APPLICATION FOR MOBILE TRACKING

1. PROBLEM DEFINITION

* The mobile tracking application is a software for android phone which reduces the manual workload for the user inorder to find his/her mobile device.The application is to developd which is required to perform the following function.

1.1 lt must provide the user an admin mode which should obtain the following information from the user

*IMEI,Phone no

*owner identity,GPS

1.2 It must provide the user an investigator mode which can access the details of the admin mode and retrace the current location using details of the admin mode.

phase 1.Client application which will be installed on mobile device

phase 2. Admin application which will be installed on any server or mobile

2.SYSTEM REQUIREMENT SPECIFICATION

2.1.0 INTRODUCTION:

*Purpose of the SRS is to document requirements for mobile tracking application using android device to manage various activities. The main purpose of the system is an important area of a research for emergency as well as for commercial services .Mobile service in ceflular network will provide

several services such as locating stolen mobile,iocating employee, live monitoring, SOS etc..

2.1.1 SCOPE: This system is currently not providing better scheduling and planning also could not track employees and provide reports.A low sized app is installed in GPS enabled android phones of the employees or any field staff which silently work in background and send information.

2.1.2 Definitions, Acronyms and Abbreviations

DBMS- Database Management System.

AAMT- Android Application for Mobile Tracking

2.1.3 References

IEEE standard 830-1998 recommended practice for Software Requirements Specifications-Description.

2.1.4 Overview

2.1.4.1 The SRS contains an analysis of the requirements necessary to he easy design.

2.1.4.2 The overall description provides interface requirements for the android application for mobile tracking, product perspective, hardware interfaces, software interfaces, communication intertace, memory constraints, product functions, user characteristics and other constraints.

2.1.4.3 Succeeding pages illustrate the characteristics of typical naive users accessing the system along with legal and functional constraints enforced that affect android application for mobile tracking in any fashion.

2.2 THE OVERALL DESCRIPTION

2.2.1 Product perspective

2.2.1.1 Hardware interfaces

***Hard disk:** The database connectivity requires a hardware configuration that is on-line. This makes it necessary to have a fast database system running on high rpm hard disk permitting complete data redundancy and back-up systems to support the primary goal of reliability.

*The system must interface with the standard output device, keyboard and mouse to interact with this software.

2.3 Software interfaces

Back End: Database

Front End: Microsoft visua! basic

2.2.1.3 Memory Constraints

*No specitic constraints memory

2.2.1.4 Operations

The software allows three modes of operations

*By entering the IMEl no ,software allows the user to find the stolen mobile.

*By entering the username and password the software allows the user to show the current location.

2.2.2 Product Functions

*Enquire about current location of mobile device.

To erase the data in stolen mobile

*The software validates the authentic user by extracting their user name and password.

2.2.3 User characteristics

2.2.3.1 The intended users of this software need not have specific knowledge as to what is the internal operation of the system. Thus the end user is at a high level of abstraction that allows easier, faster operation and reduces the knowledge requirement of end user.

2.2.3.2 The Product is absolutely user friendly, so the intended users can be the naive users.

2.2.3.3 The product does not expect the user to possess any technical background. Any person who knows to use the mobile can successfully use this product.

2.2.4 Constraints

2.2.4.1 The user has a unique username and password, there are no options to retrieve a password or username in case it is

forgotten or lost hence the user is requited to remember or store the username and password.

2.3 SPECIFIC REQUIREMENTS

2.3.1 Logical Database Requirements

2.3.1.1 The system should contain databases that include all necessary information for the product to function according to the requirements. These include relations such as user details and mobile details.

2.3.1.2 The user details refer to the information such as email id, password,name, phone number and recovery number.

2.3.1.3 The mobile details refer to IMEl number

2.4 FRONT END

In this android application, user can find his email id, phone number, IME! number, last seen. The front end graphics is more user friendly. Every user get all the details of his/her mobile device.

