Assignment : 01

Q. Define a problem statement & give a brief Executive Summary snapshot, Project Description & Project scope :-

**Executive summary snapshot** ⟹

- The normal bus tracking problem involves efficiently monitoring and managing bus fleets to ensure timely services and improve passenger experiences. This aims to implement a GPS-based bus tracking system that enhances real-time visibility of bus locations, optimizes route management, & provides accurate arrival information to passengers.

**Project Description** ⟹

- It involves the development & deployment of a bus tracking system utilizing GPS technology & mobile applications.

- GPS Hardware = Installation of GPS devices on buses to collect real time location data.

- Software platform = A web-based interface for transit authorities to monitor bus locations, & a mobile app for passengers to track buses & receive notification.

- Data Analytics = Implementing algorithms to analyze route efficiency, delays & ridership patterns.

**Project scope** ⟹

- System Design & Development = Develop a user-friendly interface for transit authorities

& passengers.

- Design the backend system for data collection, storage, & processing.

- GPS Hardware Integration = select & install GPS devices on all buses within the fleet.

- Mobile Application Development = Create an application for passengers that provides real-time tracking, notifications & route information.

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