EVE-Electric Vehicle Charging Station Locator App

Group No: 16

Mohammad Sinan M P	Roll no.26
Muhammed Jaseem V K	Roll no.31
Shebin Niyas P	Roll no.53

S_6 B.Tech

Government Engineering College, Wayanad

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Outline

Introduction

Electric Vehicles is the future of Transportation and its usage is increasing day by day.Electric vehicles (EVs) offer an opportunity to replace fossil fuels in the transport sector. Electrification of the transport sector can also bring benefits in terms of increased energy efficiency and reduced local pollution.Nowadays Electric Vehicle Charging Stations are very rare and only available at towns. Our goal is to promote Hotel owners to set up Electric Vehicle Charging Stations so that travellers can charge their vehicles as well as providing directions to charging stations.

Problem Definition

- Design and Implement a software system to solve shortage of Electric Vehicle Charging Stations by facilitating charging station registration and providing directions to the charging stations .

Related Works

DESCRIPTION	MERITS	DEMERITS
1. PLUGSHARE		
■ App to find nearest EV and Tesla charging station .	■ App can show whether the parking slot of charging station is available or not. This app will also display correct details about charger . ■ An easy guide to plan trip accordingly	■ Users find it challenging to add existing charging stations to the app.

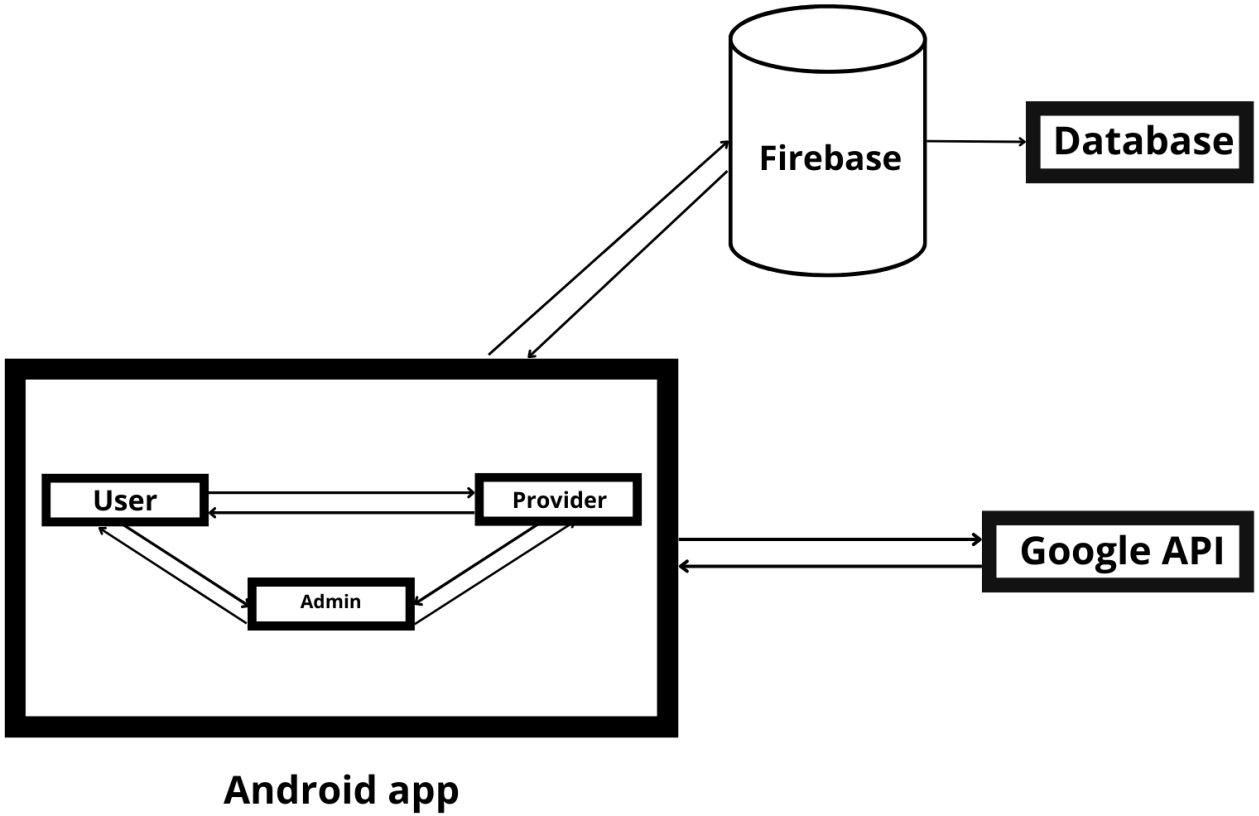
Related Works (contd.)

DESCRIPTION	MERITS	DEMERITS
2.Open Charge Map		
■ Open Charge Map is an open source website which provides charging station data for electric vehicles.	■ Open charge map correctly verifies the providers . ■ Correct location of charging stations is shown.	■ Houses or Hotels cannot be added as charging stations in this app.

Methods

This is a software system in which android app is the client part consisting of users and providers and firebase is the back end.The System uses Google API to fetch current location of the user and provide directions to the specified charging stations . We use firebase database for user authentication and firestore to store the data as a no sql database.

Architecture



Requirements

- A code editor(such as VS Code)
- Flutter SDK
- Google Map API
- UI Designs
- An Android Phone with our app installed and Internet connectivity
- A database program

Action Plan

Phase	Modules	Date
1	Front-End	10/07/2022
2	Back-End	18/07/2022
3	Project Final Review	19/07/2022
4	Submit Mini Project Report	21/07/2022

Table: Action Plan