CovidTrack Application

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Contents

1 Introduction

1.1 Purpose of this document

the purpose of this Software Requirements Specification document is to provide clear information about Covid-19 virus and actionable guidance for safe operations through prevention, Tracking and control of Covid-19 spread in the world.This application will help and encourage users to become advocates for disease prevention and control at home, in schools, and in their community.

1.2 Scope of this document

Coronavirus [1] is a kind of common virus that causes an infection in your nose, sinuses, or upper throat. Most corona viruses aren't dangerous.In early 2020, after a December 2019 outbreak in China, the World Health Organization identified SARS-CoV-2 as a new type of coronavirus.The outbreak quickly spread around the world.It spreads the same way other corona viruses do, mainly through person-to-person contact. Infections range from mild to deadly.many people are using now days smart phones to be updated by news instead of the television.my application concerns this category of people.users who access the application will be able to know everything about the virus, find out when you've been near other app users who have tested positive for coronavirus, lets you know the level of coronavirus risk near your location, check if you have coronavirus symptoms and see if you need to order a test, keep track of your self-isolation countdown and access relevant advice.

1.3 Overview

My Application shall help users/patients to be aware of the virus, know the symptoms for Covid-19 that have been reported which includes Cough, Sore throat, New loss of smell or taste,..etc. Firstly user sign-in to the system or create a new account in case their information don't exist in the database where the user shall find different types of services. user can either Track when and where you've been near other app users who have tested positive for coronavirus, get alerts about the level of coronavirus risk near the user's location, check if user has coronavirus symptoms, user can order a test if he/she needs to, and keep track of self-isolation countdown and access relevant advice.
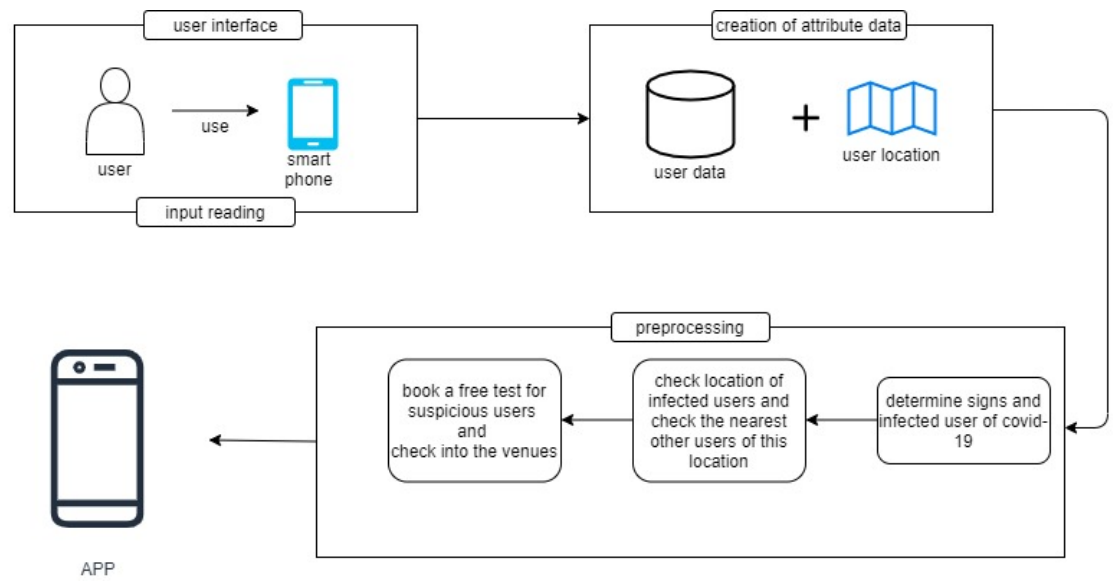
Figure 1: system overview

2 General Description

2.1 Similar System Information

- NHS Covid-19 [2]

- Who Info [3]

2.2 User characteristics

1. user: Must have basic knowledge on how to use android applications or ios applications according to his mobile device.

