Description:

As a player, I want to be able to collect keys, so that I can open doors

Acceptance Criteria:

Player should be able to pick up a key by walking over the square which is containing it. When the "shift" key is pressed, the key is picked up. If the player is holding a key, they can press the "shift" key to drop it onto the square which the player is currently on. If the player is holding any other item, they can press "shift" to drop the item that is currently in their hand and pick up the key.

- Player being able to see the name of the key they are currently holding on the top right hand corner of the screen.
- If a key is dropped then the name of the key on the top right hand corner disappears.
- Player being able to walk over the key to collect the key. Upon collection the key
 disappears and a text appears on the top right hand corner of the screen letting them
 know what key they are holding.
- Player only being able to hold one key at a time.
- Key entity can only unlock one particular door entity in the dungeon.
- Once key entity is used on opening a door, the key status on the top right hand corner disappears and the key disappears from the game.
- The key entity cannot disappear from the game unless used on a door.

Estimate	7 Story Points (1 SP = 1 hour)
Priority	1 (high)

ID	US5
Name	Player being able to open doors

As a player, I want to be able to open doors, so that I can progress through the dungeon.

- A closed door will act as a wall.
- An open door will act as an empty square.
- Each door can only be opened using the corresponding key.
- To open the door, the player must stand within 1 square of the door (to the left, right, top or bottom of the door) and press the "space" key on their keyboard. If they have the correct key, the door will open. If they don't have a key, or the incorrect key, an error message will appear. The error message will state which key the player needs to open the door.
- When the door is successfully opened, the door entity will permanently change from closed to open.
- If player does not have the correct key, the door will remain closed.

Estimate	4 Story Points (1 SP = 1 hour)
Priority	1 (high)

ID	US6

Name	Player being able to push boulders
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As a player, I want to be able to push boulders, so that I can move them aside or trigger floor switches to progress through the dungeon.

Acceptance Criteria:

- Player should not be able to push more than one boulder at a time.
- Player should be able to should be able to push the boulder into adjacent squares.
- Player should be able to blow up the boulder using a bomb. When blown up, boulder should disappear.
- Player should only be able to push the boulder 1 square at a time. The boulder does not "roll". If the player pushes the boulder 1 square, the boulder moves 1 square.
- Player can only push the boulder if they are 1 square within the space of the boulder (either left, right, top or bottom of the boulder).

Estimate	8 Story Points (1 SP = 1 hour)
Priority	2 (medium)

ID	US7
Name	Player being able to trigger floor switches

User-Story Description:

As a player, I want to be able to trigger floor switches, so I can walk over them and progress through the dungeon.

- An untriggered floor switch will act as an empty square.
- A floor switch is triggered when the floor switch and a boulder share the same square i.e. when a boulder is on top of the floor switch.
- If a boulder was on a floor switch but then is pushed off, it is untriggered.
- When a floor switch is triggered, it adds a counter on the top right hand corner of the screen to symbolise that you have finished a task. (e.g. Floor Switches Triggered: 3/4)

Estimate	8 Story Points (1 SP = 1 hour)
Priority	2 (medium)

ID	US8
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Name	Player being able to interact with bombs

As a player, I should be able to interact with bombs, so I can use them to my advantage as well as make the dungeon more challenging/fun.

Acceptance Criteria:

- Player should be able to pick up both lit and unlit bombs by walking over the square which is containing it. When the "shift" key is pressed, the bomb is picked up. If the player is holding a bomb, they can press the "shift" key to drop it onto the square which the player is currently on. If the player is holding any other item, they can press "shift" to drop the item that is currently in their hand and pick up the bomb.
- Player is still able to pick up treasure, keys, invincibility and swords by walking over it. They cannot pick up anything else.
- Player cannot use a key to open a door or a sword to attack an enemy while holding a bomb.
- Player can push a boulder while holding a bomb.
- Player can only carry one bomb at a time.
- Player must drop the bomb onto a square and only then, they can lit the bomb.
- Player should be able to light up unlit bombs by pressing the "space" key. A bomb can only be lit when the player is holding it.
- A lit bomb takes 4 seconds to detonate.
- The bomb has an area of damage of 1 square, left, right, above and below the square which holds the bomb. If the player is within the area of damage, the player will instantly die, causing the game to end. Bombs do not damage anything else.
- After a bomb has detonated, the bomb disappears.
- Player can only have one item in their hand. So if they have a bomb, they cannot carry a sword or anything else.

