DESTINA- An Indoor Navigation System for Effortless and Accurate Wayfinding.

ABSTRACT

Destina- is a web-based solution for Indoor navigation system designed to assist users in navigating public places such as malls, hospitals, airports, railway stations, and universities. Identifying a specific destination can often be challenging and time-consuming in environments with multiple locations. Destina addresses these challenges by providing an efficient navigation system that takes the user's current location as the starting point and their desired destination as input. It then generates a detailed 2D route map, highlighting the shortest and most convenient path. This system enhances user experience and saves valuable time by simplifying navigation with complex indoor spaces. The System utilizes advanced pathfinding algorithms to determine the shortest and most efficient route between the source and destination. Dijkstra's algorithm is employed for finding the shortest path in weighted graphs, ensuring accuracy and reliability, while the A* algorithm enhances real-time navigation efficiency in large indoor environments. JSON will be used for storing and retrieving coordinates and predefined paths within the indoor map, enabling seamless mapping, real-time path calculations, and dynamic route adjustments based on user input. By leveraging advanced algorithms and interactive mapping, Destina ensures precise and timely guidance, enhancing the overall navigation experience.

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