

Pac-Man

You need to program the Pac-Man game, and its screenshot is shown in Figure 1. The player controls Pac-Man, who must eat all the dots inside an enclosed maze while avoiding four colored ghosts. Eating large flashing dots called "Power Pellets" causes the ghosts to temporarily turn blue, allowing Pac-Man to eat them for bonus points.

You can search Pac-Man and try to play the game first.

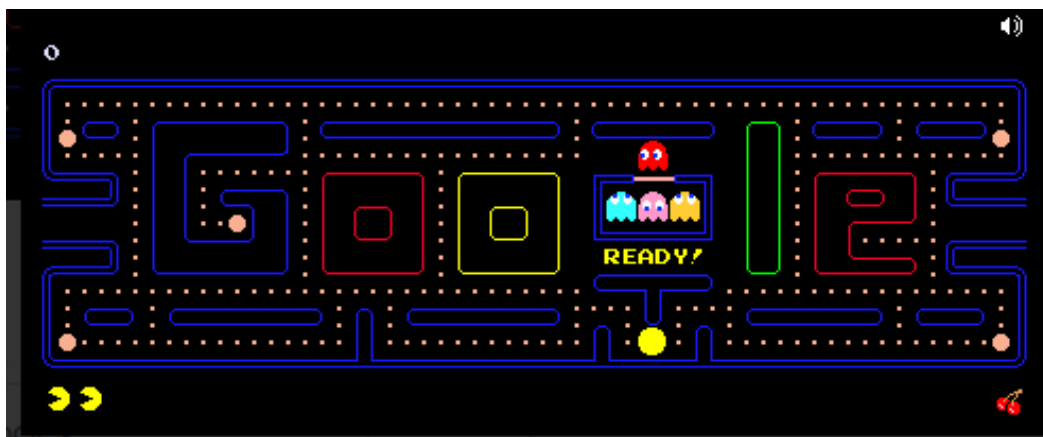


Figure 1 The screenshot of Pac-Man

Assessment Criteria:

The overall score 100 will be computed according to the program score (60%), the document score (30%) and the GUI (graphical user interface) score (10%). The program score will be assessed based on the score you get in the game.

The Pac-Man Game Document

Class: CS21-1-3

Student ID: _____

Student Name: _____ (in Chinese)

Development Tool(s) and Language: _____

1. Algorithm(s)

Use pseudocode to illustrate the algorithms(s) and try to analyze the complexity of the algorithm(s).

2. The Development Procedure

Introduce the procedure of developing the project. Besides, you need to describe what problems you have encountered during the procedure and the corresponding solutions. You also need to summarize what you have learned by developing the project.

3. References

Must have English references.

[1]

[2]

[3]

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大作业提交方式：

2023 年 6 月 30 日之前把源代码（文件夹命名为“源代码”）和大作业报告（单个文件，模板参见“The Pac-Man Game Project.docx”文件的第 2 页，报告另存为 pdf 格式，命名为“学号_姓名.pdf”）打包为压缩文件“学号姓名.rar”（比如“180101309 石国林.rar”），上传至 [ftp://211.71.149.53/徐艳艳/课程作业/Algorithm Design and Analysis \(Project\)](ftp://211.71.149.53/徐艳艳/课程作业/Algorithm Design and Analysis (Project)) 文件夹中。如果上传后需要修改，则新传文件命名为“学号姓名_修改 1.rar”，以此类推，重新上传即可（以最后上传的文件为准）。

请注意：打包交上来的.exe 务必是在 win10 上能直接运行的（不用再安装或配置其他环境）