

SMART INDIA HACKATHON 2024

NAVSMART

PS NO :-SIH1612

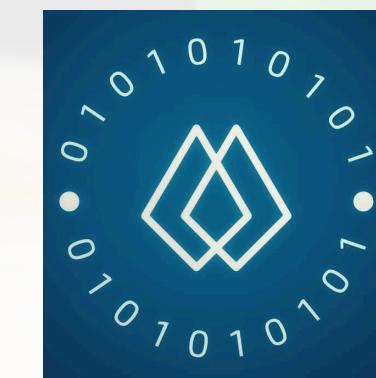
Organisation:- **Government of NCT of Delhi**

Problem Statement Title:-

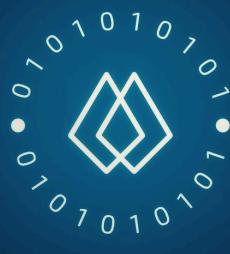
Automated bus scheduling and route management system for Delhi transport corporation

Theme:- **SMART VEHICLES**

PS Category:- **SOFTWARE**



BYTE KNIGHTZ



NAVSMART

PROBLEM

The DTC, with **31,000 employees**, has used outdated **PEN-AND-PAPER** methods since 1971 to manage the world's largest fleet of **3,300 CNG buses** and India's largest fleet of **800 electric buses**. Modernisation is needed to improve efficiency...

Customers

Booking System

Scan & Book, Book in Advance

Real-Time Monitoring

Giving live update of **location and time** of reaching location. And During an emergency Driver can instantly mark the location using GPS.

Feedback Mechanism

Scan the QR or use website and provide feedback of your journey, via **text, voice, pre set input**

ALSO :-

SOS Alerts

Weather system can send alerts about dangerous weather conditions like heavy rain, or fog

SOLUTION

CHAT BOT

REAL TIME GUIDE

Staff

Crew Scheduling

SMART SCHEDULING TOOL (SST) to allocate crew and vehicles based on demand and operational needs.

Advanced Route Planning

Overlapping tool (OT) to detect the overlapping of old routes with new routes AI-driven optimization adjusts routes based on real-time traffic and demand,

Automated Reporting and Alerts:

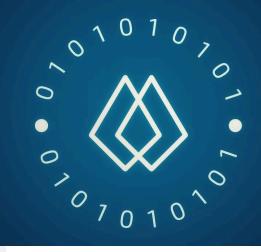
Software automates reports and sends alerts for maintenance, fuel use, and operations.