2.admin: must have full knowledge on how the application is working and the hierarchy of adding or deleting data from the application database.

2.3 User Problem Statement

Many People now days stopped watching tv or reading newspapers and they use mobile phones instead as they are easy to access, news are available all the time online and always updated . This application will be developed to help raise awareness and helps users to overcome this disaster safely.

2.4 User objectives

Our objectives is Deployment of a COVID-19 tracking app for Egypt to help people to help to check their status and if they have contacted an infected user.

2.5 general constraints

One of the main constraints of the system is the ability to collect all the data accurate from the source source, also the ability to provide a true booking system makes that could be a reference for the users when they got suspicious to be infected. Different problems would be challenging the system.

3 Functional Requirements

- The user access system process takes place either by Sign-in or Registration to be able to get benefit from services provided on the app or can sign out from system by clicking on logout.

Function	Register
Description	Add new user to the system so he could login with same identity later on and do application's services
Input	Fullname,phone,location,password,username
output	save data on database and tell user whether the process was accepted or not
Action	checks if the username entered by the user is already registered , if it is ,it tells the user to enter another username , if it isn't its proceeds to home page.
precondition	the username must not be already registered on the database, and Server must be connected to the Database.
Post-Condition	the username information should be saved in the database according to the validations required

Function	Sign-in
Description	user shall be able to sign in after checking his username and password are in the database
Input	username, password entered by user
output	user is directed to home page to choose the service.
Action	check if username and password are in the database
precondition	the username must not be already registered on the database, and Server must be connected to the Database.
Post-Condition	the user is signed in, and can do application's services

Function	Sign-out
Description	the user shall be able to sign out
Input	the user presses the sign out button
output	returns the user to the sign in page
Action	N/A
precondition	the user should be signed in, and Server must be connected to the Database.
Post-Condition	the user isn't signed in anymore

Function	Delete account
Description	the user can delete his own account
Input	click on Deactivate Account button on profile
output	returns the user to the sign in page
Action	N/A
precondition	Server must be connected to the Database.
Post-Condition	Account Deletion

Function	Edit account
Description	the user can Edit his own account
Input	click on Edit info button on profile
output	information updated successfully
Action	N/A
precondition	Server must be connected to the Database.
Post-Condition	Account Edited

Function	Choose service
Description	user choose the service he wants from the Home page
Input	click on Edit info button on profile
output	user is directed to the service page
Action	N/A
precondition	User must be connected to the internet and Logged-in
Post-Condition	user can use the service that will be chosen

Function	Book Covid Test
Description	user reserve a test by viewing and selection Locations and Time slots that are available
Input	click on Book test button then input Location and Time
output	Test is booked successfully
Action	N/A
precondition	User must be connected to the internet and server must be connected to Database
Post-Condition	user will be ready to do the Test in chosen Location and time.

Function	Check Symptoms
Description	user check symptoms by answering some questions
Input	user input each question's answer about symptoms
output	you are infected or your are not infected
Action	N/A
precondition	User must be connected to the internet and server must be connected to Database
Post-Condition	user will know if he has the symptoms or not

Function	Trace
Description	user find out if he was near another virus holders near his place
Input	user input Location
output	Holder name,Location, time and date
Action	N/A
precondition	User must be connected to the internet and server must be connected to Database
Post-Condition	N/A