2.5 BACK END

In the database,it stores the user details, mobile details and the GPS

DATA FLOW DIAGRAMS

OF

APPLICATION FOR MOBILE TRACKING

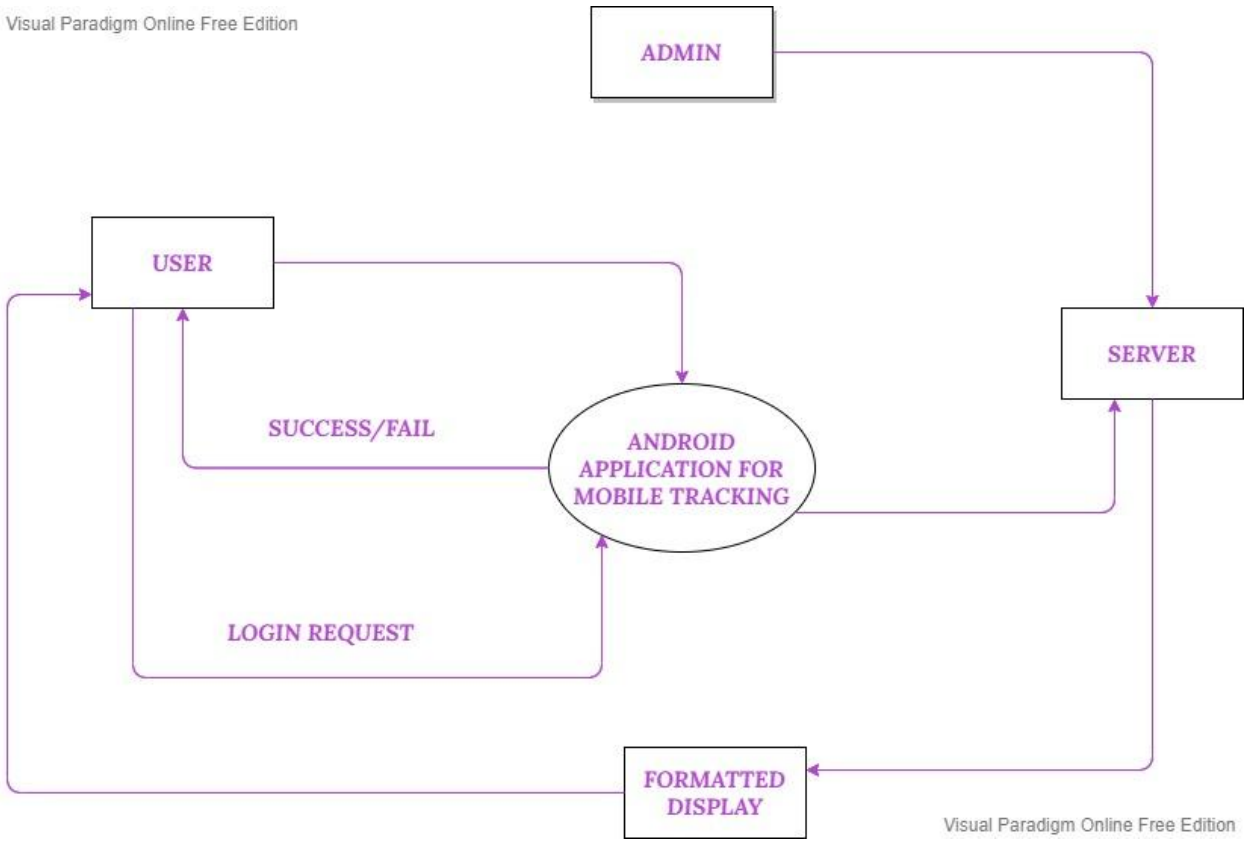
A data flow diagram (DFD) depicts how information flows through a process or system. It shows data inputs, outputs, storage sites, and paths between each destination using predetermined symbols such as rectangles, circles, and arrows, as well as short text labels. Data flowcharts can range from simple, even hand-drawn process overviews to multi-level, in-depth DFDs that go deeper into how data is processed. They can be used to examine a current system or to create a new one.

A DFD, like the best diagrams and charts, can frequently graphically "express" things that are difficult to describe in words, and it can be used by both technical and nontechnical audiences, from developers to CEOs. That is why DFDs have remained so popular over the years.

A data flow diagram can dive into progressively more detail by using levels and layers, zeroing in on a particular piece. DFD levels are numbered 0, 1 or 2, and occasionally go to even Level 3 or beyond. The necessary level of detail depends on the scope of what you are trying to accomplish.

