**Software Requirements and Design Document**

**For**

**Group 2**

Version 1.3

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# Overview (5 points)

The game is a recreation of Super Mario Bros from the NES, and is being built in Godot, a game engine that supports 2D platformers. It is being written in Godot’s own language, GDScript, but that may be subject to change at a later date. The game will have three levels: Overworld, Underground, and Castle. Each level will have its respective difficulties, such as enemy count, obstacle count, and item count. (Z)

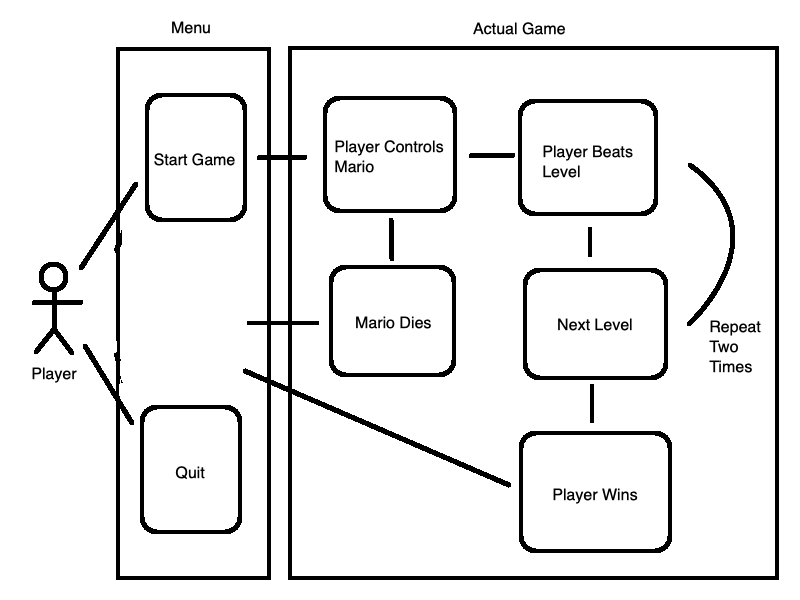
# Functional Requirements (10 points)

1. A working player control scheme so that, based on keys pressed, Mario will move how the player controlling him wants him to move (High) (Z)
2. A functioning level system with transitions and proper collision (High) (Z)
3. Working enemies and obstacles (Medium) (Z)
4. Accurate representation of character and enemy animation and sound design (Medium) (J)

# Non-functional Requirements (10 points)

1. Mario being capable of death, and upon death, a “game over” screen will appear. (Z)
2. Mario will retain whatever power ups he received in the previous level when transitioning to the next. (Z)
3. Enemies will persist even while off-screen to discourage the player from moving past enemies instead of eliminating them. (J)
4. Software should be able to maintain consistent FPS while the enemies and objects are all loaded. (R)

# Use Case Diagram (10 points)



# Class Diagram and/or Sequence Diagrams (15 points)

EMPTY FOR THE FIRST INCREMENT

# Operating Environment (5 points)

The game will be playable on any kind of computer, be it desktop, laptop, Windows, or Mac. It will not run on any other kind of platform. (Z)

# Assumptions and Dependencies (5 points)

1. GDScript can be easily translated in to C++. (Z)
2. Assets such as sprite maps and sheets are taken from The Spriters Resource website. (Z)
3. All aspects of the original Super Mario Bros game will be able to be implemented using Godot (J)