**M07 Implementation Plan**

The purpose of this document is to describe what the main kinds of implementation methods are and their purpose, and what implementation method we took in development. It also requires describing how to install the software, so I will be copying what I wrote in M07 User Documentation and pasting it below.   
  
The main kinds of implementation methods, as described in the [link attached to the assignment](https://computersciencewiki.org/index.php/Implementation_methods), are: Parallel, Phased, Pilot, and Direct.   
  
Parallel implementation involves running the new system alongside the old one, allowing users to compare outputs for accuracy and reducing the risk of data loss, as the old system remains operational. This method requires extra effort for data entry into both systems and risks discrepancies in data.

Phased implementation introduces the new system gradually, replacing small parts of the old system over time. This allows training and scaling issues to be managed incrementally, minimizing the impact of failures. It is slower to fully deploy and carries a risk of data loss if a new component fails.

With pilot implementation, a small user group tests the new system before broader deployment. This enables focused training and early problem identification with limited organizational impact. Scaling issues may arise when expanding beyond the pilot group.

A direct implementation replaces the old system entirely with the new one. This method can be effective for noncritical systems but carries significant risk if the new system fails, as there is no fallback.  
  
The implementation method that mostly aligns with our project would be Direct, as there isn’t a prior system to update like the other implementation plans. I feel like this is the only one that represents our project due to the other plans relying on previous programs being up and pilot requires user input.

**Installation**

This program works on the Visual Studio Code IDE so any references may be exclusive to it. Although, it should be compatible with any IDE that can interpret Python.  
  
Below are the steps to install the checkers game program:

1. Download the Python file from the provided Github repository.
2. Open the game program in your IDE.
3. Run the program.

If you run into issues with running the program because of errors with the “import pygame” line of code, refer to the troubleshooting section in M07 User Documentation.