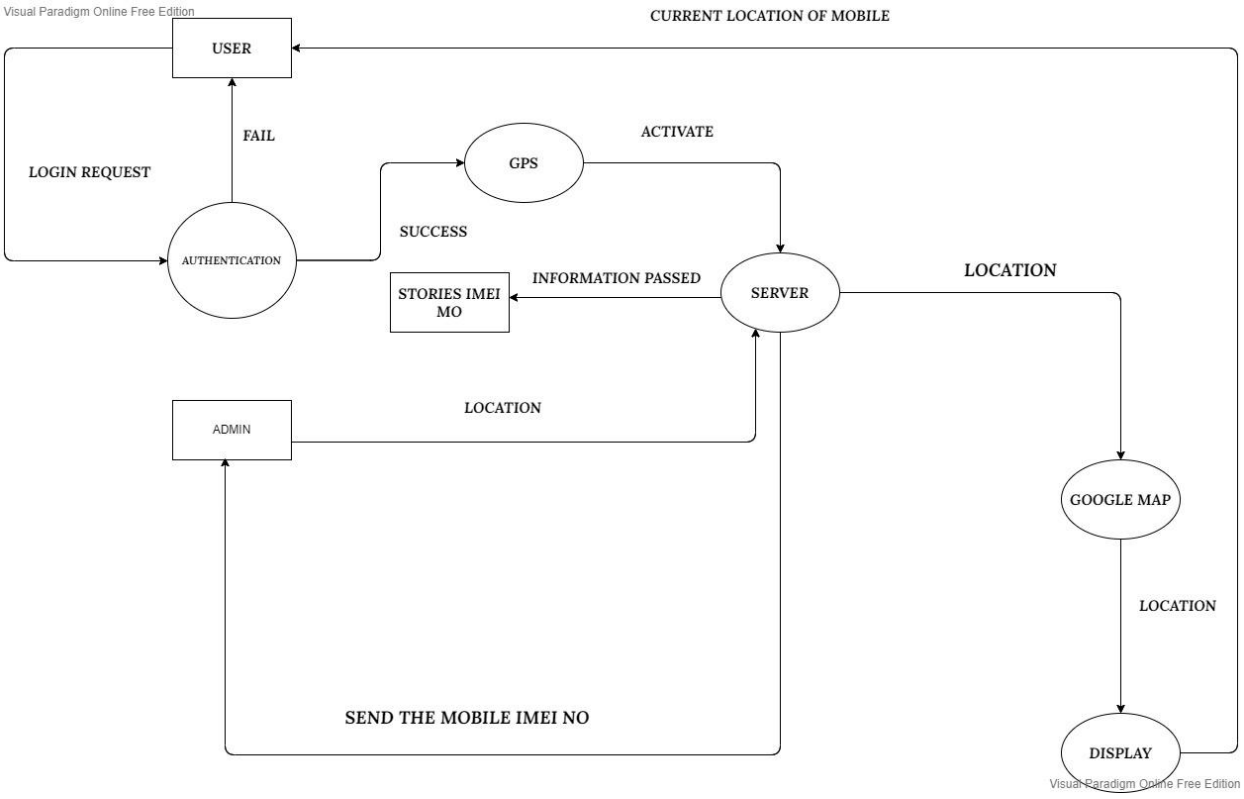
LEVEL 0 DFD

A Context Diagram is another name for a DFD Level 0 diagram. It's a high-level overview of the entire system or process that's being investigated or modeled. It's intended to be a quick peek at the system, displaying it as a single high-level process with its relationships to external entities. Stakeholders, business analysts, data analysts, and developers should be able to understand it simply.



