

# Project Design Document

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## Project Concept

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### Player Control

You control a

*Ninja*

in this

*sideView*

game

where

*A, D, Space and Mouse1*

makes the player

*run Horizontally and by pressing Space, it makes the character jump.*

*When clicking Mouse1 it shoots.*

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### Basic Gameplay

During the game,

*enemies, blocks, traps and items (like heals or other special abilities)*

appear

from

*Mostly the top/right of your screen as you travel the map.*

*Traps will be prebuild, so you can learn the pattern to get good score and time.*

and the goal of the game is to

*Gain score by traveling the map and killing enemies.  
There is a timer, so you can try to speed run the map and get better time and score each time.*

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### Sound & Effects

There will be sound effects

*when you jump, run, die, collect Items, touch specific blocks/platforms, and do other mechanics like shooting.*

*There will be background music too, and timer ticking sound.*

and particle effects

*when you kill enemy or collect items.*

[optional] There will also be

*- Water animation below blocks and player if have time.*

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## Gameplay Mechanics

As the game progresses,

*enemies spawn mostly from above, and if you touch them, it removes a specific amount of health from you. You can avoid enemies by shooting them.*

*There will be traps around the map, and if you touch them, you die.*

*You can collect heal-, and other items that give you special abilities.*

*You will have a timer, score and lives on your screen which keeps you in track.*

making it

*makes the game a lot harder, more enjoyable and competitive.*

[optional] There will also be

*- Enemies also have different amounts of health.*

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## User Interface

The

*score/lives/timer*

will

*increase/decrease*

whenever

*you travel the map or kill enemies, it increases the score.*

*If you touch the enemy, you lose a life, and if you fall to the water or traps, you lose all lives instantly.*

*You can increase lives by collecting heals, etc.*

*Timer will start decreasing as you start the game, if the timer ends, you lose.*

*You can get more time in timer from specific special items.*

At the start of the game, the title

*"Cavern2D!"*

will appear

and the game will end when

*You've reached the end of the map or the timer ends, or when you've lost all your lives.*

*Text "Game Over" will appear to the screen.*

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### Other Features

- *Water below the blocks, if you fall you die.*
- *Player and the enemies will have cool sprite sheet animations.*

## Project Timeline

Milestone	Description	Due
#1	<ul style="list-style-type: none"><li>- <i>Project design doc/ Project plan</i></li></ul>	3.2
#2	<ul style="list-style-type: none"><li>- <i>Player movement, Camera Setup and small game field.</i></li></ul>	10.2
#3	<ul style="list-style-type: none"><li>- <i>shooting</i></li><li>- <i>items</i></li><li>- <i>enemies</i></li><li>- <i>game field</i></li><li>- <i>score, timer and lives</i></li></ul>	10.3
#4	<ul style="list-style-type: none"><li>- <i>Animations</i></li><li>- <i>Particles</i></li><li>- <i>Overall making the game look good and playable.</i></li><li>- <i>Sound effects</i></li></ul>	24.3
#5	<ul style="list-style-type: none"><li>- <i>MVP and presentation is ready</i></li></ul>	7.4
Backlog	<ul style="list-style-type: none"><li>- <i>Water animation below the blocks and player.</i></li><li>- <i>Cool menu</i></li></ul>	

## Project Sketch

