Phase 4 Report

Group Number: 5

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Overview:

The game's goal is to escape the bank without getting caught by the cops while obtaining all the rewards. The player controls the bank robber and must collect all 86 coins on the map to obtain the key that unlocks the exit door. Once the player reaches the door, the game ends and showcases the player's score and the time it took to collect all 86 coins.

We stuck to our initial design that required a GameObeject superclass that each object in the game inherits from the superclass. We realized that since we did not continuously review our code and attempt to refactor when needed, we realized by Phase 3 that since most of the game is functional and does not necessarily need to be refactored, we did not change the bull of our code structure. Furthermore, we did implement classes and methods that implement the sound, health bar, time and other small features; none of these added-on features changed the overall code structure of the game. Although, for the bulk of the project, we had a hard time fixing our moving enemy tracking of the player, we believed that we had to refactor the whole game to get the feature to function; we eventually realized what our problem was and fixed the issue without the need to refactor the game. Our code structure did have high coupling due to having most of the code dependent on the GameObject class made it quite difficult to test some of the features in our game.

We learned quite a few important lessons that will lead to further practice in being better software engineers, even though one initial software design may seem to be functional. Constant testing of the program's code can show if refactoring is needed; we also struggled to follow our scrum-like process model consistently, leading to some crunching near the deadlines. Now that we know what it takes to work well in a software engineering team, such lessons we believe will play a critical factor in creating and maintaining complicated software for a company.

Tutorial:

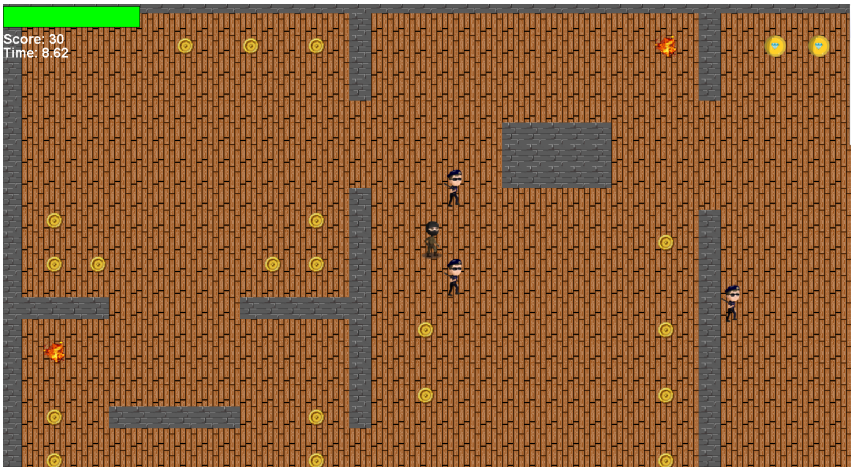
Controls:

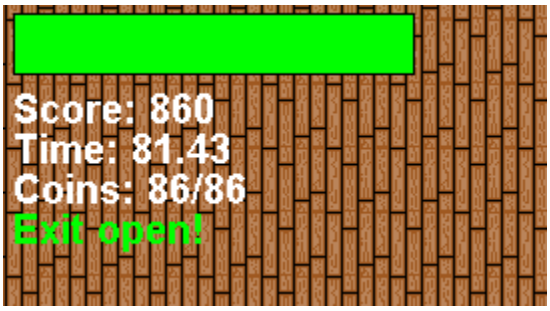
- WASD keys:
  - Press W to move the Bank Robber up
  - Press D to move the Bank Robber right
  - Press A to move the Bank Robber left
  - Press S to move the Bank Robber down

- Once the User presses the Mouses left button to select from the UI(menu)
- Once the User Press the ESC key the Pause Menu UI is displayed

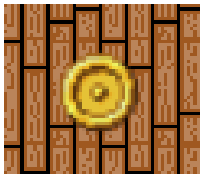
Features and Scenarios:

- Health bar decreases as player Collides with the fires on the map
- Score and time displayed under Health bar
- Once all 86 coins are collected The exit door is unlocked





Collecting Coins:



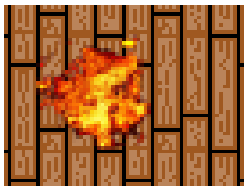
- A regular Gold coin is considered a Regular reward
- Adds 10 points to score Must collect all 86 coins to escape
- A regular Diamond gold Coin is considered Bonus Reward
- Adds 50 points to the score not required to escape
- The Player must use the WASD keys and collide with the coin to attain its reward

Game Characters:

- Bank Robber is controlled by the Player
- The 6 cops chase the player at all times in the game

Punishment:

- Fire object is considered a Static enemy
- Subtracts 50 points from score and does damage to Player Health



UI:

- UI Displays: