**Title: PacMan Using Python**

**Name: Sanju Stephen**

**Abstract:**

The Pac-Man game is a classic arcade game that involves controlling a character named Pac-Man to navigate through a maze, eat dots, and avoid ghosts. In this abstract, we propose to implement a Pac-Man game using Python, a versatile and beginner-friendly programming language.

Our Pac-Man game will be a 2D game with simple graphics and gameplay mechanics. The game will feature a maze generated from a predefined layout, with dots scattered throughout the maze that Pac-Man needs to eat. The player will control Pac-Man's movement using keyboard inputs, and Pac-Man will move in discrete steps from one cell to another in the maze.

The game will also feature ghosts that move autonomously, with predefined behavior patterns such as chasing Pac-Man or patrolling specific areas of the maze. If Pac-Man collides with a ghost, the game will end, and the player will lose a life. Pac-Man will have limited lives, and the player's objective will be to eat all the dots in the maze and avoid ghosts to achieve the highest score possible.

To implement the game, we will use Python's built-in modules for graphical rendering, such as Pygame, which provides tools for drawing graphics and handling user input. We will also use Python's data structures, such as lists and dictionaries, to represent the maze, Pac-Man, ghosts, and other game objects

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Our Pac-Man game will aim to capture the essence of the original arcade game, providing an enjoyable gaming experience with simple graphics and addictive gameplay. It will serve as a fun and educational project for beginners to learn Python programming and game development concepts.

**Modules:**

There is only one module:

* User Module

**System Requirements:**

**Software Requirements:**

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| **Front End** | **Python** |
| **Back End** | **MySQL** |
| **OS** | **Windows 8, Linux, MacOS** |
| **IDE** | **PyCharm** |

**Hardware Requirements:**

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| **RAM** | **4 GB** |
| **Processor** | **Intel i5** |
| **Hard Disk** | **250 HDD** |

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| --- | --- |
| RAM | 4 GB |
|  |  |
| Processor | Ryzen 5 |