**Problem statement:**

The scope of this document is to identify the problem and find solution for parking vehicles in public.

**Design** **thinking**

Project objective:

To help public find free parking space with help of sensors and avoid stress,traffic and time consumption.

Iot sensors:

1) ultrasonic sensor:It is used to detect whether the parking slot is free or not. A ultrasonic sensor is placed

on parking slot and it emits high frequency pulse from trigger pin . In the presence of any vehicles ,the

ultrasonic pulse is bounced back and detected using echo pin. Thus we can find out occupied spaces

.distance=time\*speed/2 formula it used to calculate distance of parked vehicle and sensor.

2)Servo motor:It can be used to control the entry and exit of vehicles.

Real-Time Transit Information Platform: An application which helps drivers to find free and occupied

parking space,with the help of data collected from sensors . In case of paid parking zone,it helps drivers to

book free parking space in advance . Duration of parking can be calculated and drivers can chargers

accordingly.

**Integration** **Approach**:

Ultrasonic sensor is connected with raspberry pi and the information coming from ultrasonic sensor are stored in it.Then , raspberry pi is connected with the mobile app using Bluetooth or network