ANDROID WEATHER FORECAST APPLICATION USING ANDROID STUDIO

VIT
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ABSTRACT

A large number of requests that can be made on a computer can now be realized on smartphones or tablets. Because of their high hardware performance, mobility and low cost, smart mobile devices take on the primacy of classical computers in many spheres of life. The smart mobile software market is rapidly increasing, and the need for experts in this field is enormous. All of these functionalities can be potentially materialized into many forms. One of which is a Weather forecasting App. It would be more user friendly for a user to open an App and get the weather forecast for the day and for days to come rather than open the browser and manually type to know the weather for the day. Such an app can be realized by using APIs. Weather requests can be sent to the concerned API and the relayed data can be displayed on a well designed UI in the form of an App.

INTRODUCTION

Information technologies played importance role in the worldwide organizations due to their efficiency with low costs, especially for developments in computer system, information systems and data management systems. The World Wide Web is not only used to networking, sharing information, sell products and conduct business etc. but it can also be used to improve design engineering systems and manufacture them as well as testing them for final products. As weather is the statement of the physical conditions at an instant, forecasting is of concern to all living creatures all over the globe. In this 21st century, weather monitoring and forecasting holds great importance and is used in several areas ranging from keeping track of agricultural field weather conditions to that of industrial conditions monitoring. Weather monitoring would help in keeping record of different climatic behaviors which includes light intensity, temperature and temperature. Weather Monitoring System can either be wired or wireless one. Just in case of wireless communication, the connectivity will be more suitable and user friendly and weather monitoring would not require physical presence of the person at the location. Wireless communication is the transfer of information over a distance without the use of wires.
The project is a simple Weather Monitoring System which displays weather for the present day and upcoming days.
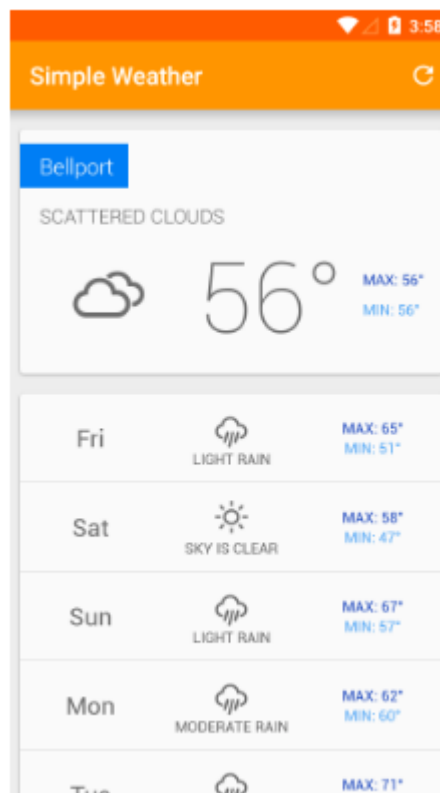
METHODOLOGY

- Fetching data from OpenWeatherMap formatted as JSON.

- In the query string, we pass the Latitude, Longitude and the imperial system the results should be in.

- Using the HttpURLConnection class to make the remote request.

- Making two requests, one for the current location weather and the other for the five day forecast.

- APK is within the file for download.

DIFFICULTIES FACED

1) Learning to communicate with APIs

2) Design of Application Interface

3) Handling gradle file in Android Studio

4) Setting Up Android Studio

APP SCREENSHOT

CONCLUSIONS

The development of a modern information society must be based on the application of new ICT technologies. The use of smart mobile devices in all segments of society requires the development of new mobile applications. The global software market in this area is growing at a tremendous pace, so the need for education of IT specialists is very high. This trend of the development of modern technologies enables the rapid development of the economy in the IT sector. Of great importance is the advancement of the educational system, which must be modular and dynamic, so that it can quickly implement new technologies into plans and programs in all of the levels of education.

REFERENCES

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GITHUB LINK: **https://github.com/saik954/Weather-App-Android**