Cost Management Tools

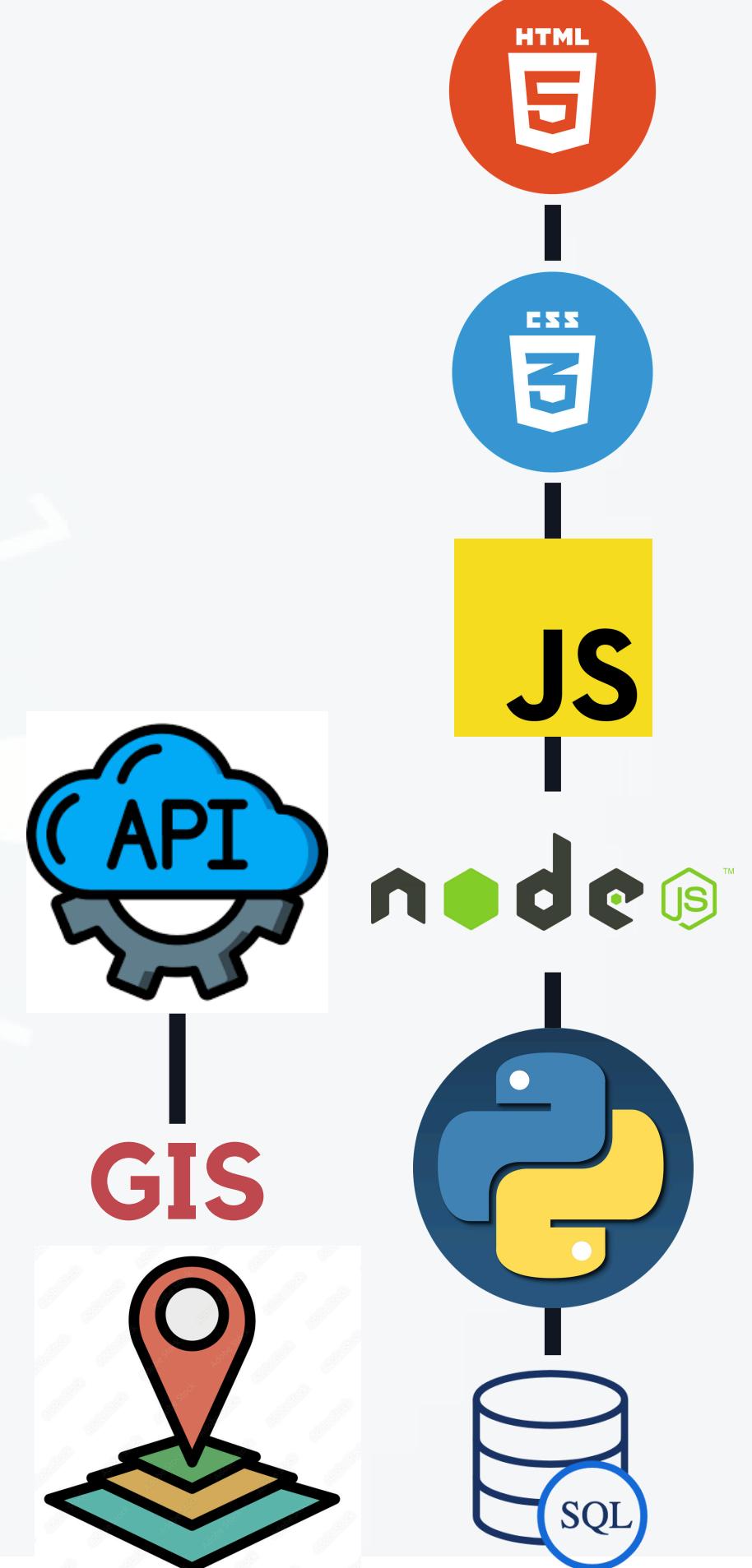
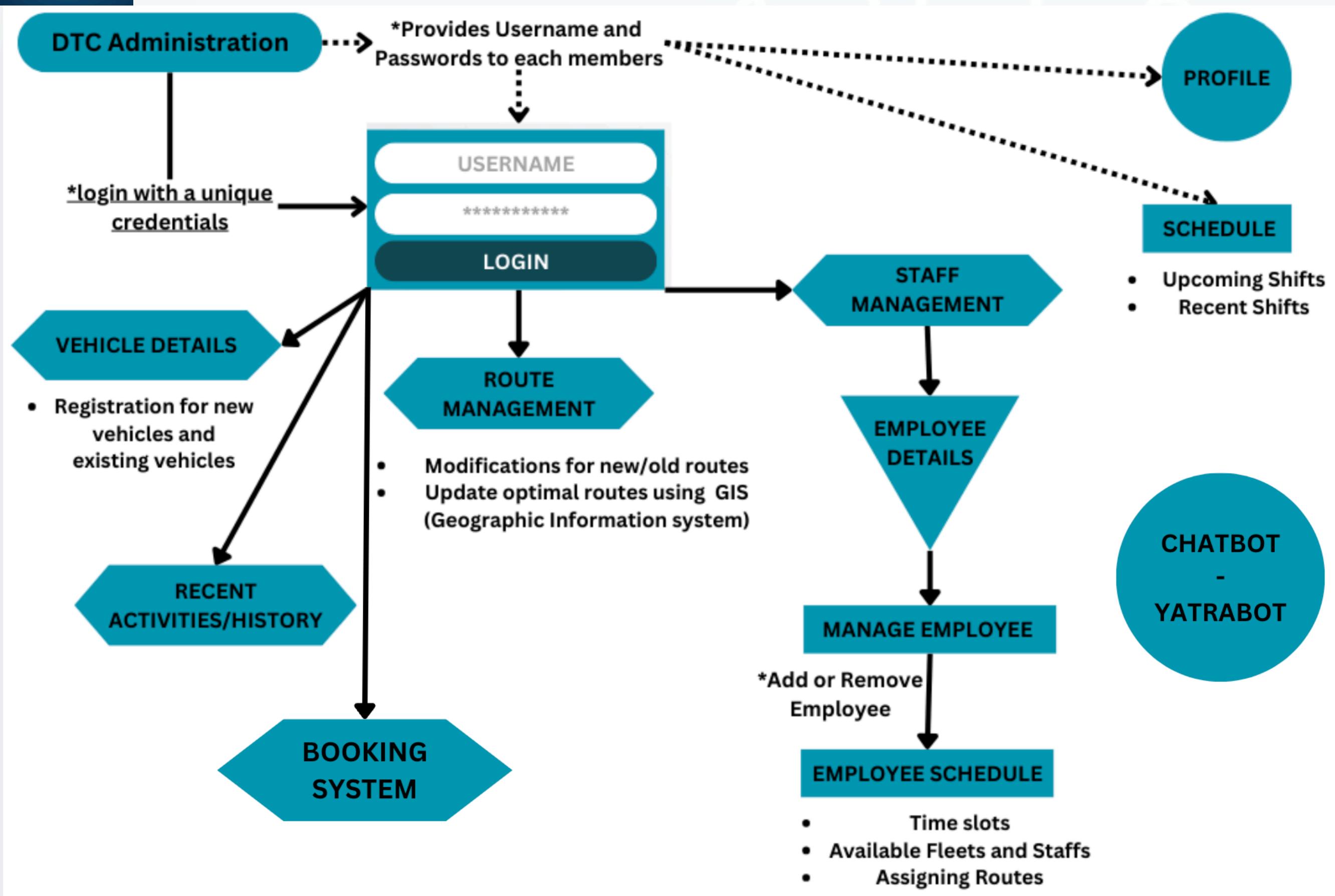
Track fuel, allocate costs, and manage budgets to optimize expenses and boost profitability.

