

Jake Brown (Leader)
Siming Chen
Jiang Jiang
Michael Lee
Brandon Vickrey

Product Backlog - Dungeon Drive (D:)

Problem statement

People need new and exciting ways to pass the time. We want to create a unique video game experience to do that by using the player's file system to generate the game world.

Background

There are many types of video games in the world. We want to continue expanding what is possible in a videogame with our unique idea to generate the game based on the user's filesystem. We think that such an idea could really be an interesting way to both entertain and inspire people. Minecraft was a great example of a game that nobody knew they wanted until they had it, and we feel our game could fill a similar vein. With the ability to generate the game based on some user input, it could open a new world of not only playing, but creating your own game for people that may otherwise not be able to do such a thing. Even children, who may not understand how to create a game of their own, could easily create a custom world to explore out of arbitrary files. Not only that, but the game also could inspire other developers to think outside the box in making their own titles.

Requirements

Must be done:

Functional Requirements

- As a user, I would like dynamic 2D maps generated based on the files and folders in my filesystem.
- As a user, I would like to be able to move a character around the generated world.
- As a user, I would like the game to have appealing graphics.
- As a user, I would like the world to be inhabited by enemies with varying types of artificial intelligence.

- As a user, I would like to have a combat system to fight enemies.
- As a user, I would like for the game to include a loot system.
- As a user, I would like to have a interface to start the game.
- As a user, I would like to be able to pause/resume the game.
- As a user, I would like to be able to lose the game by dying.
- As a user, I would like to be able to save the game and load it in the future.
- As a developer, I would like to read the user's filesystem without crashing.

Nonfunctional Requirements

- As a user, I would like the game to run as smoothly as possible. For instance, when user has a complex folder with many sub-folders, the program would load each floor(folder) individually so the game will not run slowly.
- As a user, I would like the game to be running with as few bugs as possible. For instance, when a corresponding file is deleted while game is running at the same time, the game should not crash.
- As a user, I would like the game to be under a reasonable amount of difficulty/fluency. For instance, when user inputs a large folder with too many files, the game would implement a cap to the amount of enemies/units.
- As a user, I would like for the response time for input to be unnoticeable.
- As a user, I would like the game to have simple instructions and can be deployed easily
- As a user, I would like the gameplay to be accessible as well as have reasonable depth.
- As a developer, I would like to be able to easily add support for different file types.
- As a developer, I would like the code to be easily navigable and intuitively written.
- As a developer, I would like to run this game on Windows machines.

Will be done if time allows:

Functional Requirements

- As a user, I would like my character to be customizable with different items such as weapons, armor and consumables.
- As a user, I would like enemies to scale in difficulty with respect to my character's growth.
- As a user, I would like the game to have some music.
- As a user, I would like an options menu to adjust options such as sound levels.
- As a user, I would like there to be an interesting storyline.

- As a user, I would like the option of using a gamepad.
- As a user, I would like to have a tutorial at the beginning of the game that teaches me the game mechanics.
- As a user, I would like varying types of environments.
- As a user, I would like to have some cool animations to be added to game characters.
- As a user, I would like sound effects to go along with gameplay.
- As a user, I would like a leveling system for my character.

Nonfunctional Requirements

- As a developer, I would like to be able to introduce my own mods to the game.
- As a developer, I would like the game to use as little resources as possible.