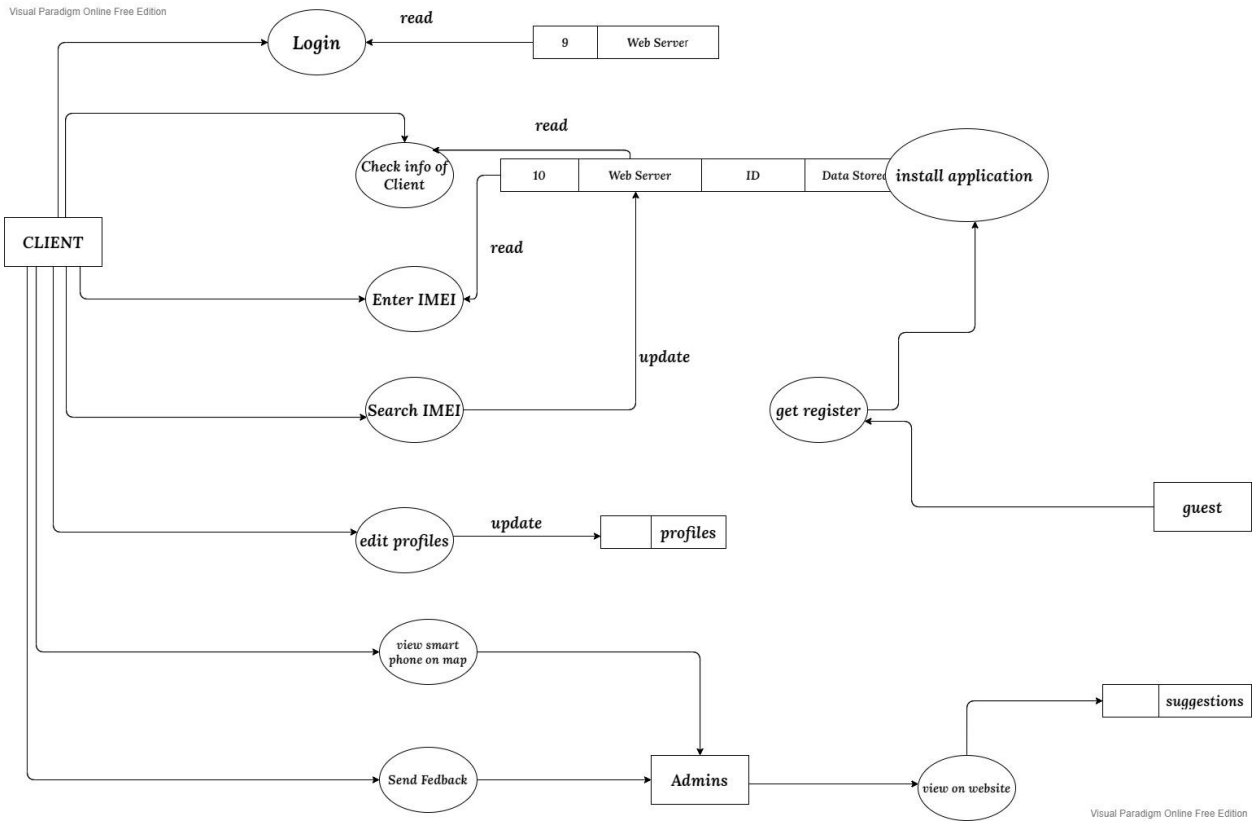
LEVEL 1 DFD

The DFD Level 1 provides a more extensive breakdown of the Context Level Diagram's components. As you break down the high-level process of the Context Diagram into its subprocesses, you'll emphasize the system's main functions.

