COLLEGE CODE: 9133

COURSE:Internet of things(IoT)

PHASE2

PROJECT TITLE: smart parking

***TEAM MEMBERS***


**DEEPAK KUMAR**

**HARIHARASUDHAN**

**SUDHARSAN**

**SIVAHARI**

**SUBASH CHANDRA BOSE**

# ALGORITHM OF PARKING SPACE IDENTIFIER

**STEP 1:** Insert the data about the parking area i.e. how many parking spaces available in that particular area

**STEP 2:** The data is stored in our device

**STEP 3:** The sensor in the device calculate the how many vehicles arrival and departure by using sensor

**STEP 4:** Then the device compare the calculations with the user provided data

**STEP 5:** The processed data will be updated to the API from the sensor

**STEP 6:** the peoples can get the space availability information through the app or website

# Requirements

- RASPBERRY PI
- RADAR SENSOR
- A MOBILE APP OR AN WEBSITE

# Working of Radar sensor

- Radar sensor can detect the number of vehicle arriving and depaturing by sending rays from the entrance of the parking area

- The radar sensor is connected to the Raspberry Pi via GPIO pins.

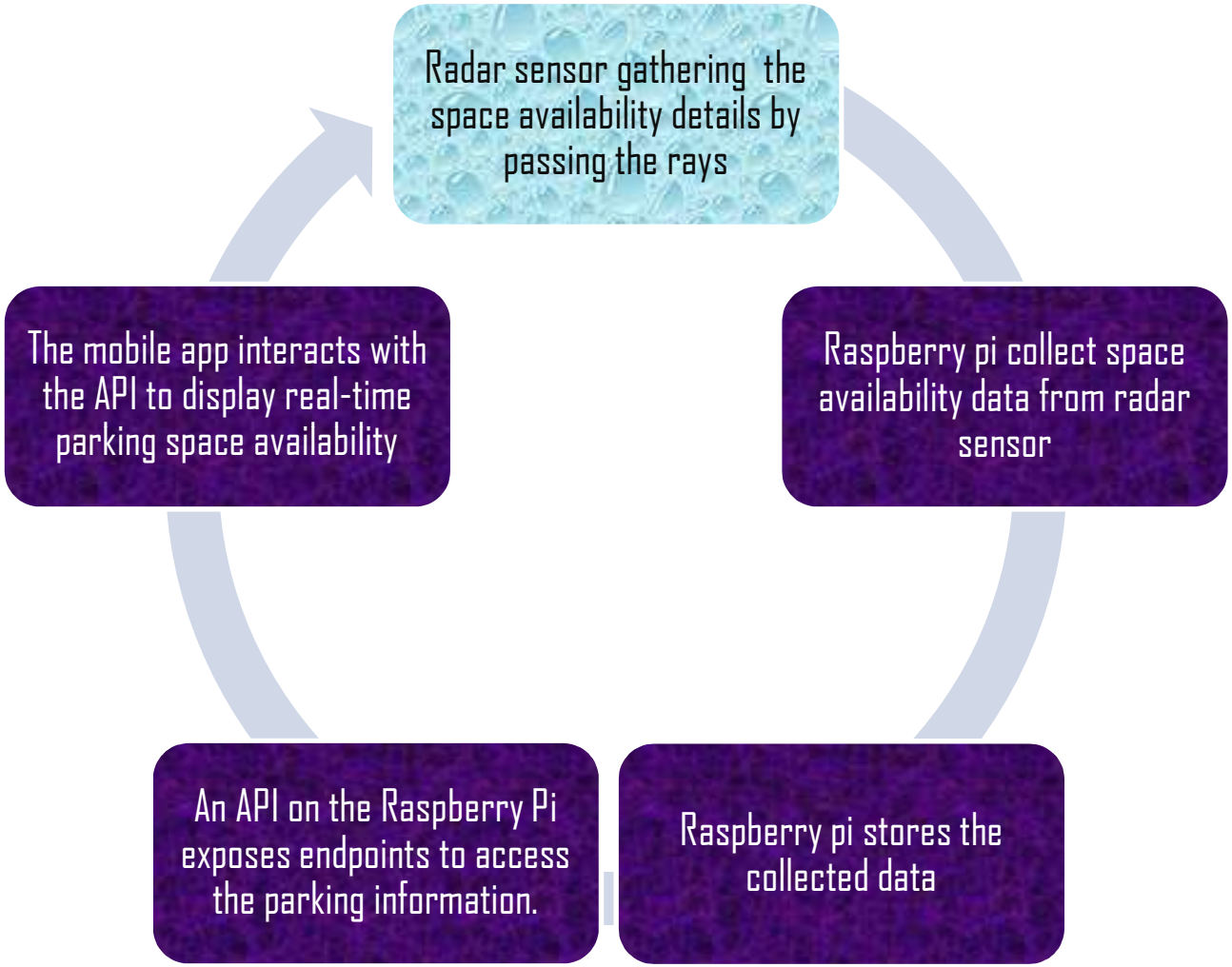
# Working of Raspberry Pi

- Connecting the radar sensor to the Raspberry Pi following the sensor's datasheet and GPIO pinout.
- Installing necessary software libraries and drivers for the radar sensor.
- Developing a Python script to read and process data from the sensor, determining parking space availability.
- Creating a simple API using Flask or Django to expose endpoints for accessing parking information.

# Working of mobile app or website

- Developing a mobile app using phython.
- Implementing API calls to fetch parking space availability data from the Raspberry Pi.
- Designing an intuitive user interface to display real-time parking information.
- Including the features such as user authentication and push notifications for live updates.

# FLOW CHART


Radar sensor gathering the space availability details by passing the rays
Raspberry pi collect space availability data from radar sensor
Raspberry pi stores the collected data
An API on the Raspberry Pi exposes endpoints to access the parking information.
The mobile app interacts with the API to display real-time parking space availability