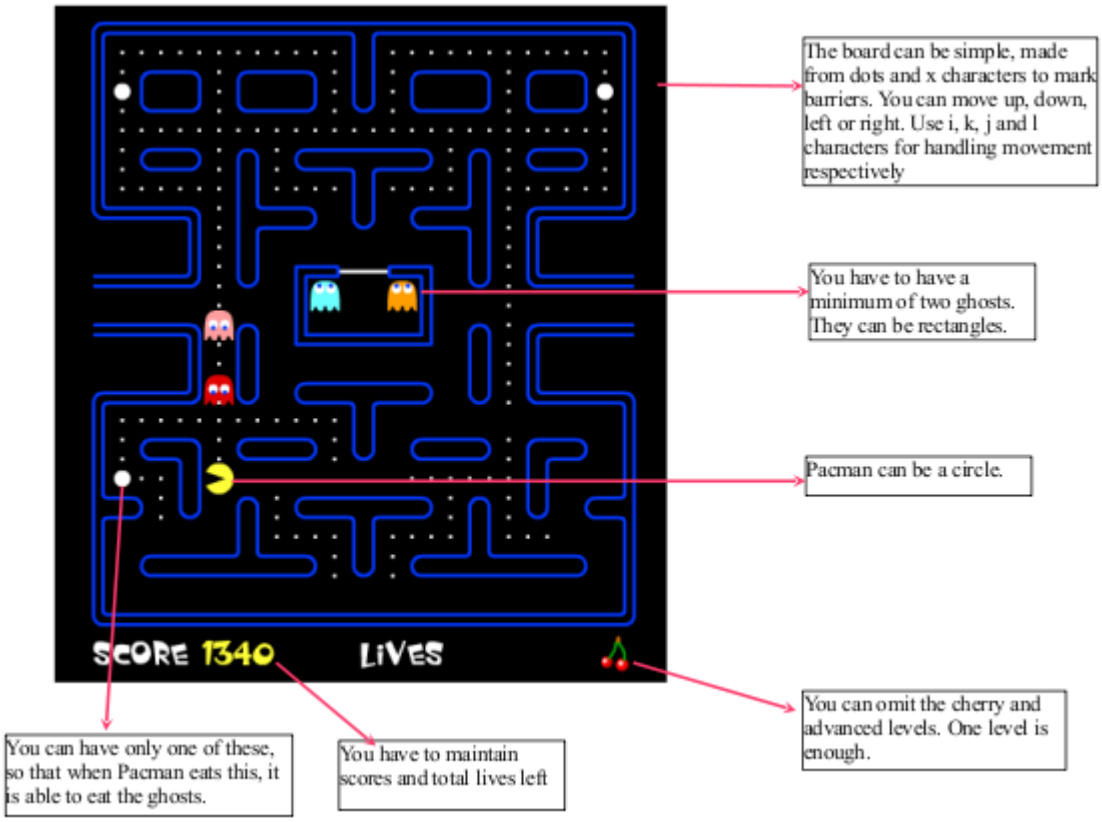
Object-oriented Programming

Course Project

Pacman Game



Pacman is a popular maze chase game with numerous implementations done for several platforms over the years, since its first introduction in the mid 1980s. The objective of the game is to eat all of the dots placed in the maze while avoiding the ghosts that pursue him. The game continues until there are remaining lives, which is lost when the Pacman comes in contact with the ghost. Pacman can also eat energizers (large circular dots) that gives him power to eat the ghosts for a few seconds. When a ghost is eaten, bonus points are awarded.

The project is to develop an **Object-oriented** Pacman game using the concepts of **association**, **inheritance and polymorphism**. Create a **Maze** in which the **Pacman** and **Ghost**(s) can move in the open spaces, which are littered with **Dot**s that can be eaten by Pacman. **Energizer** is a special kind of dot that gives extra strength to **Pacman** to eat a ghost also. Each **Ghost** uses a different **Strategy (e.g. random, direct pursuit, etc)** to chase **Pacman**.

Use appropriate classes to model all relevant concepts.

Instructions

- You are provided with a simple graphics library that you may use for rendering graphics and handling events on a Windows console.
- You have to submit a complete working system, along with the source code and a README file that tells us how to use your software.
- Your implementation shall be **object-oriented** according to the description given above. **No credit without proper use of association, inheritance and polymorphism**.
- Your code should be properly commented and use descriptive and meaningful names for classes and their members.
- Your program should be user friendly
- Plagiarism will not be tolerated. It will result in a straight F in the course and forwarded to DC committee, who might award 5 F's in all courses you are taking.