Vellore - 632 014, Tamil Nadu, India

ANDROID WEATHER APP

A PROJECT REPORT

Submitted in fulfilment

OF

Open Source Development for Google Applications(EXC1081)

by

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16BIT0172

<u>ACKNOWLEDGEMENT</u>

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DECLARATION BY THE CANDIDATE

We hereby declare that the project report entitled **"ANDROID WEATHER APP "** submitted by me to VIT University, Vellore in partial fulfillment of the requirement for the award of the degree of

B.Tech.(Information Technology) is a record of J component of project work carried out by me under the guidance of **Team GDG VIT** We further declare that the work reported in this project has not been submitted and will not be submitted, either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university. Place: Vellore

Date:21st March,2018

VINOD TAHELYANI

<u>CERTIFICATE</u>

This is to certify that the project work titled "**ANDROID WEATHER APP** " that is being submitted by - "VINOD TAHELYANI- 16BIT0172"

for **Open Source Development for Google Applications(EXC1081)** is a record of bonafide work done under my supervision. The contents of this Project work, in full or in parts, have neither been taken from any other source nor have been submitted for any other CAL course.

Place : Vellore

Date : 21/3/2018

ABSTRACT:

To have information on finger tips we are building a weather app for android which displays the current information accurately as well as information about upcoming days, using 3rd party APIs.

INTRODUCTION

React Native Elements library contains a set of really useful and powerful UI components that we can drop into our app and become productive immediately. That's one of the biggest promises of React Native, to get you to be more productive than you would in either native Android or iOS.

Some example of components:

Buttons

Badges and Avatars

some complex list layouts, etc.

An example of which is:

```
<Button

onPress={() => navigate('DetailsPage', {param1: msg2})}
backgroundColor={css.colors.button_bg}
color={css.colors.button_fg}
title='Detail Screen'
fontFamily={css.values.font_body}
fontsize={css.values.font_body_size}
icon={{
name: 'android',
color: css.colors.button_fg
}}
borderRadius={css.values.border_radius}
/>
```

GETTING STARTED WITH PROJECT

Requirements- Node.js, Android Emulator or physical device connected with system, text editor.

To get started with project we must have react-native-cli installled on system.

Run: $ npm install react-native-cli

$ react-native init WeatherApp

load the project into text editor and run in emulator

$ react-native run-android

In this project we wil use vector icons so we have to intall vector library

$ npm i react-native-vector-icons -s

$ react-native link react-native-vector-icons-s
To get above two library running on to the project we have to install another dependency

$ npm i react-native-elements -s

The dependency of the vector icons requires a few fonts to be present on your development system therefore, we have to run the react-native link command to get it done.

The App.js and Index.js file

The App.js file in the source code has all the components for the UI and navigation code.

The main file to get started with is the Index.js class. This file takes a call to AppRegistry.registerComponent() so that the UI components can be loaded on to the view of the device.

AppRegistry.registerComponent('forecast', () =>Forecast);

What is Forecast? It's a Navigation-drawer more specifically it is a class which is called when we have to display the view. If we look at the output below the blue rectangles in the view correspond directly to the class objects that are created in App.js file. And there is a direct mapping between the navigation structure and the code, which is the advantage of using React Navigation system. It's the most powerful component ,and easy and simple to use.

Just like OG Navigator, we have to define all the Routes in our application. So irrespective of what the type of navigation we are using (queue, tab, or stack) we must have to construct it with a set of routes. Each route has a name and it loads a screen. And just like the OG Navigator we will get a navigation object that you can use to push, and pop different routes. It's called props.navigation.

Firstly we will set the API key for getting the weather detials and fetch the detials in json format.

