

| Feature | Sub-Feature | Marks | Criteria | Obtained Marks |
|---|-------------------------------------|-------|--|----------------|
| 1. Route Data Representation (20) | Data Parsing and Graph Construction | 10 | Parsing data into graph (5), proper representation of vertices/edges (5). | |
| | Graphics Implementation | 10 | Visualization of nodes/edges (5), tooltips displaying routes details (5). | |
| 2. Route Booking Feature (25) | Feature Implementation | 15 | Direct and connecting route display (10), input handling (5). | |
| | Graphics Implementation | 10 | Highlighting routes in the graph (5), visualizing layover feasibility (5). | |
| 3. Shortest and Cheapest Route Finder (35) | Algorithm Implementation | 25 | Dijkstra's/A* implementation w.r.t time (10), Dijkstra's/A* implementation w.r.t cost (10), Correct path computation (5) | |
| | Graphics Implementation | 10 | Highlighting optimal routes (5), clarity of evaluated/non-evaluated nodes (5). | |
| 4. Custom Route Paths and Preferences (10) | Feature Implementation | 5 | Filtering routes based on user preferences (5) | |
| | Graphics Implementation | 5 | Marking preferred ports visually (3), highlighting recalculated paths (2). | |
| 5. Layover Management with Queue (20) | Feature Implementation | 15 | Smooth processing of layovers (5), smooth connecting route transitions (5). accurate data structure-based layover calculation (5). | |
| | Graphics Implementation | 5 | Visualizing layovers with dashed lines (3), layover information display (2). | |
| 6. Advanced Route Generation (20) | Feature Implementation | 15 | Track of a multi-leg journeys (10), interactive path adjustments (5). | |
| | Graphics Implementation | 5 | Visualization of linked list with arrows (3), user-friendly path management (2). | |

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| 7. Graphical Query & Subgraph Generation (20) | Feature Implementation | 15 | Correct subgraph generation (10), effective filtering of ports/routes based on queries (5). | |
| | Graphics Implementation | 5 | Displaying active routes clearly (3), fading irrelevant nodes (2). | |
| 8. Usage of Appropriate Data Structures (15) | Data Structures Evaluation | 15 | Proper use of graphs for route data (5), queues or any other structure for layover management (5), linked lists or others for multi-leg paths (5). | |
| 9. Presentation and Demo Quality (15) | Functionality and Clarity | 10 | Demonstration of full functionality without bugs (10). | |
| | Visual and Usability Appeal | 5 | Clear interface and usability (5). | |
| 10. GPT Prompts (5) | Effective Prompt Engineering | 5 | Smart Prompts SFML/Backend Implementation | |
| 10. Bonus (5) | | 5 | Any creativity other than the required functionality | |

Total Marks: 185 excluding Bonus