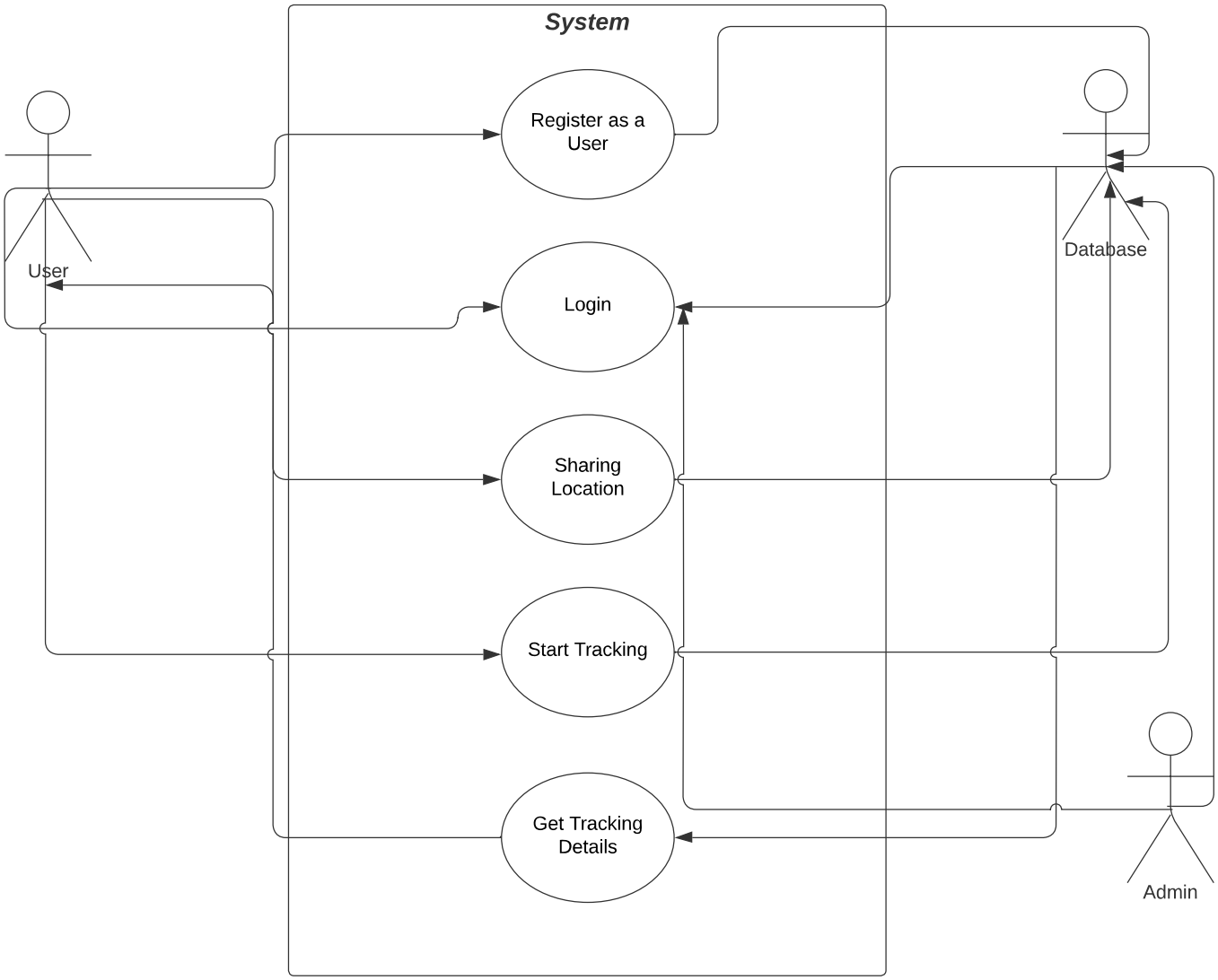


LEVEL 2 DFD

The second level of DFD delves even deeper into the first level's content. To attain the required degree of detail about the system's operation, extra text may be required.



Use case diagram



5. **USE CASE DESCRIPTION**

Sign Up :

The User 2 regester to the application by providing details, new username and password.

Scenario 1:

User 2: Selects Signup option

System: Asks for user details

User 2: Enters details

System: Asks to creates Username and Password

User 2: Creates the Username and Password

System: Checks if username is valid and stores to database

LOGIN :

The user can login to access to the Mobile tracking application by providing registered username and password.

Mainline Sequence (senario 1) :

User 1: Selects login option.

System: Request details of user

User 1: Provides Username and password
System: verifies if user is part of the database and verifies password.

Senario 2:

User 1: Intiates change password.

System: Ask to enter old and new password.

User 1: Enters the old and new password and confirms it. System: Does authentication and new password is regestered to database.

Senario 3:

User 1: Selects forgot password option

System: Asks for registered mobile number or e mail id.

User 1: Enters the mobile number or password

System: Sends OTP

User 1: Enters the OTP

System: Asks to create new password

User 1: Creates the password System: Stores it in database

Sending Position :

User 2: (to be tracked) sends live position to server.

Senario 1:

User 2: If mobile device is online sends the live location

Server: Receives the live location with help of mobile's IMEI number.

