# Homework 1: Pac-Man GUI

**Due Dates: 9/10/17, 10pm (Submission on blackboard)**
**Points: 5**
**Assignment Type: You may work in group of 2-3 people**

## Introduction

For this project, you are required to create a GUI for the classical Pac-Man game (http://en.wikipedia.org/wiki/Pac-Man) in a programming environment you prefer. The purpose of this project is to prepare you with the programming skills for completing your future game AI projects in a similar programming environment.
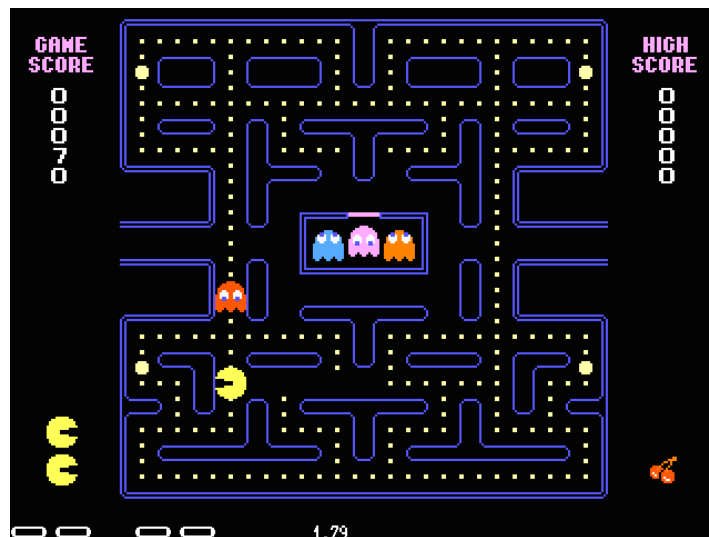


## Requirements

- GUI
    - You should match the color and layout as close to the picture above as possible
    - If you want to choose your own icons for representing Pac-man and the ghosts, they should have distinguishable front and back sides. Both Pac-man and the ghosts can only move in the direction they are facing
    - You should create at least one button for starting/restarting the game
- Maze

- The configuration of the maze should be stored and loaded from a readable text file – you can decide the format of this text file as well as the layout of the maze
- Four enemies (Blinky, Pinky, Inky and Clyde)
  - No AI is required for the ghosts
    - They can move in random directions, but can't move into walls, each other or Pac-Man
- Pac-Man
  - For this assignment, Pac-Man's movement should be driven by keyboard
  - Pac-Man will die as soon as it is caught by a ghost
  - Similarly, it can't move into walls, or the ghosts
  - Your program should automatically rotate Pac-Man's orientation when it changes direction
- Scoring
  - For each pellets Pac-Man eats, it's score increases by 1
  - There is no super pellet
  - Keep record of the highest score among all sessions