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# 1.Introduction

## 1.1 Purpose

The purpose of this document is to present a detailed description of the Mobile/Web application. It will explain the purpose and features of the application, The interfaces of the application, What the application will do, The constraints under which it must operate, This document is intended for both the stakeholders and the developers of the system.

## 1.2 Scope

This application will be mainly a mobile application and also will be web. This application will be designed to maximize the connection between the patient, the doctor, the pharmacist and the tracker who follow up with the patient condition, medicine…etc.

More specifically, This application main function is to maximize the connection between the four characters so we minimize the effort of finding the medicine, the effort of keeping track by the doctor or the tracker with the patient medicine time, medicine refill …etc.

## 1.3 Definition

None.

## 1.4 References

None.

## 1.5 Overview

The next chapter is the Overall Description section of this document. It gives an overview of the functionality of the product. It describes the informal requirements and is used to establish a context for the technical requirements specification.

The third chapter, Requirements Specification section, of this document is written primarily for the developers and describes in technical terms the details of the functionality of the product.

Both sections of the document describe the same software product in its entirety.

# 2.General Description

## 2.1 Product Perspective

The idea is new, So there is no previous implementation or system to be updated or maintained. This project aims to provide safety for sick people and show them how much their families care about them. The application will provide supervision from doctors and families to their patients and will help all people to find the nearest doctor, hospital or pharmacy to get help and also the ambulance if the satiation needed.

## 2.2 Product Functions

* Doctor can send prescriptions to the patient using the application.
* Patient could be supervised by his/her tracker.
* The application will set alarms for every medicine time with some details (medicine name, dose …etc.).
* Doctor and tracker get notification in case of the patient didn’t take his/her dose in time.
* When patient get the prescription from the doctor, A notification of nearest pharmacy has the prescription’s medicine/s with the required amount.
* Patient location will be visible to his tracker so he can press “Code Red” button for him.
* A “Code Red” button is an emergency button, If patient isn’t well will send his/her location to nearest hospital send ambulance, send notification to his/her doctor and tracker, send notification to selected friend who lives nearby from the patient.

## 2.3 User Characteristics

* Doctor
  + Send prescriptions to the patients.
  + Keep track with every patient’s status.
  + Can get in touch with patient or patient’s tracker easily.
* Patient
  + Get prescriptions from doctors.
  + Search for medicine he wants.
  + Can get in touch with doctor or his/her tracker easily.
  + Have “Code Red” button for emergency situations.
* Pharmacist
  + Create a profile for the pharmacy (Name, Location ...etc.).
  + Add all medicines he has so is easy for the patient to find his medicine.
* Tracker
  + Keep track with every patient’s status.
  + Can press “Code Red” button for the patient.
  + Can get in touch with patient or patient’s doctor easily.

## 2.4 Constraints

* Online Database works 24/7.
* 64 kbps.
* Clouding.

## 2.5 Assumptions

* Database server.
* License tools.
* Internet connection.