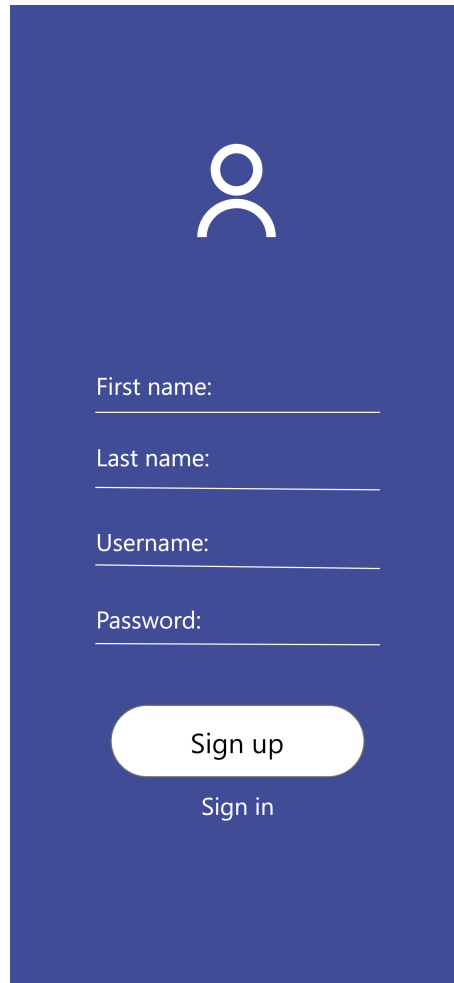| Function	Check into venues
Description	user check into venues by choosing one by getting location first
Input	user input Location then choose venue
output	checked into venue completed
Action	N/A
precondition	User must be connected to the internet and server must be connected to Database
Post-Condition	N/A

4 Interface Requirements

4.1 User Interfaces

Use some software for primitive plan of your project. Describes how this product interfaces with the user.

