

### **Roles and Responsibilities of Team Members:**

- 40 - Afza Mukaddam - Team Leader  
The team leader has researched on the scope of the project and who it will appeal to. She also assigned tasks to all the members and created the report and work breakdown structure in order to help the project run smoothly.
- 31 - Saurabh Kanade - Project Manager  
The project manager was responsible for maintaining smooth communication within the team. He was responsible for allocating tasks, taking regular updates, market analysis, budget management, etc. The project manager has also contributed actively in the documentation of the project and the development of the solution architecture.
- 35 - Saurav Kumar - Scrum Master  
The role of the scrum master is to schedule meeting so that our team can discuss the about the project. Also the scrum master prepare's Minutes Of Meeting (MOM) of the meeting scheduled that include attendance, agenda, work done, start and end of meeting and many more.
- 43- Nithin Narayanankutty- Tester  
Tester has researched about the technical aspects, installation and how the physical development of the project will take in the future. Tester has also searched for the parts required to develop and the integration of them with the help of iot. He has mostly worked in the technical aspects of installation of iot regarding it sensor, camera and connection of arduino. He is responsible for finding the exact equipment/parts required for the suitable work and then finding best ways to connect it to arduino.
- 53 - Abhishek Pujari - Designer  
The designer will be looking into the software requirements. Which tool will be used for developing our project. We have decided, for IoT device the coding will be done in python or C++. We are going with b2c, we'll develop the app for our project . We'll discuss with our project owner for development of the app.
- 33 - Pradeep Kewat- Network Engineer  
Network engineer has recorded all the meetings and maintaining the documents on drive, monitored network performance and took the backups of the data. He also researched on network connectivity.

# **Title:- Parking Management System**

## **Project Scope Statement**

### **1. Why the Project was initiated:**

Let's say you have a vehicle and you are traveling in a city like Mumbai, after reaching your desired destination you obviously would want to park it somewhere. During this process you may face the following problems:-

- There is not enough space
- Spaces are sometimes too far away
- Sometimes it costs too much
- Good chance to get a ticket if you park it in a public place
- Many a times we just don't know where to park
- The parking staff may be rude

To overcome these problems and to provide a one-stop solution to all parking related hassles, the project was initiated.

### **2. Key objective of the project:**

The objective of our project is to provide a quick and easy parking solution for both 2-wheeler and 4-wheeler vehicles at the touch of your phone screen. In cities like Mumbai which have major traffic problems, our project will provide verified and real time updated parking spaces. This will also help BMC and traffic police to reduce traffic by avoiding improper parking of vehicles which is one of the major causes for traffic. Through app the user will be able to locate the parking space near them and check for the availability for

### **3. Outline of work:**

Our focus will be on first creating a dummy project based on the requirements and specifications set. The dummy project will be then back tested and any errors and issues will be solved. Finally the working of the dummy project will be shown to the client, any additional requirements will be noted and based on it, we will create the actual working model.

#### **4. Identifying major deliverables:**

- Project Initiation:
  - ☐ Kick-off meeting
  - ☐ Project Charter
  - ☐ Project Repository
- Project Planning:
  - ☐ Project Plan
  - ☐ Requirements Document
  - ☐ Risk and Issues log
  - ☐ Communication Plan
- Project Execution and Control:
  - ☐ Status Report
  - ☐ Meeting Notes
  - ☐ Project Change Request
  - ☐ Final Project Acceptance
- Project Closure:
  - ☐ Project Cost Report
  - ☐ Team Performance Report
  - ☐ Team Reflection Meeting Notes

#### **5. Setting-up key milestones:**

- Dummy project
- Client requirements
- Delivering the project

#### **6. Identifying major constraints:**

- It is basically a network of physical objects that have internet connectivity, and the communication that happen between any one of these objects and other connected systems and devices.
- The app will be developed that will act as an user interface.

- It is mainly dependent on the programming which is loaded into the arduino that will do the identification and analysis.

## **7. List scope exclusions:**

## **8. Obtaining sign-offs:**

Requiring key stakeholders to sign the project scope statement offers confirmation that they are aware of and understand the contents of the scope. This helps avoid miscommunication that can lead to rework during or after the project—ultimately saving project managers and organizations frustration, time, and money.

# **Project Synopsis**

**About the Problem:**It is said that finding a good parking space in metro cities like Mumbai for your vehicle is like finding a needle in a haystack. Vehicle owners often suffer due to fewer parking spots and high parking charges.

## **Reason To Chose This Particular Topic**

Let's say you have a vehicle and you are traveling in a city like Mumbai, after reaching your desired destination you obviously would want to park it somewhere. During this process you may face the following problems:-

- There is not enough space

- Spaces are sometimes too far away
- Sometimes it costs too much
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To overcome these problems and to provide a one-stop solution to all parking related hassles, the project was initiated.

