# **Methodology**

1. **For driver:**

You are driving your car and you want to park, but there is no place to park in so you will open your account on “**Smart Parking Application**” on your mobile to find the nearest vacant garage **-** the vacant one appears with green sign and the occupied is red **-** then you will book it for parking, Once you have booked it there will be a tax taken from your **financial account** then the application will give you the ability to open or shut the garage door. When you arrive to garage you can open it via the application then put your car there and shut the door.

The timer begins from the moment you have booked the garage until you end your booking then automatically the amount of money will be withdrawn according to the time you have spent.

Suppose that your balance is about to expire, So the application sends an alert message to recharge your balance, so you will have three choices:

1. You can get your car out from the garage.
2. You can recharge your balance.
3. You can keep your car in the garage even though your balance is going to expire.

If you chose the third one and your balance expired the garage will be out of your control and you have another 2 choices:

1. The rest of time will be withdrawn when you recharge your balance again.
2. You will bay the rest of money to one of company agents.
3. **For garage owner:**

Garage owner have the ability to make the garage available or not before any one book it through his account. Once any driver has booked the garage the owner will not have a control over his garage until the driver ends his time.

The owner also will have a percentage of money paid from the driver.

1. **The company:**

The company will be the mediator between the driver and the garage owner also it will have a percentage of money paid form the driver.

* **Tools:**

1. **Android application:**
2. **For driver**:

* To book a garage
* To control the door of garage after booking.
* Authenticate driver’s financial account with application to withdraw money from him.
* Authenticate Map to get locations of registered garages.

1. **For garage owner:**

* Control the availability of his garage at any time except when the garage is booked.

1. **IOT**:

* used for controlling the smart garage to open and shut through a Wi-Fi.

1. **Web application:**

* **For Company agents:**

1. **Technical support**: Responsible for any issues that face customers
2. **Administrators:**

* Add or remove functionalities
* Add or remove workers
* Controlling Dashboard like: Orders, products, customers, reports, integrations, statistics and so on.