

Graph Based Map Design (50 POINTS)

- Graph based Map design (10 points) : Basic implementation
- Detailed design (20 points) : Each node accurately represents game elements (turn, straight path, obstacle, powerup)
- Creative element (20 points): Innovative use of graph elements to enhance the game map.

Path Finding (20 Points):

- Implementation of Shortest path algorithm (20 points): (Dijkstra's) and highlighting the shortest path when the user is in automatic mode.

Game mechanics (40 points) :

- Control System (20 points): keyboard controls response left, right, up, down .
- Player Interaction (30 points) :Engaging and user –friendly gameplay experience.

Scoring System: (30 points)

- Fair point system based on time, distance and obstacles and power ups .
- Score should be stored in file and previous score should be displayed on screen when required with player name.
- Leader board Implementation: Efficient use of data structures binary tree/heap for score comparison.

User friendly Menu option (10 points).

- Manual
- Automatic
- Resume

Obstacle /power up placement (30 points)

- Obstacles and power ups should be maintained in queue (as node references/names) and would be random at the start of each new game.

Documentation (20 points)