Project Title :Traffic Management

PHASE 1 : Project Definition and Design Thinking

Problem :

In a traffic condition there are many problem arise there is delay occur between the traffic so the vehicles use fuel and also it increases air pollution.

So we need to real time traffic data using IoT sensors by collects the data of vehicle counts , speed and flow pattern. IOT can analyse best route and predict the maintenance.

Project Definition:

The project involves setting up IoT devices to analyse how many vehicles in a particular place and analyse the speed of vehicle while travelling so we need to prefer the smart traffic lights.

Design Thinking:

1. Project Objectives :
   i) It measures speed of vehicles and vehicles count.
   ii) Sent data to the internet for analysis.
   iii) Give real time information about traffic management.

2) IoT Devices designs :
   a) Sensors that detect things like vehicle counts. The sensors like Infrared and Radar sensors.
   b) Select a microcontroller , like Raspberry pi or Arduino .Ensure it has enough input pins for sensors and supports the chosen communication method.

3) Data sharing Platform :
   a) The online storage where the data is kept and analysed. Using platform like AWS IoT or Google cloud IoT.

4) Integration Approach ;
   a) Depending on the chosen data sharing platform to configure IoT devices to communicate with that platform specifically.
   b) Integration might also involves setting up SDKs or libraries specific to the platform on IoT devices to streamline communication.