Project Documentation

Application name: CovidCare Appointment App

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DESCRIPTION

This app creates a doctor appointment. Patients can login to the app and create an appointment with his/her family doctor. Once the appointment is created on the back end, the server sends an email notification to the doctor and patient. Doctor can login to the app, find his patient.So that he can do the diagnosis and treatment on the appointed date without any collision of over booking of other patients.

APP INFORMATION

This COVID'19 Care Appointment Application is designed by using:

1. IONIC 4 framework

2. Angular CLI

3. Visual Studio Code

4. Node JS

   4.1 Nodemailer

5. Mongodb

DISPLAY DETAILS

This CovidCare Appointment Application is designed to display on any device.

BUILDING TOOLS

IONIC FRAMEWORK

Free and open source, It offers a library of mobile-optimized UI components, gestures, and tools for building fast, highly interactive apps.

In this Internship we have learned how to use the Ionic Platform for building a real time mobile application. It provided the ready-made components , typography and gorgeous base theme that adapts to each platform.

It helped us throughout the internship to build a simple, decorative and high quality UI design for our application. With Ionic's **Adaptive Styling**, our app looks and feels at home on every platform and device.

The most used ionic components in our app are:

1. Ion-item

2. Ion-card

3. Ion-list

4. Ion-button

5. Ion-icon

6. Ion-label

7. Ion-thumbnail

8. Ion-back button

Thus we have created a complete mobile app using this user friendly Mobile app framework.

ANGULAR

Angular is a platform and framework for building single-page client applications using HTML and TypeScript. Angular is written in TypeScript. It implements core and optional functionality as a set of TypeScript libraries that we import into our apps.

Angular is a platform that makes it easy **to build applications** with the web. **Angular** combines declarative templates, dependency injection, end-to-end tooling, and integrated best practices to solve **development** challenges. **Angular** empowers developers **to build applications** that live on the web, mobile, or the desktop.

NODE JS

Node.js (Node) is not a framework nor a language but a runtime open source development platform for executing JavaScript code server-side. It is easy to learn for both front-end and back-end developers.

NODEMAILER

Nodemailer is a module for Node.js applications to allow easy as cake email sending. Nodemailer is licensed under MIT license.Nodemailer is Windows friendly, we can install it with npm on Windows just like any other module, which requires no compiled dependencies. Used in our application to update the doctor and patient regarding the appointment confirmation.

VISUAL STUDIO CODE

It is a free source-code editor made by Microsoft for Windows, Linux and macOS.

We can build apps for Android, iOS, and Windows devices by using Visual

Studio. As we design our app, used tools in Visual Studio to easily add

connected services

Built our app by using HTML and JavaScript. Share code, strings, images,

and in some cases even the user interface.

At its heart, Visual Studio Code features a lightning fast source code editor,

perfect for day-to-day use. With support for hundreds of languages, VS

Code helps you be instantly productive with syntax highlighting,

bracket-matching, auto-indentation, box-selection, snippets, and more.

