Pac-Man

[2-hour exercise]

This exercise is based on the famous Pac-Man game.

Brief Game Rules

1. Pac-Man, our hero, moves around the room, munches all of the Dots he meets.
2. Four ghosts roam the room, trying to catch Pac-Man. If a ghost chomps Pac-Man, a life is lost. When all lives have been lost, the game ends.
3. In each corner of the room there is a "Power Pellet" that provides Pac-Man with the temporary ability to eat the enemies. Pac-Man can get extra points by eating the ghosts. The first one is worth 200 points and each additional ghost eaten is worth double the number of points (from 200 to 1600 per ghost eaten).
4. Pac-Man can get extra points as "bonus fruit" appear. The number of points given for each fruit depending on the fruit type.
5. When the Pac-Man reaches 10000 points, he gets an additional life.

Scoring System

Dot:
- 10 points

Vulnerable Ghosts:
- #1 in succession: 200 points
- #2 in succession: 400 points
- #3 in succession: 800 points
- #4 in succession: 1600 points

Vulnerable ghost succession should not be a continuous sequence, it means that it could be spaced out by other entities.

Example.
If you have: "VulnerableGhost,Dot,Dot,Dot,....,VulnerableGhost"
The first VulnerableGhost is worth 200 points and the second one 400 points although there are some Dots between the first and the second occurrence.

Fruit:
- Cherry: 100 points
- Strawberry: 300 points
- Orange: 500 points
- Apple: 700 points
- Melon: 1000 points
- Galaxian: 2000 points
- Bell: 3000 points
- Key: 5000 points

Exercise development

1. The attached CSV file ("KataPacman-seq.txt ") contains the list of the entities that Pac-Man meets during the game in order of appearance.
2. Read the file and manage the specific collision with each entity by scoring points and lives. Assume that Pac-Man starts the game with:
   - 5000 points
   - 3 lives
3. At the end of the game print out the total points and total lives gained.
4. Adopt an OOP approach.

You probably won't be able to complete all of the tasks, however a good code design will be evaluated positively despite the missed completion.