### Other

**Enemy Spawn**

* Enemies spawn at random locations on the edge of the map over time.
* The key “g” spawns an enemy.

### Render

**Map**

* There is a map of grass tiles.
* There are scorched earth titles on the edges of the map.

**UI**

* There is the player's health bar. It decreases when enemies successfully attack the player. If the health is critical, the health bar darkens in colour.
* There is the player’s experience bar. It increases when the player successfully kills an enemy. If the experience bar is close to filling up, the experience bar darkens in colour. If it ever exceeds the maximum level, the experience bar resets to zero.
* There is a pause button and a toolbar, but those are purely cosmetic for the time being.

**Enemy Count**

* The number of enemies alive appears in the console. It updates when enemies spawn or are killed.

**Player**

* The player has:  
   - Idle (Sprite)  
   - Move (Animation)  
   - Attack (Animation)
* The scale and position are correct.

**Player Damage**

* When the player takes damage:  
   - The player sprite flashes red.

**Enemy**

* The enemy has:  
   - Move (Animation)
* The scale and position are correct.

**Enemy Death**

* When an enemy is killed:  
   - The enemy is knocked back while fading out.

**Enemy Damage**

* When an enemy takes damage:  
   - The enemy sprite flashes white.

### Player

**Death**

* When the player’s health reaches 0:  
   - The player is destroyed and game over is triggered.

**Attack**

* Pressing “mouse-left” triggers an attack. The health of all enemies in range is reduced.

**Attack Cooldown**

* The weapon enters cooldown when used.
* The weapon cannot be used while on cooldown.

**Move**

* Single Input  
   - Holding “w” moves the player up based on its speed.  
   - Holding “a” moves the player left based on its speed.  
   - Holding “s” moves the player down based on its speed.  
   - Holding “d” moves the player right based on its speed.
* Multi Input  
   - Holding “w+d” moves the player up-right based on its speed.  
   - Holding “w+a” moves the player up-left based on its speed.  
   - Holding “s+d” moves the player down-right based on its speed.  
   - Holding “s+a” moves the player down-left based on its speed.
* Other  
   - Holding opposite keys (“w+s” or “a+d”) results in no movement.  
   - The player cannot move on scorched earth (map edges).

### Enemy

**Death**

* When the enemy’s health reaches 0:  
   - The enemy is destroyed and player experience is updated.

**Attack**

* When an enemy touches the player it triggers an attack. The health of the player is reduced.

**Attack Cooldown**

* The enemy enters cooldown after attacking.
* The enemy cannot attack while on cooldown.

**Move**

* Enemies move to the player.

### Game Over

**Screen**

* When the player is killed:  
   - The game over screen appears then fades out.  
   - All systems are disabled (including player input).

**Retry**

* In the game over screen:  
   - Press "r" restarts the game. This can be performed even when the game is in progress.

**Score**

* The number of enemies killed appears in the console.

### Audio

**Music**

* There are two tracks of background music. One track is played when there are no enemies present, and another track is played when enemies are present.

**SFX**

* There is SFX during:  
   - Player Move  
   - Player Attack  
   - Enemy Attack  
   - Player Death   
   - Game Over