We wil use the darksly api for this purpose

url: https://api.forecast.io/forecast/<<API key >>/latitude,longitude

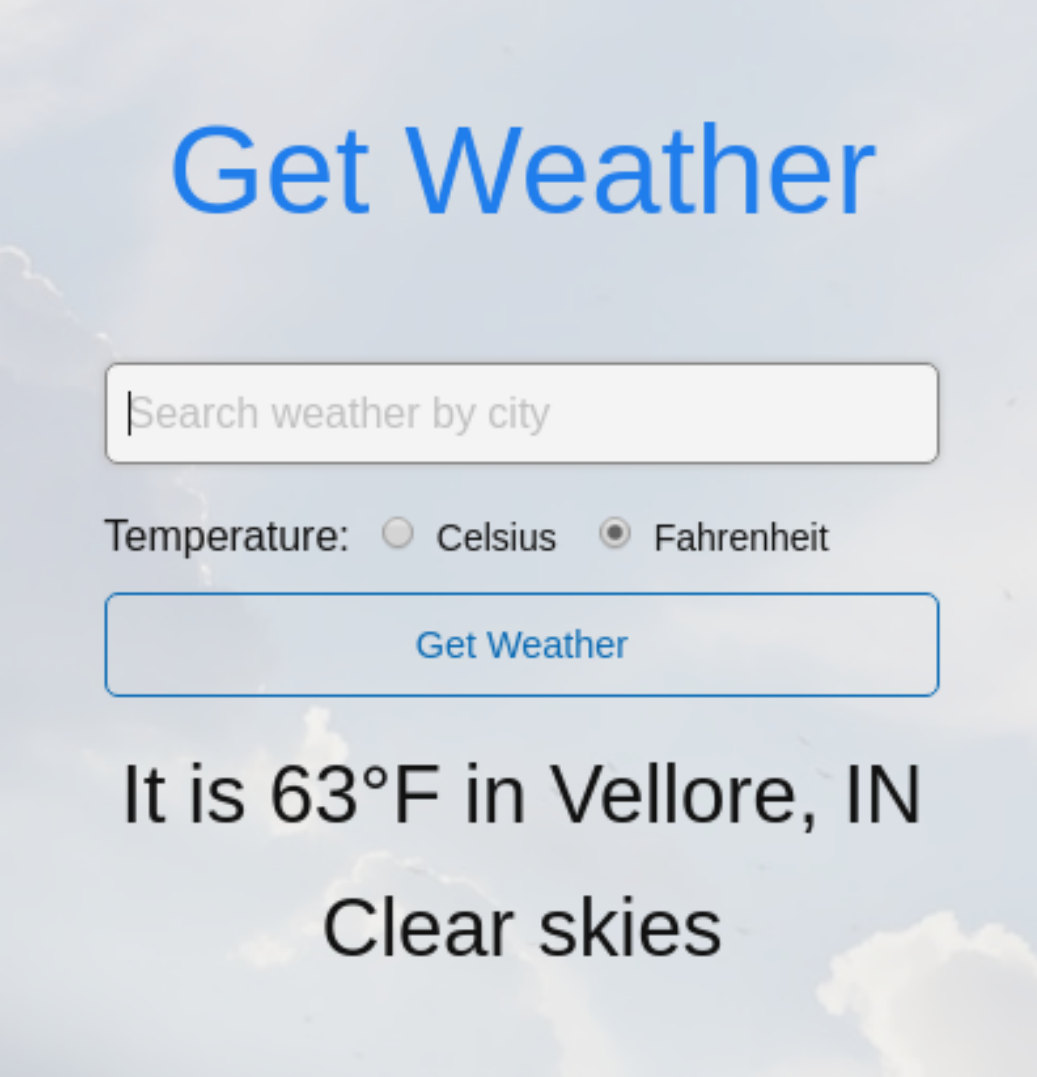fetch the json data by giving the proper location and filter the results.

Make the view of the current temperature state and render it in main view also make view of forecast data of each day by generalizing them and using loop to render it.

Create styles for the view and at last export them.

Challanges:

➔ making the navigation view and mapping them to code.

OUTPUT:

Saturday, Mar 24

67°F
few clouds

Sunday, Mar 25

68°F
clear sky

Monday, Mar 26

65°F
scattered clouds

Forecast for next 5 days

Thursday, Mar 22

67°F
clear sky

Friday, Mar 23

67°F
clear sky

Saturday, Mar 24

67°F
few clouds

REFERENCE:

1. https://developerlife.com

2. https://facebook.github.io/react-native/

3. https://codeburst.io