



Dead End Dungeon

[Disclaimer! Not all features mentioned below were implemented - we used this document in our planning phase of the project.]

Story

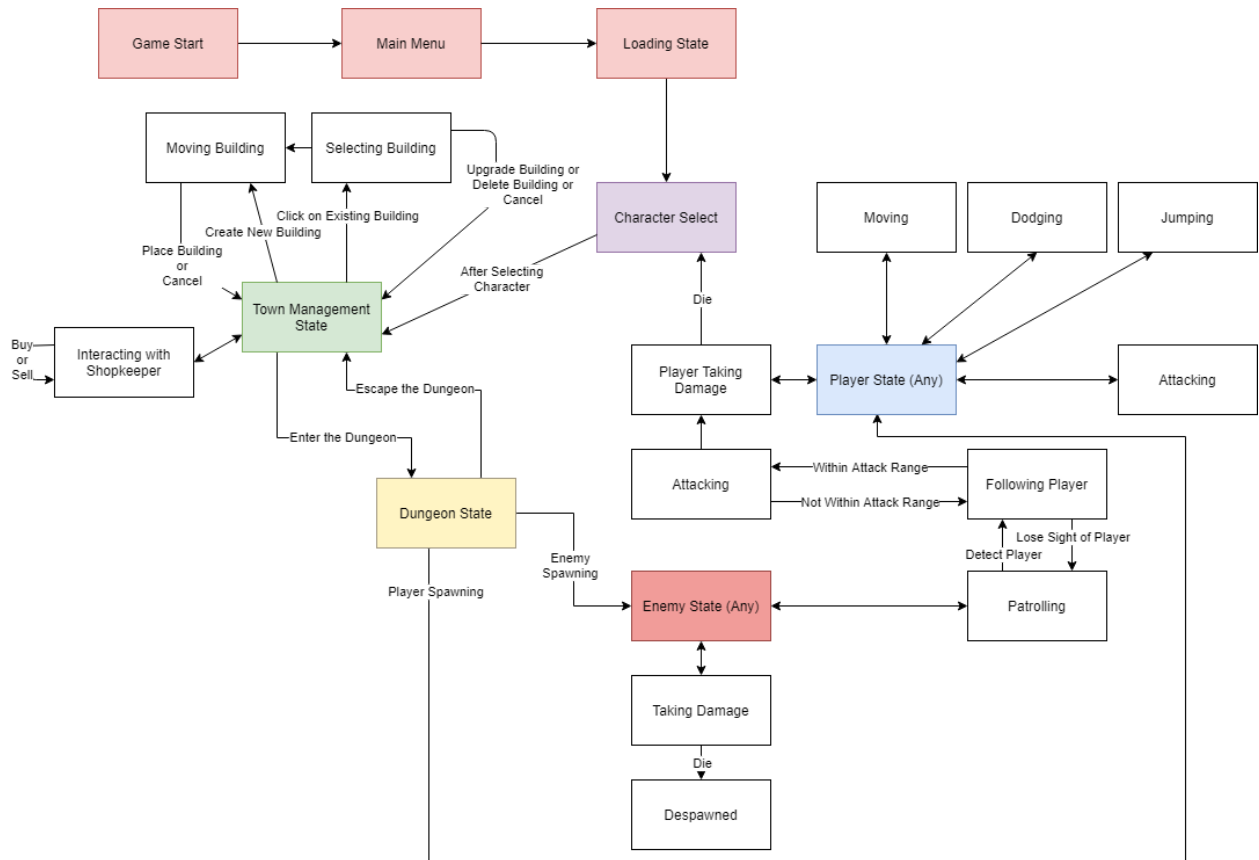
You play as a ghost who aims to defeat the evil contained in the dungeon outside of town. (The town maybe exists near the dungeon to try to guard further towns from being attacked by the dungeon?) To do this, you must possess a body of one of the town members and adventure into the dungeon. It turns out that the dungeon itself actually contains the soul of the last person to try to defeat the evil, and the final boss of the dungeon reflects the stats of the last soul. When the player defeats the final boss, their soul is absorbed and the player's next playthrough will have the final boss's stats reflect their last playthrough's stats. The true ending has the player finally defeat the final boss in a permanent way (perhaps the evil of the dungeon itself enters the boss and there is a harder boss fight?) and thus their soul is not absorbed.

End the normal ending of the game with a cutscene that indicates that there's a true ending?

"This can't be it... There must be a way to bring an end to this evil once and for all."