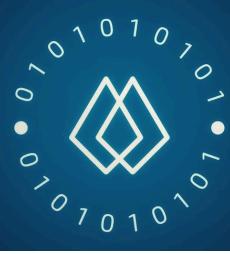
Geofencing Sets Area

Specific speed and route limits for safety and compliance.



TECHNICAL APPROACH





FEASIBILITY

Transferring data from a manual system to the data base can lead to
› Human error
› Inconsistencies in data formats and
› The time-consuming nature of manual entry.
leading to inefficiencies and unreliable data on the website, which can negatively impact decision-making and user experience.

Streamlining the Process: Mobile number verification simplified and speeds up the data transfer process, making it more efficient and reliable.

LIABILITY

Ensuring Data Accuracy: Users confirm their entries via mobile number verification, reducing the risk of errors and ensuring that the data transferred is correct.

Learning Curve : Users may struggle with new features and interfaces, requiring time and effort to become proficient.

Offer Training Sessions Provide hands-on training to help users learn the app's features
Create User Guides: Develop simple, easy-to-follow manuals or video tutorials.

TRANSFORMING “53” YEARS SYSTEM

What Sets Us Apart

This **transition** supports the vision of **Digital India**, contributing to a smarter, more efficient transportation system that empowers both commuters and administrators with cutting-edge technology.





Reduced
paper
consumption.



Increased accessibility

Lower
Carbon



Cost Savings



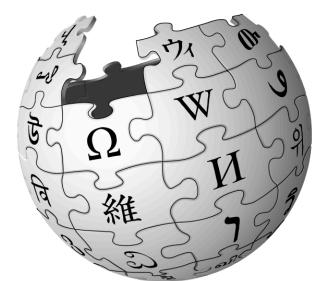
Vehicle
Management



Enhanced Quality of Life : Simplifies daily tasks, improves access to information, and supports a more streamlined workflow, leading to increased satisfaction and well-being for users.

Positive Environmental Contribution: Supports eco-friendly practices, reduces waste and carbon emissions, and promotes sustainability, contributing to a healthier planet.

References



WIKIPEDIA
The Free Encyclopedia

Thank You !

