Dungeons and Digital Game Design Document

Version 1.0.0

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**Revision List**

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# 1. Introduction

This document lays out the design for my new game called Dungeons and Digital. This will go into detail regarding the design, art-style and intended scope for the project. This is intended to flesh out the project in detail before beginning the main work of the project.

## 1.1 Game Summary

The game itself is set in a far distant future where the world has technically ended due to people destroying themselves with technology. The remnants of the world now are only suitable for old-style combat such as using swords and bows along with some interesting magic evolved from nuclear radiation. The world will have remains of the technological world but will mostly be a desolate nature scape where the player will delve into dungeons and travel to villages to assist the locals, fighting off any irradiated enemies along the way. The player is an irradiated human being with special abilities that they are aiming to use to serve the forces of good in this wasteland.

## 1.2 Game Inspiration

This has been inspired by games such as Fallout and Dungeons and Dragons as well as Stardew Valley. This carries the theme of a Nuclear wasteland from fallout but brings more role-playing elements to it with the more fantasy style combat. Stardew Valley is a big inspiration on the art style, and this will be the preferred style of art that I will be using for this game.

## 1.3 Game Scope

This is intended to be a smaller scoped game with minimal features. This is intended to be a learning experience rather than something that will be extremely ambitious, therefore the scope is kept to an amount of work that I should ideally be able to achieve within a months’ time. With that in mind, I will be trying to get a lot of the work done from 3rd party sources such as art, animations, and possibly music. My main goal for this project will be to program the systems and create a small story for the game.

For this game, the features will be limited with only a small number of playable character types (mage, ranger, warrior) with a small number of attributes to support those classes. Furthermore, the art will be used from an external and free library, and I may create custom art when there is a need for it. I will try to create the music for this game and any story although there will be very minimal story behind this game, mainly just notes for the player to find in-game and potentially small quests from NPC’s.

# 2. Target System

Dungeons and Digital will mainly target Windows systems, specifically Windows 10/11 systems. There may be an attempt to port the game to other systems as well in the future to learn about that process, but the focus will be on Windows Systems. There may be a need to port the game to web systems as well to post the finished game on itch.io however that will not be the main concern when designing the game.

# 3. Development Software

Dungeons and Digital will be developed with a variety of different software but the main game engine for this game will be Godot. Godot is a free and open-source engine that allows for a higher level of control if needed. Furthermore, Godot doesn’t cost money and allows for publishing with owing them money if you make money.

For the art rendering, I will be using Adobe Photoshop to create any pixel art and animations. For music and SFX I will be using Able Live Lite and my keyboard piano to create the different tracks. When creating any written story ideas I will be using Microsoft Word to keep hold of these stories until they are used in the game. Lastly, to assist in tracking the user stories and all of my tasks, I will be using Microsoft Excel.

Lastly, I will be experimenting with AI tools to help with the development process. This will largely mean using ChatGPT to assist with more generic tasks. This will involve things like creating placeholder dialog trees or writing code very quickly that I otherwise already know how to do. This will not be used as a replacement for learning, as I want to use my own skills and personality for creating most of the features for the game, however if there are points that I can use it then I will try to do so.

# 4. Gameplay

The main gameplay loop for the game will be to find a village, speak with locals about issues, delve into the nearby “dungeon”, and come back to the village to collect rewards or sell / buy items.

## 4.1 Mechanics

### 4.1.1 Combat

Combat is the first major mechanic for the game. The combat will involve real-time hack and slash style combat where the player will face the enemies with the different weapons that are available to the specific class they are playing. For simplicities sake, this means that rangers will be using bows / daggers, mages will be casting magic spells, and warriors will be swinging their large weapons.

The combat style of the game will be a large point of where the gameplay is occurring so it will be important for the combat to feel fun. I want combat to be fast paced with the enemies and players moving around on the screen a lot and effects to make combat feel satisfying. Each class will have special abilities and effects that make them unique, such as warriors creating knockback or having massive attacks, rangers being able to dodge in-and-out of close-range combat and balancing between archery and dagger use while mages will have many different spells that might boost them or add shoot out projectiles at the enemy.

For targeting the enemy that player will be using their mouse so when they cast a spell or use an ability that will rely on where their mouse was at that time. This means that the combat will require a higher level of accuracy to hit the enemy targets and a certain level of acquired skill. Each enemy will have a different move set as well, some being easier to hit while others are more challenging to hit.

The player and the enemies will also have armor that may have an effect of negating damage types or boosting the creatures damage types. Armor / Weapons will likely be a big part of the reward system for achieving certain tasks, therefore the weapons and armor will be procedurally generated with possibly a few specific legendary sets that are hard coded into the game.

Lastly, each dungeon should have a final boss who is a larger and more challenging enemy. This enemy will have special attacks that will be highlighted on the ground for the player to dodge out of. The bosses may also have different phases when the player reaches a threshold of health, changing how the boss fights at that different phase.

### 4.1.2 Dialog

There will be a dialog mechanic where NPC’s will have a set of phrases and options for the player to choose how to speak with them. The NPC’s will offer the player quests if they ask the right set of questions and the NPC’s may offer trading to the player if they are a trading NPC.

### 4.1.3 Inventory

There will be an inventory where the player will be able to track the items that they have acquired throughout the game. This will allow the player to equip different items, view the effects that items might have, or drop items onto the ground when they no longer want them.