- The player's soul is taken by the dungeon, so the player's stats become the boss's stats for your next playthrough
- (Storywise, the dungeon has been doing this the whole time, every time it is beaten it just becomes stronger by absorbing the victor's soul)
- True ending possibly based on when the town is fully upgraded or whether the town's quests are fulfilled?
 - True ending: the player defeats the dungeon without having their soul absorbed

State Diagram



Mechanics

Player

- Mobile and dodge-heavy battle system
- Ability to dodge attacks on ground and midair
- Camera can move independently of player to promote the player's ability to control what happens around them

Stats

- Strength
 - Modifies player's melee damage
- Intellect
 - Modifies player's magic damage
- Stamina

- Modifies cost of intense actions (dodging, special physical abilities, etc.) [time-based, individual CDs affected but not GCD]
- Modifies player's health points(HP) [Major]
- Dexterity
 - Modifies player's bow damage
 - Modifies player's base attack speed
- Movement Speed

Traits

- Class - Offers a major mechanic that distinguishes this character from others. They also provide the majority difference in that character's starting stats. For every class that doesn't specify a stat, assume all other generated stats are generated as +2 to +8 (ex. Hunter's strength would be +2 to +8).
 - Mercenary:
 - Active:
 - Passive: Player gains double gold drops from slaying enemies and bosses
 - Stats: +5 to +11 to all stats.
 - Hunter:
 - Active: Can execute a melee attack to deal damage and regain some health. Finishing the enemy off will restore greater HP
 - Passive: Player attacks with ranged weapons have a chance to critically hit for x3 damage
 - Stats: +10 to + 15 Dex
 - Rogue:
 - Active: Player can become invisible for 5 seconds when ability is activated. 90s cooldown. While invisible, enemies cannot detect you.
 - Passive:
 - Stats: +10 to +15 Dex.
 - Flame Mage:
 - Active: Can cast fireballs and AoE walls of flames.
 - Passive: W/ town upgrades, is immune to fire and lava.
 - Stats: +10 to +15 Intellect
 - Blood Mage:
 - Active: Can transfer a target's health to their own. Concentration required.
 - Passive:
 - Stats: +10 to +15 Intellect
 - Warrior:
 - Active:
 - Passive: Gets stronger as player is closer to death

- Stats: +10 to +15 Strength
- Citizen:
 - Active: Gains one random trait from the other classes
 - Passive: Gains one random trait from the other classes
 - Stats: +2 to +10 to all stats.
- Distiller: Player is small with a big beard
 - Active: Can execute a power strike that critically hits for x3 damage. 20s cooldown.
 - Passive: Active ability scales with town upgrades and level of inebriation OR **each time you drink a potion**
 - Stats: +15 to + 20 Str and +0 to +3 Dex

Weapons

- Weapon damage output is calculated by some combination of weapon power and player's stats
- Active Item
 - Buy these or find randomly in dungeon
 - Not class-restricted
 - Some items have limits to use, and some don't
- **Types**
 - Sword
 - 2-handed great sword
 - Bow / Arrow
 - Staff (Magic)
 - Fireball
 - Magic Volt
 - Chain lightning
 - Heal
 - Ice Shield
 - etc...(please add more later!)

Enemies

- Some monsters can use long-ranged attacks, others will rely on getting close to the player and doing melee attacks
- Different enemies on different floors
 - 1-5 (Traditional)
 - Rats (Melee)
 - Slightly higher str, lower other stats
 - Slow melee bite attacks (str based)
 - Skeletons (Ranged)
 - Slightly higher int, lower other stats

- Boomerang Bones (int based?)
 - Bats (Flying)
 - Slightly higher dex, lower other stats
 - Locks onto a position that you were last at and then swoops at that position before flying back up (dex based)
 - Standard Slime (Additional)
 - Lower stats, but can inflict status effects
 - Status Effect?
 - Stun/Slow player
 - Leave trail
- 6-10 (Overgrown)
 - Large Spiders (Melee)
 - Slightly higher sta and dex, lower other stats
 - Faster but weaker melee attacks (str based attacks)
 - Plant? (Ranged)
 - Higher int, lower other stats, very low dex
 - Magic seed spit projectile attack (int based)
 - Spores (Flying)
 - Higher int, slightly higher dex, lower other stats
 - Follow the player, explodes after dying or after touching the player (~2 secs)
 - Poison Slime (Additional)
 - Lower stats, but can inflict status effects
 - Status Effect?
 - Poisons player
 - Leave trail
- 11-15 (Volcanic)
 - Goblin/Kobold (?)(Melee)
 - Slightly higher dex and str, avg int and sta
 - Fast and strong club attacks
 - Lava turtles (Ranged)
 - Shoot fireballs out of their shell
 - Fire Wisp (Flying)
 - Higher int, slightly higher dex, avg str and sta
 - Locks onto a position that you were last at, moves close to that position from a distance, and then shoots a fire projectile at that position before flying back up (damage is int based)
 - Lava Slime (Additional)
 - Lower stats, but can inflict status effects
 - Status Effect?
 - Sets player on fire player
 - Leave trail
- 16-20 (Lovecraftian)
 - Shadow Monster (Melee)

