EMERGENCY VEHICLES MANAGEMENT (QUEUE)

BY Harshada Choudhary

# DATA STRUCTURE USED

* Graphs
* Queues
* Linked list

# USES :-

1. Route Optimization : Provides real-time traffic updates to find the fastest routes.
2. Dispatch Efficiency : Automates the assignment of vehicles based on location, availability, and type of emergency.
3. Real-Time Monitoring : Tracks vehicle locations and status for effective management.
4. Vehicle Maintenance : Ensures timely servicing and repairs to maintain readiness.
5. Communication : Facilitates clear communication between dispatchers and vehicle operators during emergencies.These systems improve response times, resource allocation, and overall emergency preparedness.

# APPLICATION :-

* Applications of Emergency Vehicle Management include:
* 1. Route Planning : Optimizes paths for quicker response.
* 2. Automated Dispatch : Assigns vehicles based on location and need.
* 3. Traffic Signal Control : Allows priority at intersections.
* 4. Fleet Tracking : Monitors vehicle locations and status.
* 5. Maintenance Scheduling : Ensures vehicles are always ready.
* 6. Real-time Communication : Keeps dispatch and responders connected.These systems enhance emergency response efficiency and safety.

# CONCLUSION :-

• Emergency Vehicle Management improves response times, resource allocation, and operational efficiency by optimizing routes, automating dispatch, and maintaining real-time communication. It enhances public safety by ensuring that emergency vehicles are always ready and able to reach incidents as quickly and safely as possible.

# Thank you