**Mini Project**

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**SYNOPSIS**



**Track My Vehicle**

GPS Tracking Device

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**INTRODUCTION**

**Track My Vehicle** it is a combination of different IOT devices and mobile application which helps user to find its vehicle from anywhere in the world. To track the vehicle user first have to install hardware device in victim’s vehicle and then install Track My Vehicle application and then enter credentials in application after that he/she can easily see your device where it is now.

The data which is showing on our app is real-time data and exact data because our GPS module is directly connected with satellite. Also we have Google Maps in this project by which we can easily create route for our device location and we can also choose which route we have to take and also its traffic conditions on different route.

**Project Link:-** [**https://github.com/harshilgupta-dev/DR.Fit**](https://github.com/harshilgupta-dev/DR.Fit)

**Feasibility of Project**

A feasibility study is a high-level capsule version of the entire System analysis and Design Process. The study begins by classifying the problem defnition. Feasibility is to determine if it’s worth doing. Once an acceptance problem defnition has been generated, the analyst develops a logical model of the system. A search for alternatives is analyzed carefully. There are 3 parts in the feasibility study.

1. Operational Feasibility:- Operational feasibility is the measure of how well a proposed system solves the problems and takes advantage of the opportunities identifed during scope defnition and how it satisfes the requirements identifed in the requirements analysis phase of system development.
2. Technical Feasibility:- This involves questions such as whether the technology needed for the system exists, how difcult it will be to build, and whether the frm has enough experience using that technology.
3. Economical Feasibility:- Establishing the cost-efectiveness of the proposed system i.e. if the benefts do not outweigh the costs then it is not worth going ahead.

**Track My vehicle** is feasible with Android as well as iOS platform, also the minimum requirement of the device to run this application is just starting from Android version 5.0 and quad-core mobile processor,1 GB of RAM. Users can use it anywhere at any time.

**Functional Specification**

* **Objective:** The main objective to build this application is to provide a user a satisfied environment by which he/she can easily detect there vehicle with real-time and exact data . In This project we use Google API which helps user to create exact route device and show necessary information like time to cover distance, speed ,direction, best route to choose, traffic condition on different route. This is improved security systems for vehicles. The latest like GPS are highly useful now a days, this system enables the owner to observe and track his vehicle and find out vehicle movement and its past activities of vehicle.

**Software Specification**

|  |  |
| --- | --- |
| Technology Implemented | Flutter, IOT |
|  |  |
| Language Used | Dart, XML, C++ |
|  |  |
| Database | Firebase, |
|  |  |
| Software | Microsoft Visual Studio Code, Android |
|  | Studio, Arduino IDE |
|  |  |
| Operating System | Android 5.0 or higher |
|  |  |
| Size | ~20MB |
|  |  |
| Storage | ~ 100 MB |
|  |  |

**Hardware Requirements**

|  |  |
| --- | --- |
| Hardware Required | ESP8266,GPS module,Sim900A |
| Processor | 64-bit CPU with at least 4x ARM Cores |
|  |  |
| Operating System | Android 5.0 or higher |
|  |  |
| RAM | 1 GB or higher |
|  |  |
| Storage | 16 GB or higher |
|  |  |
| Maximum Core Speed | 1.5 GHz or higher |
|  |  |

**Future Scope**

We can add new features as and when we require. There is flexibility in all the modules.

1. In the future, we will try to add Geo-fencing.
2. We will work on providing updates so that we can make sure that this project is bug-free.
3. We will try to add get location on calling of user.
4. We will provide various versions of the application in which we will add new features.
5. User to get notification if its vehicle is out of range.
6. We will add things on our application dynamically.
7. We will launch it on WEB as well as the IOS platform.
8. Optimize its space and performance.
9. We can reduce the size of the kit by using GPS+GSM on the same module