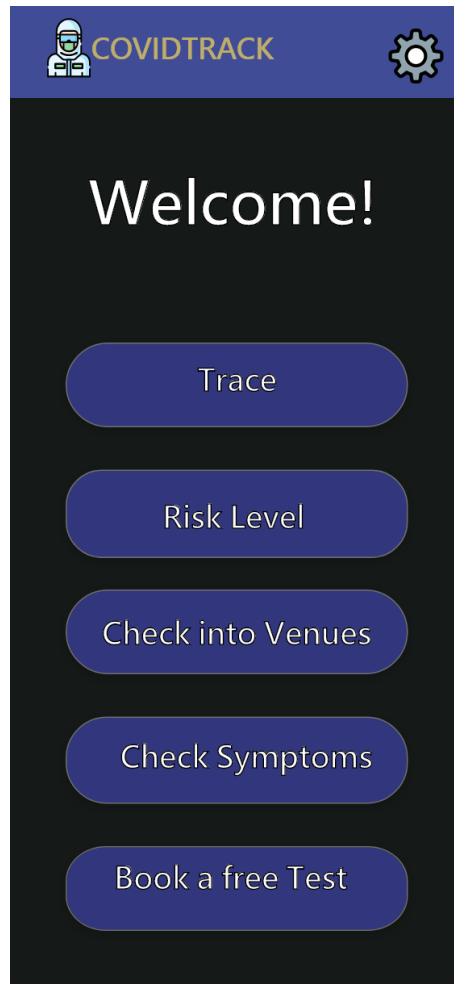### 4.1.1 GUI

Figure 2: sign up page
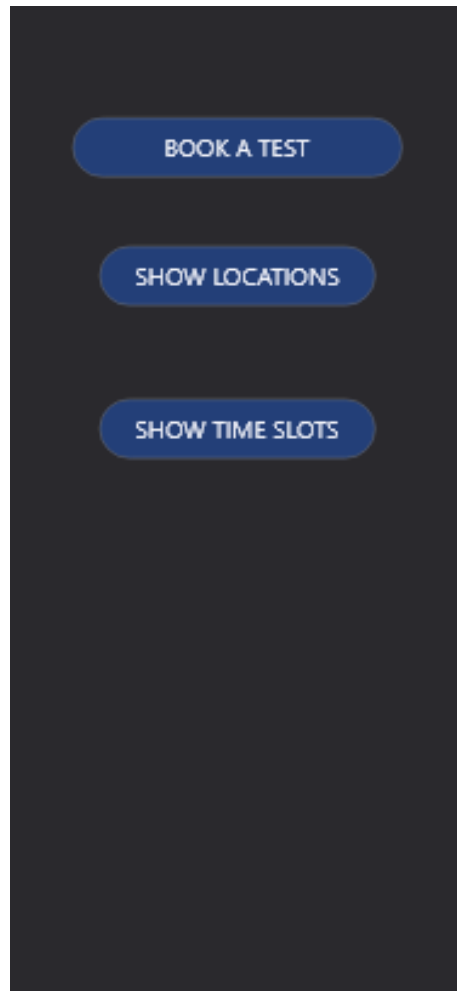
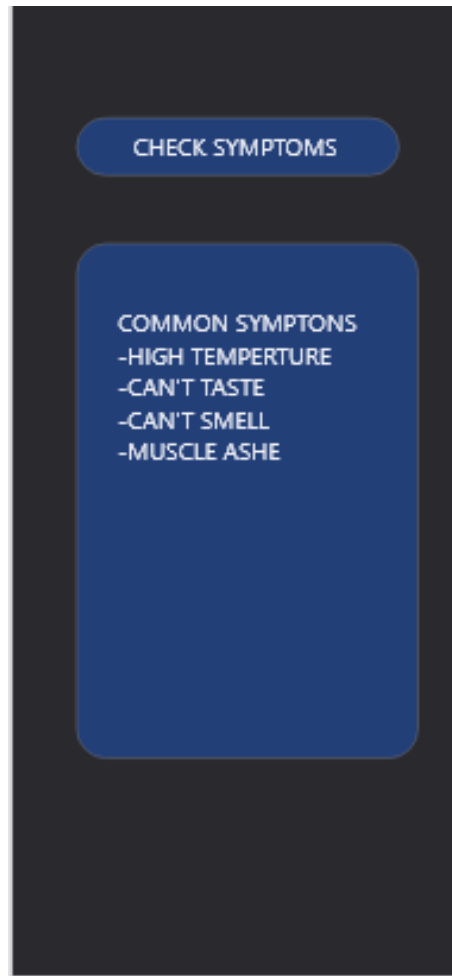Figure 3: Login page

Figure 4: Home page
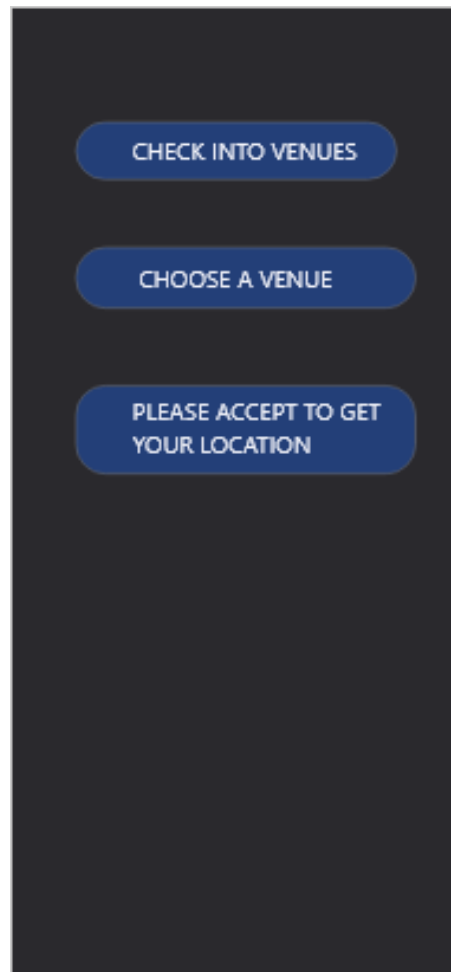
Figure 5: book a test