The VSC editor is user-friendly for the app or web developers. So we
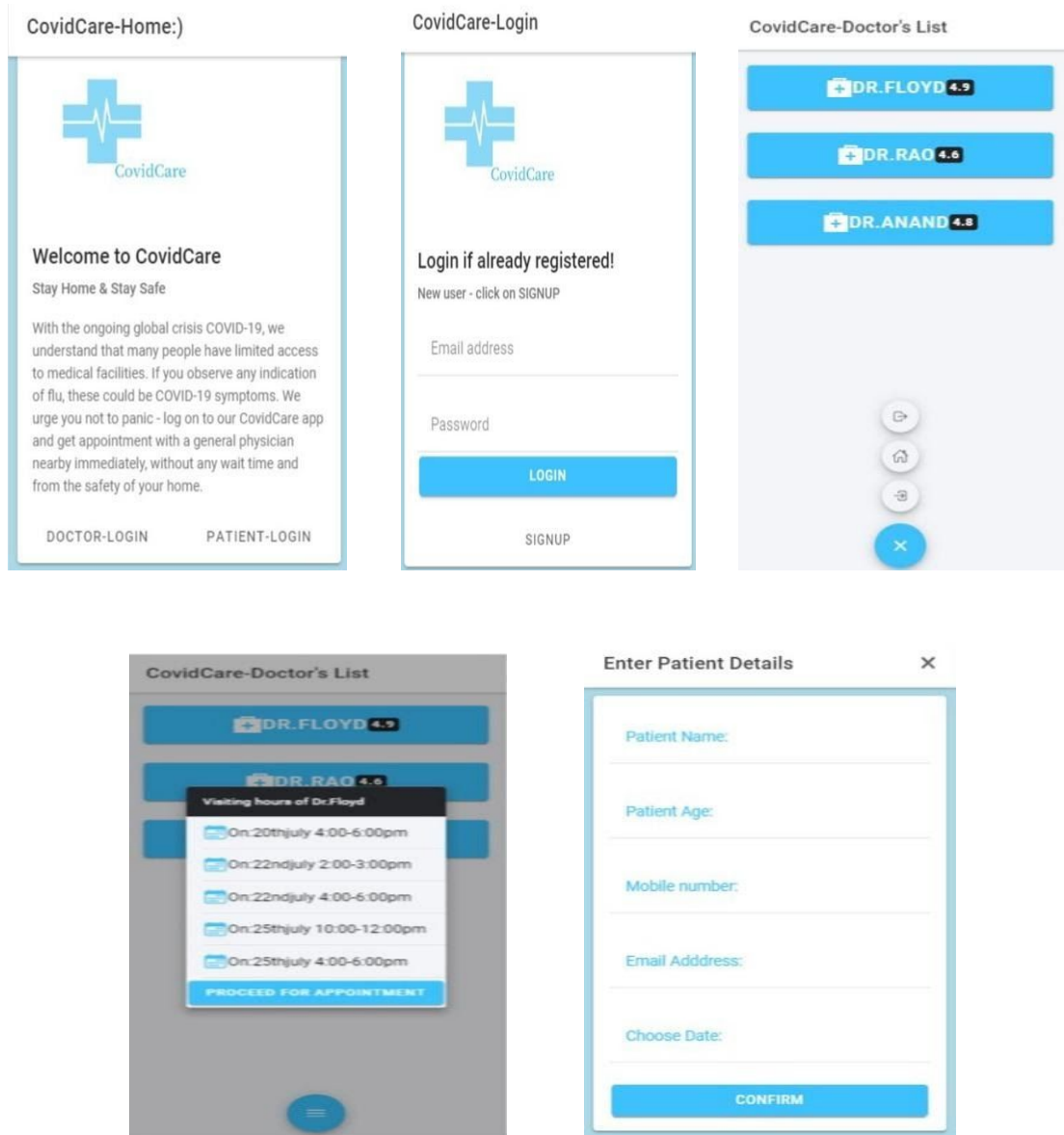
developed our app with great ease.

MONGODB

MongoDB is a cross-platform document-oriented database program. Classified as a NoSQL database program, MongoDB uses JSON-like documents with optional schemas.It is an object-oriented, simple, dynamic, and scalable database. It is based on the NoSQL document store model. The data objects are stored as separate documents inside a collection — instead of storing the data into the columns and rows of a traditional relational database.

MongoClient is a Nodejs library that handles connecting to and interacting with a MongoDB database.It is a NodeJs Module that lets you Manipulate,Create,Connect to a Mongo Database.

UI Side

App Flow

Server Side

The users are authorised with the proper login to get authenticated as the

user information is stored in the database and validated.

Conclusion

Thus we have created the "CovidCare" application using all the App developing technologies

introduced in the internship.

This application can be developed further in future to monitor the diagnosis process and hold a

record of all the patient's history about the pre and post treatment details.The prescription details

can also be sent to the pharmacy and patients to track the delivery.