Deployment Manual

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Introduction

This document walks you through the architectural structure of the application, which major libraries are used, how to install them and how to build and run the project.

Most sections of this document assume that you have completed all the previous procedures. For example, **Build and Test** section expects you to have **Dependency** and **Installation of React-Native Dependency** completed.

Architectural Background and Structure

This section includes the general architecture background and structure of the application.

Frontend

The application is developed to run on two different mobile platforms, **Android** and **iOS**.

The codebase is written in **react native**. For easier development of the application, **Expo** is used. **Expo** is a react native framework that allows developing an application for both Android and iOS, with only **one codebase**.

Dependencies are installed using node package managers or **npm**. **Expo CLI** is required to build, run and deploy the project.

Backend

For storing user data, Firebase, and specifically, Firestore is used. **Firestore Database** is used as a **backend** to store the user and authentication information, the mapping from symptoms to causes, the mapping from body parts to symptoms and the causes details and its available resources.

Prerequisite

This section includes the dependencies that other procedures may require at any point in this document.

You will be **required** to install the following dependencies on your machine.

➔ **Node js**

➔ **Expo CLI**

Follow the installation instructions on their official website.

Installation procedure is specific to the operating system of your machine.

To see if the dependencies have been correctly installed, try the following command on your terminal after a reboot:

> **>** npm --v

> **>** expo --version

Installation of React-Native Dependency

This section includes the procedure to install the react native dependencies required to build the project.

!! Commands should run from the **terminal** of your machine.

The list of dependencies to be installed can be found at the end of this document.

First, clone the project to your machine, or download and unzip the project.

> **>** git clone https://github.com/UAlberta-CMPUT401/arche-echo.git

Move your working directory to ./frontend/.

> **>** cd ./frontend/

Install the dependencies using npm. This will read and install all dependencies required to build the app from ./frontend/package.json.

> **>** npm install --legacy-peer-deps

It is worth noting that all the app-related commands should run from ./frontend/ directory.

Build, Run and Deploy

This section includes the procedure to build, run and deploy the project.

Build and Run

To build the project and start the expo server, run the following command. **Make sure** that you are located in the directory ./frontend/ before running the command.

> **>** expo start

If you have any mobile emulator set up on your machine, you can try the app on your emulator. Otherwise, you can use your mobile devices to run the app. You have to install the **Expo Go** app in your mobile phone to run the app.

Deploy to Public

To make the app publicly available on Expo Go app but not limited by a local network, you must first **sign up** for an **expo account**. Then, run the following command.

> **>** expo publish

It will upload the app to the expo server which will be available anywhere and at any time.

And More

To make installable packages, follow the instructions on the link below:
https://docs.expo.dev/classic/building-standalone-apps/

To submit the app to app stores, follow the instructions on the link below:
https://docs.expo.dev/build/setup/

Firebase (Backend Equivalent)

This section includes the Firebase account credentials and which data is being stored within the firebase.

Account Credentials

The following credentials are **required** to manage the Firebase project.

Email: archeechodevteam@gmail.com
Password: ArcheTeam10

With the above credentials, visit this link: https://console.firebase.google.com/

Stored Data

The following information is stored in the Firestore Database:

- Authentication information - Required to gain access to the firestore database

- User information - Disclaimer agreement, email, name and starred tools

- Mapping from symptoms to causes - Possible causes for each symptoms

- Mapping from body parts to symptoms - Related symptoms per body parts

- Causes details and its available resources - Detail of each causes and its available resources such as youtube videos, ebooks or infographics

- Feedback forms - User-submitted feedbacks

API Documentation

More information about Firebase can be found from the links below:

➢ https://rnfirebase.io/firestore/usage

➢ https://firebase.google.com/docs/firestore/data-model

List of React Native Dependencies

This information can also be found from "./frontend/package.json".

```
"@expo-google-fonts/poppins": "^0.2.0",

"@react-native-async-storage/async-storage": "~1.15.0",

"@react-navigation/bottom-tabs": "^6.0.9",

"@react-navigation/drawer": "^6.1.8",

"@react-navigation/native": "^6.0.4",

"@react-navigation/native-stack": "^6.2.2",

"@use-expo/font": "^2.0.0",

"expo": "^42.0.4",

"expo-app-loading": "1.1.2",

"expo-font": "~9.2.1",

"expo-google-app-auth": "^8.2.5",

"expo-google-sign-in": "~9.2.1",

"expo-linear-gradient": "~9.2.0",

"expo-linking": "~2.3.1",

"expo-location": "~12.1.2",

"expo-splash-screen": "~0.11.2",

"expo-status-bar": "~1.0.4",

"expo-web-browser": "~9.2.0",

"firebase": "8.2.3",

"react": "16.13.1",

"react-dom": "16.13.1",
```

```json
"react-native": "https://github.com/expo/react-native/archive/sdk-42.0.0.tar.gz",

"react-native-appearance": "^0.3.4",

"react-native-elements": "^3.4.2",

"react-native-event-listeners": "^1.0.7",

"react-native-gesture-handler": "^1.10.3",

"react-native-iconly": "^1.0.12",

"react-native-maps": "0.28.0",

"react-native-onboarding-swiper": "^1.1.4",

"react-native-paper": "^4.10.0",

"react-native-password-eye": "^1.0.2",

"react-native-reanimated": "^2.2.3",

"react-native-safe-area-context": "3.2.0",

"react-native-screens": "~3.4.0",

"react-native-super-grid": "^4.1.3",

"react-native-touchable-scale": "^2.1.2",

"react-native-vector-icons": "^8.1.0",

"react-native-web": "^0.17.5",

"react-native-webview": "11.6.2",

"react-native-youtube-iframe": "^2.1.2"
```