### 4.1.4 Trading

There will be specific NPC’s that allow the player to trade with them. This will allow the player to buy things such as potions and weapons or this will allow the player to sell items for gold to trade with other NPC’s.

### 4.1.5 Puzzles / Hacking

The world is the remnants of a technological super civilization so there will be technological items throughout the game that allow you to hack into them. These will be puzzles that require an abstract level of thinking and are intended to be quite difficult to solve. Once solved these can serve many functions such as being a trader, assisting in combat, revealing alternate paths, being equipment and etc.…

## 4.2 Controls

The controls will be curated to a mouse and keyboard setup without consideration for console controllers at this time. The controls for the game will be as follows:

*w, a, s, d*: Player movement

*up arrow, down arrow, left arrow, right arrow:* Player movement

*tab*: Player Inventory

Numbered Keys: Player Spells / Abilities

*Left click:* Attack / Use / Speak

*Right click:* Block

*Spacebar:* Dodge roll – in direction of travel

*Hold Shift:* Sprint

## 4.3 Dungeons

Dungeons are to be procedurally generated, there will be no manually created dungeons at this time. A “Dungeon” is a representation of whatever structure the player will be traveling into the find something to fight or to solve some issue for the villagers. Dungeons will be generated from modular “dungeon cells” which are each connectable pieces of dungeon content such as a small room.

## 4.4 Player Levels

After completing quests or defeating monsters, the player will be granted a certain amount of experience points. This will drive the player to increase in level, where the player will gain health, stats or additional abilities to fight and defend themselves. Right now there will be no level cap on the player although the leveling system will likely follow closely Dungeons and Dragons 5th edition standards.

# 5. Art Style

The game is set in a post-nuclear and post-technological world not too dissimilar to the Fallout Series. This means that there will be a lot of vegetation mixed with destroyed technological equipment. As for the art-style, for now I will be using a pixel-art style and I will be using the art found at this website (<https://opengameart.org/content/dungeon-crawl-32x32-tiles>) as the majority of the textures. This may be open to changing in the future dependent on time constraints. Example artwork:



## 5.1 World

The world itself will be more-or-less a forest wasteland, where most of the wildlife has regrown or mutated due to nuclear radiation. There is technology that can be found in the world left in ruins that may be of some use to the player.

## 5.2 Enemies

The enemies of the world will largely be irradiated organisms with a splash of technological beings that the player may have to contend with as well. This could include mutated squirrels, mutated wolves, mutated humans and defense robots.

## 5.3 UI/UX

Since this game is intended to be a more classical RPG, there will be a health bar, mana bar, and stamina bar. The Health bar will determine the players health, the mana will determine if the player will be able to cast further spells and the stamina bar will dictate the players ability to dodge roll or sprint.

Additionally, there will be a small hot bar at the bottom of the screen to show the player what abilities they have to use, along with small icons to indicate to the player which effects they currently have active on themselves.

A screenshot of a video game

Description automatically generated Lastly, there will be a couple of screens that will pop up based on user input. Primarily, the inventory screen will be an overlay that opens for the player to interact with items they are carrying. This screen will be similar to Diablo’s inventory screen. There will be spots where the player can equip items to their character and there will be spots where the remaining items of the players inventory fit. For developing the UI I will be using this pack found here (https://crusenho.itch.io/complete-ui-essential-pack). Sample images:

A screenshot of a video game

Description automatically generated

## 5.3 Music/SFX

For the music of the game, the theme will match a more melancholic theme with some amount of cyber punk themes to it. This will be more slowly played pieces composed on the Piano mainly along with more electric and techno sounds mixed in to add more cyber punk vibes.

For sound effects I will be using more harsh and electric sound effects, but they will be more subtle. Any sound effects will be made with Able Live Lite by remixing different sound effects found in that software or by recording some of my own custom sound effects.

# 6. Story

For the prototype of this game, the story will be very minimal. Due to time constraints and the overall goal of the game, the story will be on the back burner for now. For most of the dialog I will be using ChatGPT to generate dialog trees and modify them as I deem necessary. Any story elements will be limited to NPC’s discussing their problems in the wasteland and potentially small notes left in the game for the player to read.

# 7. Target Audience

For this game the target audience will be a smaller group of people, mainly adults who are interested in role-playing games. This game will have adult content and themes and therefore not be fit for children. Furthermore, the game will contain many difficult puzzles that are intended to be challenging for adults to solve.

# 8. Team

The team for this project will be comprised mainly of just me. I may eventually pay for assets to be created for this game however I am aiming to learn as much as I can from this project. Any assets that may need to be created I would mostly like to make them myself without impeding progress too much. I may ask Brenna to help out on certain parts of the writing to see if she would be willing to help.

# 9. Time Constraints

Overall the major time constraint on this project is to attempt to have a working prototype by 10/20/2024. This provides me with five weeks of development time, at which point I can determine if I want to move forward with creating more or leaving it there.

The challenge in this project will be learning what I need to learn in this time and bringing it all together to create a proper framework of the game before the five weeks are over. To make this happen, I intend to work on this project at least 4 times a week, for ideally an hour or more each time I am working on this project.

This also means that I will be using a lot of placeholder assets for the prototype rather than making most of them myself. The reason being that the software development side will be my primary focus, and this will take a large chunk of time already. After the prototype is completed then I will consider creating the other assets from scratch to have a more authentic feel to the game.