Tracking :

User 1 gets the live location of the User 2 through google maps.

System: Asks to enter IMEI number of the mobile to be tracked (User

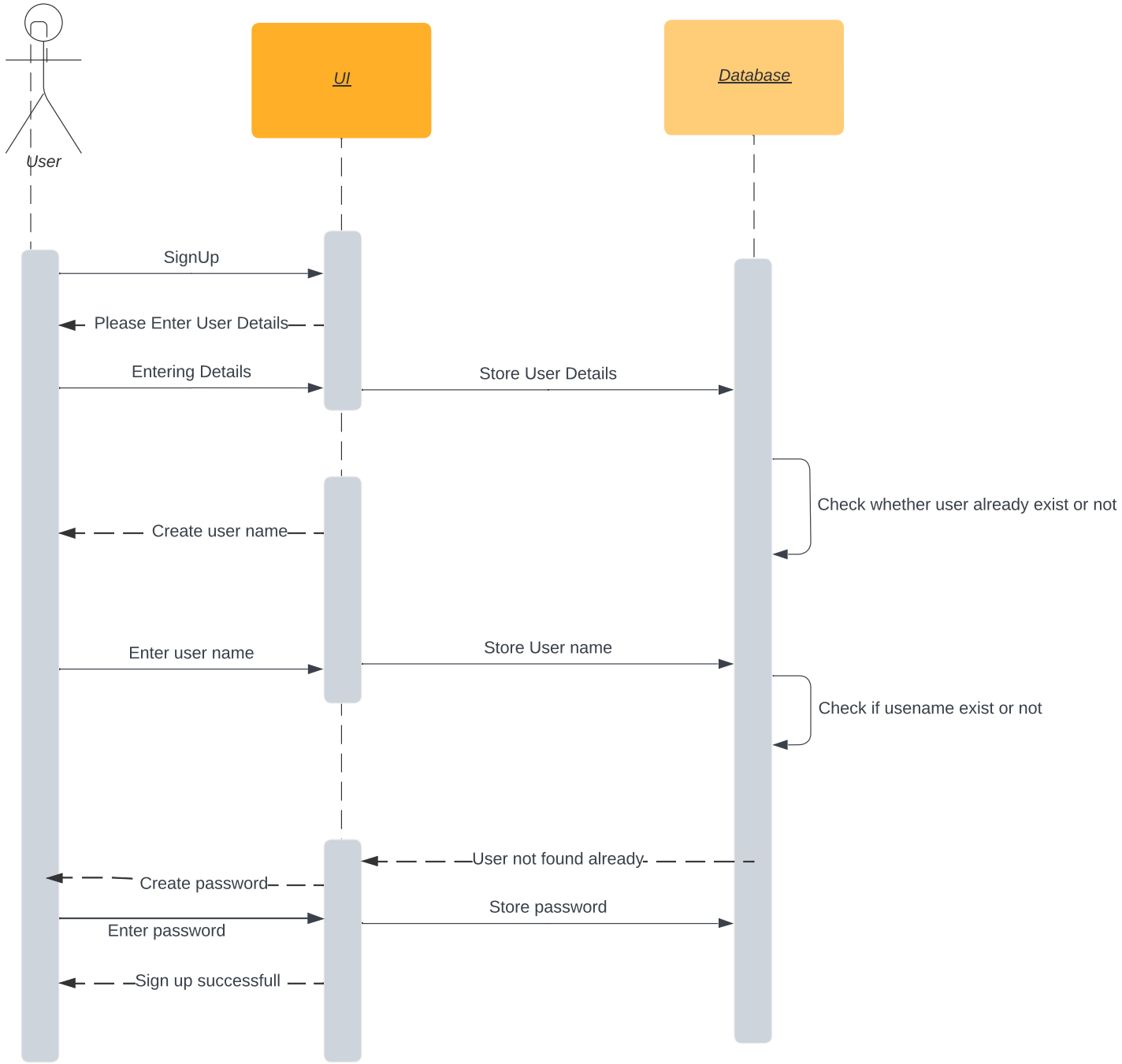
2)