Estimate	8 Story Points (1 SP = 1 hour)
Priority	2 (medium)

ID	US9
Name	Player being able to pick up swords

User-Story Description:

As a player, I want to be able to pick up swords, so that I can use the sword to kill enemies.

Acceptance Criteria:

• Player should be able to pick up a sword by walking over the square which is containing it. When the "shift" key is pressed, the sword is picked up. If the player is

holding a sword, they can press the "shift" key to drop it onto the square which the player is currently on. If the player is holding any other item, they can press "shift" to drop the item that is currently in their hand and pick up the sword.

- Upon collection, a sword is then placed in the players hand.
- A player can only hold one sword at a time.
- A counter of how many hits the sword can take before disappearing is displayed in the bottom left hand corner of the screen. The initial count will always be 5.
- Player can use sword by pressing the "space" key. This will be considered a hit.
- After a hit, the counter will decrease by one.
- When the counter reaches 0, the sword disappears from the game. The counter will also disappear until another sword is collected.
- Player is still able to pick up treasure, keys, invincibility by walking over it. They cannot pick up anything else.
- Player cannot use a key to open a door or lit a bomb while holding a sword.
- Player can still push a boulder while they are holding a sword.
- Player can only have one item in their hand. So if they have a sword, they cannot carry a bomb or anything else.

Estimate	8 Story Points (1 SP = 1 hour)
Priority	2 (medium)

ID	US10
Name	Player being able to kill enemies

User-Story Description:

As a player, I want to be able to kill enemies, so that I can move past them and progress through the dungeon.

- A player can only deal damage to the enemy when they have a sword equipped or while using the invincibility potion.
- Player should be able to attack the enemy when in an adjacent square to the enemy.
- Player should be able to attack the enemy by pressing the "space" key.
- One hit from the player will kill the enemy.
- If player has successfully killed the enemy, the sword will consider it as one hit. Otherwise, no hits will be registered.

Estimate	6 Story Points (1 SP = 1 hour)
Priority	2 (medium)

ID	US11
Name	Player being able to pick up/use invincibility potions

As a player, I want to be able to pick up invincibility potions, so that I can walk past and defeat enemies

Acceptance Criteria:

- Player should be able to pick up the invincibility potion by walking over the square
 which is containing it. When the "shift" key is pressed, the potion is picked up and
 used automatically. If the player is holding any other item, they can press "shift" to
 drop the item that is currently in their hand and pick up the potion.
- Once the player picks up the invincibility potion, the potion is used automatically.
- A timer will appear in the bottom left corner of the screen counting down 10 seconds in which the invincibility potion is active.
- When the invincibility potion is active, the player is invincible to all exploding bombs and enemies.
- When colliding with an enemy with the invincibility potion active, the enemy will die instantly.
- When the invincibility potion is active, enemies will automatically avoid the player by ensuring that the path between the player and enemy is the longest it can possibly be.
- The invincibility potion is deactivated when the timer hits 0 seconds. The timer disappears from the screen and the invincibility potion effects is gone. A message will appear letting the player know the invincibility potion has finished.
- When the invincibility potion effects are gone, enemies will start coming closer to the
 player to kill them. Effects such as invincibility to enemies, instant kills by colliding with
 enemies and invincibility to exploding bombs will be gone.

Estimate	6 Story Points (1 SP = 1 hour)
Priority	3 (low)

ID	US12
Name	Player being able to complete the game

User-Story Description:

As a player, I want to be able to finish the dungeon game, so that I will get the satisfaction of completion.

- Player should be able to complete all objectives to finish the game.
- Each dungeon has different types of goals, such as killing all enemies, having a
 boulder on all floor switches and collecting all the treasure. If the defined goal is not
 completed, the player is not allowed to complete the game until these goals have been
 completed. An error message will show up when they try to go to the exit of the game
 without completing the goals.
- Player should be able to complete all required goals in a logical order.
- Player should be able to run the game on their computer.

Estimate	3 Story Points (1 SP = 1 hour)
Priority	1 (high)