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Functional Requirements for Pacman

1. Draw Pacman on the screen.
2. Move Pacman on the screen.
3. Pacman animation when he's moving
4. Integrate player input through the controller or keyboard which will decide which direction the Pacman will be moved, this will also check if the direction is open, i.e. not moving through the wall.
5. Draw points scattered across the map
6. When Pacman hit a point, delete that point and increment the score. When Pacman hit a ghost, he die
7. Make the Big Point powerup system (when it is eaten, Pacman can eat ghost)
8. Make a life system. When Pacman dies, a life is taken, Pacman then respawns until 0 remains.
9. Create various sounds for the game (ie deathsound, background sound, sound when a point is eaten, and powerup sound)
10. Implement the incremental difficulty (ghosts escape their cage over time, ghosts move faster after lvl.
11. Draw the game.
12. Draw game beat scoreboard to display score
13. Implement a tracker for time taken, the final score, ghost eaten, number of death that will be display in the game beat scoreboard
14. Implement next game feature, when all point has been eaten, switch to the next map
15. Ghosts are drawn on the screen.
16. Ghosts move towards pacman.
17. Ghosts have animations when moving.
18. Ghosts have AI that tries to cut the player off.
19. Draw a moving cherry that increases score when eating.
20. After Pacman dies the game board respawns with all points replaced
21. When all ghosts are eaten the powerup mode should instantly end
22. Implement leaderboard when the game is beat so player can register their time beat and point goten
23. Add a main menu that allows players to either play the game or view the leaderboard
24. After the 3rd level add a secret ghost that is twice as fast and goes through walls.
25. Add teleporters to the left and right side of the screen.

Non-Functional Requirements

1. The main game should draw at an average frames per second of 120.
2. The game should work on Windows, Linux, and Mac.
3. The input latency should be less than 5 ms.

4. All game files should take up less than 5 Gigabytes.
5. There should be no spelling errors in game text.