# 3.Specific Requirements

## 3.1 Functional Requirements

* **Register**
  + Description : This function will help the visitor to make account in this app to be followed in his health status and communicate with his/her doctors.
  + Response : Redirect to home page.
  + Purpose :Validate his input.
  + Input : His name, age, location, his Job, profile picture, username and password.
  + Output : If the entered data wasn’t used before to register, he will be registered and redirected to home page. If not, he will be redirected to login page.
* **Login** 
  + Description : This function allow the user to open his account and see his/her notifications, medicine…etc.
  + Response : Redirect to home page.
  + Purpose :Validate his input .
  + Input : Username and password.
  + Output : If entered username and password is correct he will be redirected to home page, If not correct he will not be able to access his account page.
* **Logout**
  + Description : This Function will help user to sign out from his Account.
  + Response : Redirect to login page.
  + Purpose : Sign out from his account.
  + Input : Nothing.
  + Output : Redirected to login page.
* **Get** **Notification**
  + Description : This Function will help patient , patient’s tracker and doctor to have notification about everything happens related to patient situation and his medicine.
  + Response : Redirect to notification page.
  + Purpose :Go to his notifications.
  + Input : Nothing.
  + Output : Redirected notification page.
* **Keep** **Track**
  + Description : This Function will help tracker keep track of the patient.
  + Response : Redirect to login page.
  + Purpose :Go out from his account.
  + Input : Nothing.
  + Output : Redirected to login page.
* **Send** **Prescription**
  + Description : This Function will help the doctor to write patient’s prescription.
  + Response : Redirect to patient page.
  + Purpose : Keep track of his/her patient health.
  + Input : Medicine and its dose.
  + Output : The prescription will be added in the patient page.
* **Edit/Update** **Prescription**
  + Description : This Function will help the doctor to edit/update the patient’s prescription.
  + Response : Redirect to patient page.
  + Purpose : Keep track of his/her patient health.
  + Input : Medicine name and medicine dose.
  + Output : The prescription will be updated or removed from patient page.
* **Book** **an** **Appointment**
  + Description : This Function will help the patient to book an appointment with the doctor to examine him/her.
  + Response : Redirect to patient page.
  + Purpose : Validate the input.
  + Input : Date of next appointment.
  + Output : If date is valid and empty for the doctor an appointment will be set, If date isn’t valid or the doctor’s schedule isn’t empty the system won’t accept the appointment.
* **“Code Red”**
  + Description : This Function will help the patient to get ambulance to his/her location in emergency status(when pressed).
  + Response : Redirect to patient page.
  + Purpose : Help the patient.
  + Input : Location.
  + Output : The app will send “Done ” message.
* **Search**
  + Description : This Function will help all user to find doctors, hospitals or hospitals.
  + Response : Redirect to is result page.
  + Purpose : Validate the input.
  + Input : Search filter.
  + Output : List of Results from the search.
* **Add** **Patient**
  + Description : This Function will help doctor to add patient to keep track with him/her.
  + Response : Redirect to patients page.
  + Purpose : Validate the input.
  + Input : Username.
  + Output : If the username has found the app will send notification to patient to accept the doctor or not and if not will display “Not Found”.
* **Add** **Doctor**
  + Description : This Function will help patient add his/her doctor to keep track with him/her.
  + Response : Redirect to Doctors page.
  + Purpose : Validate the input.
  + Input : Username.
  + Output : If the username has found the app will send notification to the doctor to accept this patient and if not will display “Not Found”.
* **Add** **Tracker**
  + Description : This Function will help patient to add his supervisor to keep track with him.
  + Response : Redirect to Supervisors page.
  + Purpose : Validate the input.
  + Input : Username.
  + Output : If the username has found the app will send notification to the tracker to accept this patient & keep track with him and if not will display “Not Found”.
* **Rate** **Doctor**
  + Description : This Function will help patient and supervisor to rate the doctor.
  + Response : Redirect to homepage page.
  + Purpose : Help him to rate his doctor to help other patient to go to good doctor.
  + Input : Rate.
  + Output : If the rate was saved the app will send “Done” and If not will send “Failed”.
* **Take** **Medicine**
  + Description : This Function will help patient to take his medicine in time and send notification to his/her doctorand tracker.
  + Response : Redirect to homepage page.
  + Purpose : Help him to let his/her doctor and tracker know that he took the medicine in time.
  + Input : Confirmation.
  + Output : The app will send Notification to his/her doctor and tracker.
* **Chat**
  + Description : This Function will help all the four character get in touch with each other.
  + Response : Redirect to chat page.
  + Purpose : Help them to get in touch with each other.
  + Input : Message.
  + Output : If the message was sent, the app will send “Done” and if not will send “Error” .
* **Add** **medicine**
  + Description : This Function will help the pharmacist to add the medicines he has.
  + Response : Redirect to pharmacy page.
  + Purpose : Validate the input.
  + Input : Medicine name, price, quantity.
  + Output : The medicine will be added in the pharmacy profile if the data was valid.

## 3.2 Non-Functional Requirements

* **Legal**
  + This app can’t take idea or tools from other app. this app save your privacy from other people and make you private with your friends and tracker.
* **Security**
  + Our developers work hard and a lot to make high quality of protection for this app to help you to use this app and be comfortably. This app is made for you to keep track of your health with your doctor and tracker with total privacy.
* **Performance**
  + This company ensures to you easy handling and fast performance. Our developers mainly mission is to improve the performance of the app.
* **Maintenance** 
  + Our software engineers work on testing and debugging this app and we works every time to maintain this app and help to have our user satisfication.

## 3.3 Hardware Requirements

This app will be available first for android devices the IOS devices, It won’t need to much power to perform well, So a mid-range smart-phone will do just fine.

## 3.4 Software Requirements

In this app we use database with objects and it could be supported and controlled. Our developers make this app to work in maximum number of platforms.

# 4.Result

* 1. The problems of current system
* More than one function can do the same functionality.
* Could be a complex application for old people (our age target).
* Needs a lot of resources when “Code Red“ is activated (in need only).
* The application have a lot of functions and that maybe confuse some users (like excel).
* The application must be compatible with many different operating system and compatible with multicable versions of same operating system.
  1. The solution of system problems
* We will make every function have a special job to do.
* We will try to simplify and make tutorial for our application.
* Will try to use less resource in the “Code Red“.
* Will explain every function in our program to make it most useful for users.
* Our developer will do their best to make it able to work on every platform.

# 5.Appindices

## 5.1 Glossary

* **The Tracker :** The person Who Keep up with the patient situation, Usually is a relative of the patient. e.g, The tracker would be the parents if the patient is their child.
* **“Code Red” :** This is an emergency button which would send the patient location to the hospital to send an ambulance, send a notification to the patient’s doctor/tracker, call a pre-selected number of near person asking for help.

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