# Smart parking

• Innovative ideas about project Smart parking

For searching the space for car parking in mobile app I have some idea which can help this case

- First we must construct or plot a environment for free space detection
- For plotting the environment we must place sensors which can help to detect the free space.

#### Required devices:

- ➤ ultraSonic HC-SR04 sensors
- > Arduino Nano
- > Ethernet modules

#### Car Detection:

- ✓ First we want to detect car for knowing that the place is free to park ,so we fit ultraSonic HC-SR04 sensor to detect cars.
- ✓ The two sensors must fit for one parking place because of fault that the sensor made due to moving of car.

✓ For this only we place two sensors which one first detect the car and second verify that the car enters the parking place and placed



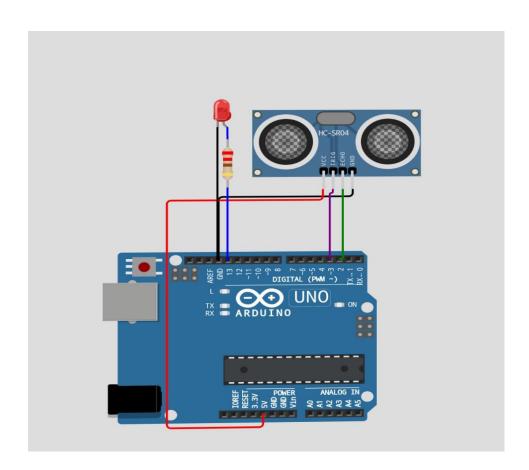
to that space.

✓ We add some extra devices like payment purpose, check in and check out details.

## Sharing collected data from sensors using IOT devices:

- ✓ Connect the sensors to the IOT device Arduino Nano which can helps to transmit the data collected to the server(here i use cloud server)
- ✓ The sensors are connected through wifi to arduino Nano for transmitting the data collected about free space for parking.
- ✓ The IOT devices sends the collected data to the remote server and store these data in that and retrieve the data whenever we want to access.

✓ The Cloud data tramitted to mobile app function which helps to find space through mobile app.

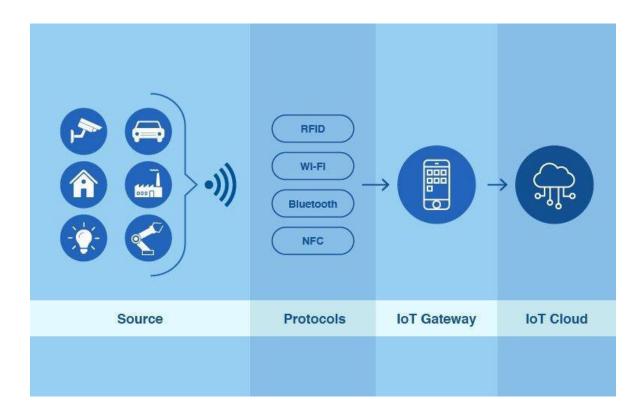


➤ For sending the data we use Ethernet modules — ENC28J60 Ethernet modules to connect with remote server

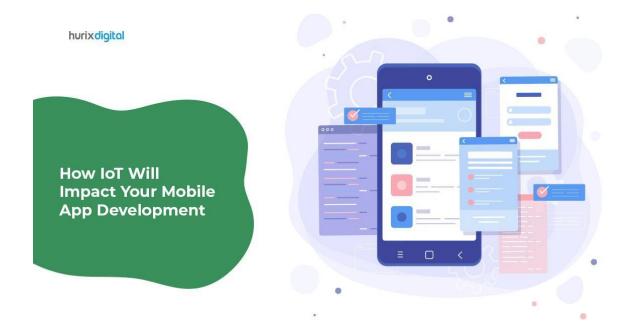
## IOT Mobile App Development:

➤ The mobile applications that I want to design can get processed data through cloud server

➤ The processed data helps to detect the free space and show user where the free slot for parking their cars.



- > We must try hard to develop the app for this use and update the data for all movements.
- ➤ We can use think speak cloud which can helps to merge the application animation with the sensors actual movement .
- > For these process we must need good app development skill and get cloud data accurate for our need



### Conclusion:

As I am made my point for innovative ideas for my project Smart parking,i conclude that it gives clarity about my point of you . Thank you