User 1: Enters the IMEI number

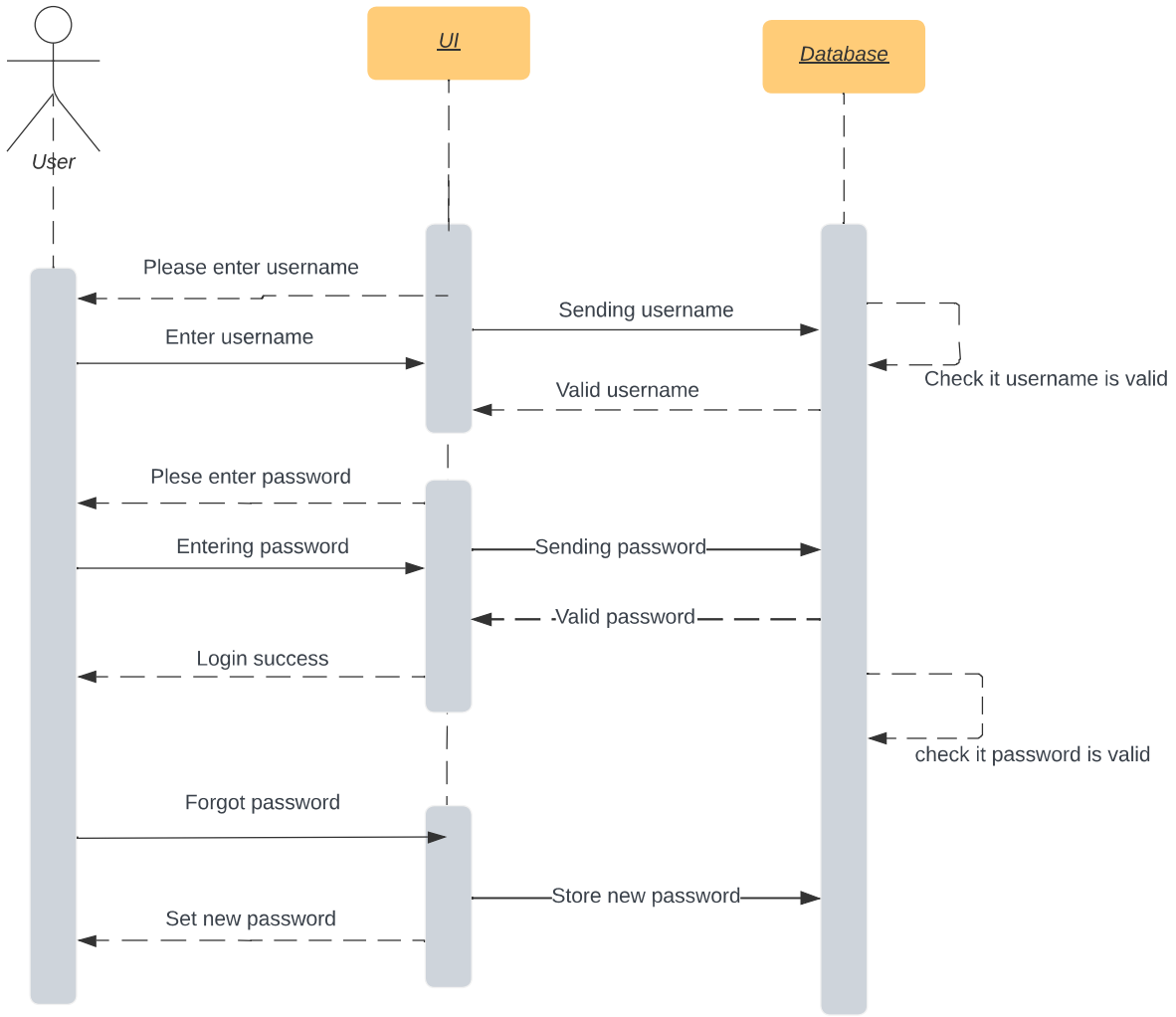
Server: Tracks the mobile (User 2) with help of IMEI number

Server: Sends the live position of the mobile (User 2) through google maps to User 1
User 1: Finally, Gets the live position of mobile (User 2)

Sequence diagram For Registration



Sequential Diagram for Logim



Sequence diagram for Tracking