- High str and dex, avg sta and int
 - Hard to see, looks like the player
 - Fast melee sword attacks (str based)
- Leech Monster (Ranged)
 - High dex and sta, avg int and str
 - Fires leeches, latch onto player and suck life for a set time (like a status effect)
- Eyeballs (Flying)
 - High dex and int, low sta, avg str
 - Locks onto a position that you were last at, moves close to that position from a distance, and then shoots a projectile at that position before flying back up (damage is int based)
- Quantum Slime (Additional)
 - Blinds/disorients the player
 - Possibly teleports the player?
- Bosses spawn on every 5th floor (at the end of each theme)
 - Boss 1 (Traditional Dungeon): Buff Rat
 - High sta, slightly higher str, avg dex, lower int
 - Melee bite attacks (str)
 - Summon rat swarms?
 - Boss 2 (Overgrown): Giant Spider
 - High dex and sta, avg int and str
 - projectile web or poison attacks (dex)
 - Melee slash attacks (str)
 - Boss 3 (Volcanic): Dragon
 - High str, int, sta, avg dex
 - Projectile breath attacks (line, int), fire attacks (aoe, int)
 - Melee slash attacks (str)
 - Final Boss (Lovecraftian): Some lovecraftian thing possessed by the ghost of the last person to defeat the dungeon
 - Stats match those of the character to have last beaten the dungeon

Status Conditions

- Multiple status conditions can affect both the player and enemies. Player has a “condition” value that should be set accordingly and then reset upon condition expiration. Enemy will have this later as well.
 - Poisoned
 - x% of max health taken as poison damage over x seconds. Should damage Player/Enemy immediately upon getting affected by poison arrow or ability, or walking into a poison trail. After initial event, damage should continue to apply over some short amount of time before expiring completely (damage value does not reduce over time).
 - Burned

- x amount of health taken as fire damage over x seconds. Should damage Player/Enemy immediately upon getting affected by fire arrow or ability, or walking into a lava pool. After initial event, damage should continue to apply over some short amount of time before expiring completely (damage value reduces over time).
 - Slowed
 - Upon entering slowing area, speed is immediately reduced to 1. After initial event, speed is returned back to normal over time.

Dungeon

- Floors are procedurally generated upon the player reaching the exit portal of the current floor
 - Pull from prefab rooms/areas and link them together
 - Item drops handled through “ItemSpawnManager”
 - High-level ItemSpawnManager goes through each scene and looks for ItemSpawn nodes and generates level/scene appropriate gear
 - Enemy spawns handled through “EnemySpawnManager”
 - Like ItemSpawnManager, but handled enemies
- 20 total floors - bosses spawn at the last floor of each section
 - 1-5: Traditional
 - 6-10: Overgrown
 - 11-15: Volcanic
 - 16-20: Lovecraftian

Town

The purpose of the town is to provide a sense of permanent progression and a central hub for the player throughout multiple runs of the dungeon. Within the dungeon, the player can collect gold, which they can use to upgrade and create buildings in the town that give the player various permanent bonuses.

Town Management Mode

- Tavern building bonuses
 - Bonuses if certain types of buildings are placed directly adjacent to each other (within the four surrounding tiles)
 - Tavern + Smithy
 - Strength += 2
 - Tavern + Armory
 - Stamina += 2
 - Tavern + Item Shop
 - Intellect += 2
 - Tavern + Bank

- Dexterity += 2
- Buildings
 - Tavern
 - Improves the base stats of playable characters (+2 to all attributes for now)
 - Upgrades increase this permanent stat increase
 - Smithy
 - Sells weapons that the player can take into dungeon
 - Upgrades increase the offensive power of weapons sold
 - Armory
 - Sells armor that the player can take into the dungeon
 - Upgrades increase the defensive power of armor sold
 - Item Shop
 - Sells items that the player can take into the dungeon for passive bonuses
 - Upgrades increase the passive bonuses provided by items sold
 - Bank
 - Increases the amount of gold that a player can store
 - Upgrades further increase the storage size

Town Explore Mode

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Technical Design

- Individual buildings are handled through BuildingController
 - Detects when players click on pre-existing buildings and provides a menu for the player to upgrade, move, or delete the building
- The town as a whole is managed by BuildingGridController
 - Ensures that buildings can only be placed in a grid
 - Saves any change in configurations of the grid to PlayerPrefs to keep the town consistent throughout the game

Inventory

Holds one weapon and multiple items that give the player a passive buff. The player can swap items within the inventory when they're within the town, and tooltips are visible in both the town and the pause screen. If a player picks up another weapon while they have one in their inventory already, the currently held weapon will be dropped in front of the player on the ground. The player's gold will also be stored within the inventory panel, although it will appear in a separate location of the weapons and items.

- 20 slots
- Item stack up limit - 10 stacks (Or maybe 5?)

Items

Player can carry one active use item that has x amount of uses before expiration. If Player picks up one active use item, they'll drop their current item.

UML Class Diagram

Each class has a reference to the referred class. For a more detailed version, click [\[here\]](#). There should be an arrow from Player to InventorySlot in the delegate view (right side) of the detailed version, labeled "observes". LucidChart wouldn't allow another element to be added to the diagram.

