

## Project Planning Phase

Team ID	PNT2022TMID52636
Project Name	Signs with smart connectivity for better road safety

### IBM Cloud Services:

Among all the IOT product development stages, cloud services is an important stage for building the best IOT Products. The development team is responsible for building web and mobile-based applications for control of the functionality of products in real-time.

### Open Weather Map:

The Open Weather Map is a service that provides weather data, including current weather data, forecasts, and historical data to the developers of web services and mobile applications. We analysed the behaviour of the metrics for the open weather map model.

### Node-Red:

Node-Red is a programming tool for wiring together hardware devices, API and online services in new and interesting ways. It provides a browser-based editor that makes it easy to wire together flows using the wide range of nodes in the palette that can be deployed to its run time in a single-click.

### Python Script:

The primary objective of running python on an IOT device that pops up in mind is grabbing the Arduino UNO from the table. Python is pre-installed in the operating system, and the only objective left is to write the coding script.

### Hardware and Application:

Hardware part consist of sensors and boards. The Navigational sensor provides a precise geo-spatial orientation of the vehicle as well as trends in driving behaviour. The ODAWS Algorithm is used to interpret sensor data and offer real-time notifications to the driver , boosting road safety. Product Hardware Identification is one of the most important parts of IOT product development stages. The development team with great and in-depth knowledge of diverse types of IOT boards, sensors, and connector devices will get a huge success in IOT product development. A traffic signal is used as an instrument device that indicates the road user to act according to the displayed sign. Sensors installed in strategic locations can use IOT technology to collect data on congestion, moving vehicles away from these locations. IOT Big Data solutions can analyse this information, determine alternative routes, and improve traffic signaling to reduce congestion.

**Final Deliverables:**

Our project “Signs with smart connectivity for better road safety” in the domain of internet of things (IOT) will soon prove its potential in vehicle maintenance , navigation, monitoring leading to improve transportation on the given sprint delivery plan by using our followed task and assignments like Arduino UNO, IBM cloud services, Open weather map, Node-red, Python IDLE, And Sensor