## **The Main Objective Of The Project**

The main objective of the project is to ensure that people can park without having to worry about finding a good parking space using the sensor. It reduces a large amount of time and aims for user convenience. It also reduces the risk of finding parking slots in any parking area. It eliminates unwanted travelling which thus reduces car emissions.

## **Scope Of The Project**

- Our project aims to provide an end to end solution to the clients for all their parking hassles.
- Our goal is to revolutionize the parking architecture and help reduce traffic on public roads.

## **Working Methodology**

If a person needs a parking space near their current location they can use our parking system app.

1. Firstly, they need to enter the app and register (For new user) or login through credentials and allow the app access to their location.
2. The app then tracks their location.
3. After successfully locating the location with the help of Google Maps, the app shows a list of parking places near the person's location.
4. These locations are retrieved from the database.
5. Then the app also provides a real time update to the user of whether the parking spaces shown have availability of parking at the present time.
6. This feature is integrated with the help of camera sensors and machine learning.

## **Hardware and Software Used**

- i. Arduino. uno

- i. OV7670 Camera Module(A sensor that can detect the presence of the vehicle)
- ii. Python IDE or C

## **Testing**

In the Testing phase we will install it in our college and see if there is any problem regarding the camera,sensors or anything related to connection.

## **Limitations Of The Proposed System**

- Security and privacy issues
- Internet and power connectivity dependence
- Technical complexity

## **Contribution**

- Our project will help the clients to find empty parking spaces near their current location.
- It will help the traffic police in efficient management of traffic.
- It will improve the overall image of the campus/road by organizing the parking of vehicles.

# *Software engineering Project*

## Minutes of Meeting

Meeting Location: CS lab K.C College

Recorded By: Saurav Kumar

### 1 Attendance

Name	Title	Roll Number	Attendance status:
Saurav Kumar	Scrum Master	35	Present in all meeting
Nitin Narayankutty	Tester/Quality Assurance Engineer	43	Present in all meeting
Afza Mukaddam	Team Leader	40	Present in all meeting

Saurabh Kanade	Project Manager/Solution Architecture	31	Present in all meeting
Abhishek Pujari	Designer	53	Present in all meeting
Pradeep Kewat	Network Engineer	33	Present in all meeting

## 2 Meeting Location

Computer Science Lab, K C College, Churchgate-400020

AND Online

Link:

<https://us04web.zoom.us/j/4772677762?pwd=K0RXNkRJblpObjNHb1NnL0UyV1F0dz09>

## 3 Minutes of meeting all the details:



MEETING DATE	MEETING START	AGENDA	MEETING END	ATTENDANCE	MEETING LOCATION
02/08/22	1:15 PM	Finding relevant topic for the project	1:45 pm	All were present	K C College CS LAB
10/08/22	2:10 pm	Finding information on Gas leakage system	2:35 pm	All were present	K C College CS LAB
25/08/22	12:20 pm	Gathering tools for the project	12:40 pm	All were present	K C College CS LAB
04/09/22	1:25 pm	Finding new topic for project	1:40 pm	All were present	K C College CS LAB
08/10/22	6:00 pm	Finding relevant language and platform	6:25 pm	All were present	Online

		for our project			
09/10/22	12:55 pm	Discussion on documentation of project	1:15 pm	All were present	Online

## 4 Decisions Made

- To find relevant information coding application/platform required for the project.
- Learning Machine Learning for our project

## 5 AGENDA OF NEXT MEETING

- Researching on the topic
- Gathering information and ideas to add

## 6 LEARNING OUTCOME

- Helps in placement interview
- Gaining experience

## 7 CHALLENGES

- Facing difficulty to learn machine learning.

Scrum  
Product Owner

## **minutes of Meeting with project owner**

Meeting Location: GOTO MEETING

Recorded By: Saurav Kumar

Name	Title	Roll Number	Attendance status:
Saurav Kumar	Scrum Master	35	Present in all meeting
Nitin Narayankutty	Tester/Quality Assurance Engineer	43	Present in all meeting
Afza Mukaddam	Team Leader	40	Present in all meeting
Saurabh Kanade	Project Manager/Solution Architecture	31	Present in all meeting
Abhishek Pujari	Designer	53	Present in all meeting

Pradeep Kewat	Network Engineer	33	Present in all meeting
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## 1 Attendance

### Meeting Location

GoTo meeting application scheduled by AJIT SIR.

Link: <https://meet.goto.com/768538021>

## 2 Minutes of meeting all the details:

MEETING DATE	MEETING START	AGENDA	MEETING END	ATTENDANCE	MEETING LOCATION
06/08/22	1:00 PM	Presenting PPT of topic for approval	2:30 pm	All were present	Online
06/10/22	5:00 pm	Presenting PPT of	5:50 pm	All were present	Online

		topic for approval			
25/08/22	12:00 pm	Presenting PPT of topic for approval	12:40 pm	All were present	Online

Scrum  
Product Owner