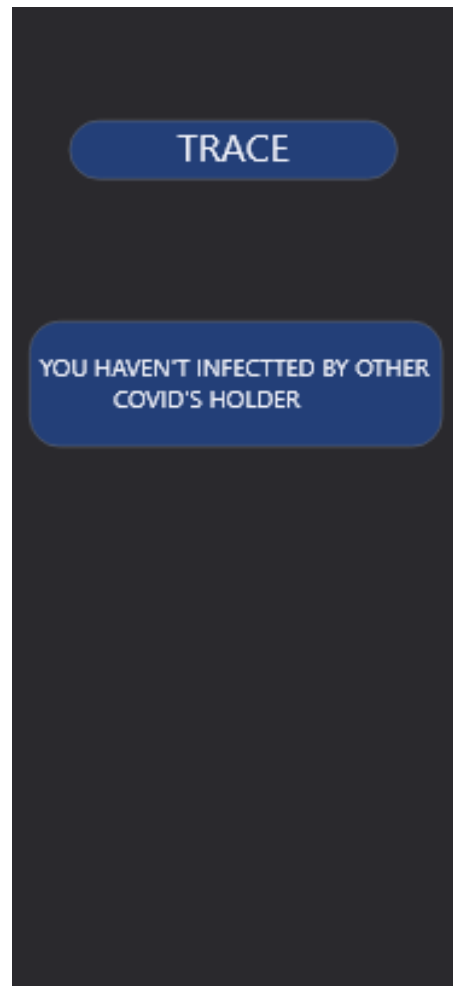Figure 6: check symptoms

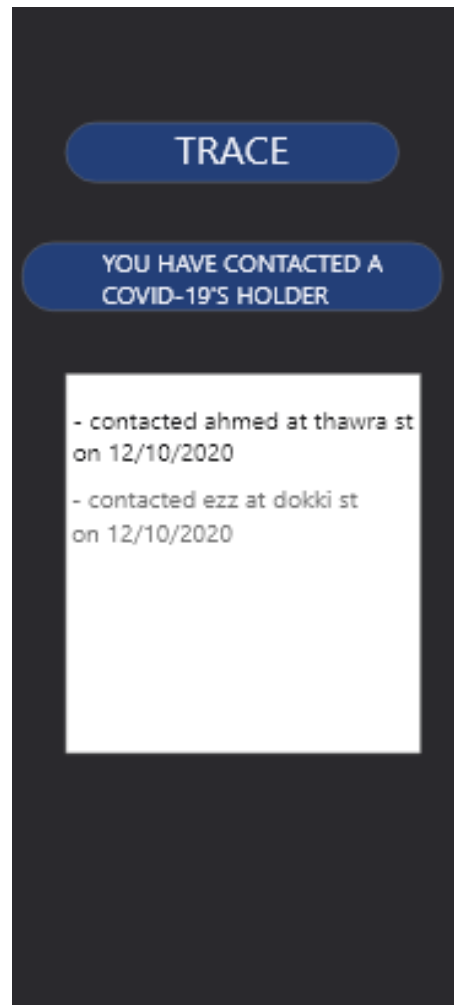Figure 7: check into venues

Figure 8: trace with no affection

Figure 9: trace with affection

4.2   hardware Interfaces

- Computer

- Mobile Phone

4.3   communications Interfaces

wireless LAN:

- 3G

- 4G

4.4   software Interfaces

flutter UI software Development kit

5   Performance Requirements

Specifies speed and memory requirements.

6   Design Constraints

constraints of the system is the ability to collect all the data accurate from a credible source the ability to provide a true booking system for COVID-19 cases

to provide all needed data and information about the COVID-19 and how to handle your health if you are affected

7   Other non-functional attributes

7.1   Security

Security in this application can be applied to the system by encrypting data of all users before being stored. Each user has its username and password which will be hashed while storing in the database.

7.2   Maintainability

the system can maintain any Data despite how big it is. the code shall be written in an understandable way to help in the ability to maintain ,modify information, update and fix problems of the system,the system shall also provide capability to back-up the data

7.3 Availability

the system should be available at all the time,except a few minutes to maintain the system monthly .

7.4 reliability

the output of information should be accurate

8 Project Plan

task name	Finish date
SRS v1	18/10/2020
SRS v2	22/10/2020

9 References

References

[1] https://psychcentral.com/coronavirus/background-history-of-the-coronavirus-covid-19/?fbclid=iwar0vta7nlhxxbabzj3v1tn0gn4pa-y2ocbm56v8l5miqdqxnofw2yh-82nw.

[2] Nhs covid-19 (https://play.google.com/store/apps/details?id=uk.nhs.covid19.production).

[3] Who info (https://play.google.com/store/apps/details?id=org.who.infoapp).