

Undead Temple

Design Document: Version 2

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1 Story

Undead Temple is a single-player text-based adventure game. The player has been turned into an undead warrior by the necromancer, to be part of the necromancer's army. The player must adventure across the map, defeat enemies, level up, and defeat the necromancer at the bottom of the undead temple, returning back to their original state.

2 User Interface

The player interacts with the game world by entering commands into the console. Every valid command entered is considered one turn, after which the game world is updated and the main UI is redisplayed. Invalid commands do not update the game world, preventing the player from potentially being damaged due to a typo.

2.1 Main Interface

The interface that the player interacts with includes the player's health, location, and a list of commands they can perform at their current location, such as adjacent rooms they can go to, and enemies in the room they can attack. Below is a sample output after entering the command **go west**:

```
health: 6/15
location: crypt level 3
commands:
  character (view character details)
  heal (drink a health potion; 5 remaining)
  attack skeleton (12/12 health)
  go north
  go east
```

You enter the room to the west.

Enter command:

|

2.2 Commands

Commands have a name, and some require an argument. Commands are entered as **command argument**, where **command** is one of **character**, **heal**, **attack**, and **go**, and **argument** is anything following the first space key, which can be multiple words. For example, **go dark forest**: the command name is

go and the argument is **dark forest**.

character

The **character** command has no arguments and displays the player's name, level, damage, hitpoints, and experience. Below is a sample output after entering **character**:

```
health: 6/15
location: crypt level 3
commands:
    character (view character details)
    heal (drink a health potion; 5 remaining)
    attack skeleton (12/12 health)
    go north
    go east
```

```
mike, level 1 undead warrior
    damage: 6
    hitpoints: 15
    experience: 0/250
```

Enter command:

|

heal

The **heal** command has no arguments and will cause the player to consume a health potion (if they have any) which fully replenishes their health. The main UI displays how many health potions the player has in the heal command information.

go

The **go** command requires the display name of an adjacent room as an argument, and causes the player to move to this room. The main UI is redisplayed with information about the new room. For example, **go north**, **go enchanted swamp level 2**.

attack

The **attack** command requires the display name of an enemy in the current room as an argument, and causes the player to attack this enemy. When an enemy is attacked, they become aggressive and will attack you every turn. For example, **attack skeleton1**, **attack dark elf2**.

<empty>

If the player attacks an enemy, then as long as the enemy is alive and the player is in the same room, the player can just press enter to repeatedly attack the enemy, instead of having to enter **attack enemy** repeatedly. Once this enemy

is defeated, the player will need to manually attack another enemy.

3 World Map

The world map is a system of connected rooms, levels, and areas which form the game world that the player can traverse and interact with.

3.1 Room

A room is the base unit of the world map. Rooms have enemies and connect to others rooms, allowing the player to traverse the map by moving between adjacent rooms. Rooms are stored in a 4x4 grid (forming each level), and are identified by their (x, y) coordinates within this grid, as well as by their area name and level number.

3.2 Level

A level stores and manages a 4x4 grid of rooms and their connections, and keeps track of the start room and the end room of the level. Levels are stored as a chain of levels, where one level's end room connects to the start room of the next level (forming each area). Levels may also connect to another area outside of the main path, allowing the world map to branch.

3.3 Area

An area is a named region of the world map, storing and managing a chain of levels. These areas are themselves connected in a chain to form the world map, with optional branch points to other areas.

3.4 Main Path

The player begins in the bottom of the crypt, and must traverse out of the crypt, through the dark forest, over the mountain, across the enchanted swamp, into the undead temple, and defeat the necromancer.

Crypt

The crypt has 3 levels of skeleton enemies: **crypt level 1** connects to **dark forest** (main path), and **crypt level 3** contains the tomb where the player spawns.

Dark Forest

The dark forest has 3 levels of bandit enemies: **dark forest level 1** connects to **crypt**, **dark forest level 2** connects to **bandit hideout**, and **dark forest level 3** connects to **mountain** (main path).

Mountain

The mountain has 3 levels of lizard enemies: **mountain level 1** connects to **dark forest**, **mountain level 2** connects to **lizard cave**, and **mountain level 3** connects to **enchanted swamp** (main path).

Enchanted Swamp

The enchanted swamp has 3 levels of dark elf enemies: **enchanted swamp level 1** connects to **mountain**, **enchanted swamp level 2** connects to **dark elf cave**, and **enchanted swamp level 3** connects to **undead temple** (main path).

Undead Temple

The undead temple has 4 levels of undead enemies. The necromancer is located at the end of **undead temple level 4**.

3.5 Side Areas

Along the way, the player will find some side areas containing enemies that can be defeated for more experience and health potions.

Bandit Hideout

The bandit hideout is a side area in **dark forest**, and has a single level of bandit enemies.

Lizard Cave

The lizard cave is a side area in **mountain** and has a single level of lizard enemies.

Dark Elf Cave

The dark elf cave is a side area in **enchanted swamp** and has a single level of dark elf enemies.

4 Combat

The player may engage in combat with enemies in the game world by attacking them. Once the player attacks an enemy, the enemy becomes aggressive and attacks the player once every turn until either the enemy is defeated, or the player leaves the room.

4.1 Combat Attributes

The following attributes determine a character's capabilities in combat:

- hitpoints: total amount of damage that may be incurred in combat

- health: remaining amount of damage that may be incurred in combat
- damage: maximum damage that may be inflicted per attack

4.2 Combat Mechanics

Every attack, a random number between 0 and the attacker's damage is generated. The character being attacked will then incur this much damage, up to however much health they have left. If a character's health reaches zero, they are considered to be defeated.

4.3 Enemies

Enemies are characters that can engage in combat with the player, giving experience and sometimes health potions when defeated.

4.4 Health Potions

Health potions can be consumed by the player to fully replenish their health, and are randomly obtained by defeating enemies.

4.5 Experience

Defeating enemies awards the player with experience. After gaining a certain amount of experience, the player will level up, increasing their combat attributes.

4.6 Defeat

When the player's health reaches zero, they respawn at their tomb with a few more health potions. All enemies remain in their existing state, whether defeated or damaged. No penalties are incurred, besides the player having to walk all the way back to wherever they were.