

Pacman Game

Team Members

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Project Title

Pacman Game Implementation using Java

Project Description

This project is a Java-based implementation of the classic Pacman game. The game features:

- A grid-based map with walls, food pellets, and ghosts.
- Pacman movement controlled by arrow keys.
- Ghosts that move randomly and chase Pacman.
- A scoring system that increases when Pacman eats food.
- A life system where Pacman loses lives when caught by ghosts.
- Game over and reset functionality.

The game is built using Java Swing for the GUI, and it includes animations and basic game physics to create an engaging experience.

Libraries Used

- **Java Swing:** For creating the graphical user interface (GUI).
- **AWT (Abstract Window Toolkit):** Used for handling graphics and event listeners.
- **javax.swing.ImageIcon:** For loading and displaying images.
- **java.util.Random:** For randomizing ghost movement.

File Structure

- **App.java:** The main entry point of the game. Initializes the game window and starts the game.
- **pacmangame.java:** Contains the core game logic, including movement, collision detection, rendering, and game loop.
- **Images (wall.png, pacman images, ghost images, etc.):** Used for visual representation of game elements.

How to Run

1. Ensure you have Java installed on your system.

2. Compile the Java files using the following command:

```
javac App.java pacmangame.java
```

3. Run the game with:

```
java App
```

Conclusion

This project demonstrates the use of Java for game development and provides a fun and interactive Pacman game. It helps in understanding core programming concepts such as object-oriented design, event handling, and game loops.

```
# pacman
```

```
# pacman_game
```