<u>Technical Design Document</u>

EGP 310 | Section 01 | Sprint 1

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<u>Delivery Platform</u>
We are creating our rendition of "Pac Man" will be developed for play on PC and will be distributed digitally. It will be built using C++ which is a very portable language.

<u>Development Environment</u>
IDE:
Visual Studio will be used by the team for creating and editing all of the header and class files for the game.

Graphics Library:
We will be using the ___ graphics library instead of Allegro in this project.

Version Control:
For version control we used SVN through TortoiseSVN. Google Docs will also be used for documents as it is a more convenient tool for us to use.

<u>Game Mechanics and Systems</u>
Goal [Easy Difficulty/Risk]
- Eat all of the pellets in the maze
- Avoid being killed by the ghosts

Starting the Game [Low Difficulty/Risk]
- The Player will begin in the middle of the maze

Moving the Player [Medium Difficulty/Risk]
- The Player will use Arrow Keys to maneuver the player
  - Left Arrow: will turn Pac-man to the left
  - Right Arrow: will turn Pac-man to the right
  - Up Arrow: will turn Pac-man upwards
  - Up Arrow: will turn Pac-man downwards
- The Player will move until it hits a wall in the direction the player chooses

Pellets [Easy-Medium Difficulty/Risk]
- There will be two different kinds of orbs on the maze

- ○ Pellet [Easy Difficulty/Risk]
    - ■ When the player collides with the small orb it is destroyed
    - ■ The player is awarded 10 points
- ○ Power Pellet [Medium Difficulty/Risk]
    - ■ When the player collides with the big orb it is destroyed
    - ■ The player is awarded 50 points
    - ■ The ghosts go into scatter mode
- When all of the pellets have been eaten the maze is reset

Ghosts [Medium Difficulty/Risk]
- Ghosts try to attack The Player
- When The Player and a ghost come within 100 pixels of each other the ghost will begin to chase the player
    - ○ If they collide in chase mode the Player loses one life
- Scatter mode
    - ○ The ghosts turn blue and they flee the player

Ending Game [Low Difficulty/Risk]
- The game ends when:
    - ○ The player runs out of lives