6. Implementation

Team 5 | Team Pending

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B. Non-Implemented Requirements

As of the completion of part B of the assessment, we believe that we have implemented all of our functional and non-functional requirements as described in our requirements table.

However, there were areas that with more time we would have liked to have expanded upon or altered the code to improve the game in its functionality, stability and readability. These are briefly described below.

1. Refactored the saving and loading code : At present, the saving and loading code sit at around 200+ lines of packing and unpacking objects to and from a JSON file. With more time we would have liked to have investigated other possible methods of saving or loading, or simply to have reduced the amount of code repetition in the functions to make the code more readable and maintainable.

2. Reworking how assets are placed in the world : We were originally going to alter the game such that all assets, like obstacles, enemies and colleges etc. were all placed using Tiled. However, due to time constraints we never got around to this. In retrospect this would have reduced the amount of time it took to place obstacles on the map and reduced our Game class by around 100+ lines.

3. Fixing random pickup spawn locations : At present, random pickups have a tendency to spawn in bunched up positions next to each other, often in the player shop. This leads to areas where the player can quickly grab multiple power-ups early in the game, making the game a lot easier. With more time we would have investigated this further and fixed this.

4. More weather events and obstacles : We struggled for more obstacles and weather ideas when designing the game. With more time we would have liked to have implemented more interesting and unique weather and obstacle variants that would have made the game more interesting.

5. Code refactoring : Areas of the code have become bloated and don't use best practices. With more time this should have been addressed.