**PACMAN GAME**

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**1.PROBLEM STATEMENT:**

To create pacman game which is to be played by one individual at a time, using C language.

**2.DESCRIPTION:**

Pacman is a maze game in which the player controls pacman character within the enclosed maze. The objective of the game is to eat all of the dots placed in the maze and the player cannot move beyond the maze. The pacman can be navigated or controlled using arrow keys. That is by clicking left arrow, the pacman moves left, by clicking right arrow key, the pacman moves right and so on. When the pacman eats all the dots with in the maze, the player wins. The score will be displayed in the console below the maze. The score depends on how many dots the pacman eats while moving.

The pacman is an easy and fun game to play which comes under the genre of maze games. The classic pacman is a maze arcade game developed and released by Namco in 1980. It was the first video game character to really take off and it did pave the way for a lot of video games we see today.

**3.OVERVIEW:**

In this particular project, the game is designed as a console application. The console application is a program designed to be used via text-only interface. A user typically interacts with a console application using only a key board and digital display.

That is when we run the application, a console/output window will be opened in which a maze will be displayed as designed in the program. The outline of the maze is developer’s choice and it can be modified. Then the player can control the pacman character using arrow keys. To exit the game, the player can close the console window.

**4.REQUIREMENTS:**

* Ability to display maze in the console after running the application.
* Ability to control the pacman with left, right, up and down arrow keys.
* Ability to display score of the player.
* Ability to display output in less than a second.
* Ability to change the design of maze.
* The program should not access any user data files or programs.
* The program should not alter or replace any system files.

**5.RESEARCH:**

Research is done on what actually is a pacman game and how to develop this game using C language.

The pacman game can be developed either as console application or using graphics. To develop this game using graphics, turbo c is used. But the simplest way to develop is by designing as a console application. This application can be compiled using GNU GCC compiler in code::blocks IDE.

**6.TEST PLAN:**

|  |  |
| --- | --- |
| **S.NO** | **Test Objective** |
| 1. | To check if the program displays maze in the output window. |
| 2. | To check whether the pacman is being controlled using arrow keys. |
| 3. | To check whether the score is displaying or not. |

**7.TEST CASES:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test case ID** | **Action** | **Inputs** | **Expected output** | **Actual output** | **Result** |
| TC\_01 | Start application | Run application | Display maze | Display maze | PASS |
| TC\_02 | Press left arrow key | **-** | Pacman moves left | Pacman moves left | PASS |
| TC\_03 | Press right arrow key | - | Pacman moves right | Pacman moves right | PASS |
| TC\_04 | Press up arrow key | **-** | Pacman moves up | Pacman moves up | PASS |
| TC\_05 | Press down arrow key | **-** | Pacman moves down | Pacman moves down | PASS |

**8.EXPECTED** **RESULTS:**

A maze will be displayed in the console/output window in which the pacman will be controlled by using arrow keys. The score will be displayed below the maze by clicking anywhere on the console.

**9.REFERENCES:**

* <https://m.youtube.com/>
* <https://en.wikipedia.org/wiki/Pac-Man>