

ANDROID APPLICATION FOR DETERMINING WEATHER CONDITION

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ABSTRACT

The development of the user friendly application exploited using using the Android platform . Android is an open-source software stack created for mobile phones and other devices and is built on top of Linux kernel and GNU software. The software stack of the Android runs Java applications using Java core libraries. Each instance of Java application runs on its own Virtual Machine called Dalvik . Android is freely available to zmanufacturers for customization, there are no fixed hardware and software configurations . However, Android itself supports features. The following listed are some of them which used in the project Uses SQLite, a lightweight relational database, for data storage. SQLite has been used to save the data read and images used by the application development Supports GSM/EDGE ,Global System for Mobile Communications - Enhanced Data rates for GSM Evolution ,IDEN,CDMA,EV-DO,UMTS, Bluetooth,LTE,WiMAX and WiFi which have be used for this application.

Keyword:-SQLite,Dalvik,GSM/EDGE

1 INTRODUCTION

Over the past few years, Weather Report applications have become an extremely hyped thing for mobile users from all over the world. And, it is no wonder to learn that with the passage of time, their popularity and demand continue to enhance. Some of the most popular and downloaded Weather Report applications include Google Weather, Yahoo Weather App and so on.The versatile weather application is a user friendly application in which it helps the user to interact with it easily and users don't have to face any difficulties while using this application as it was developed as a user friendly application .

1.1 OVERVIEW

The project , the “APPLICATION FOR DETERMINING WEATHER CONDITION ” is a cutting edge and versatile Weather application fundamentally designed to help people to travel long distances connect with their near place ones in a very friendly, easy and hassle-free manner. This application is compatible with all the Android versions . And with said that, anyone owing their own android phone, the Weather Report application can create a huge difference in hooking them up with others provided ,they also have the same application loaded on their device or PC. It is very simple to use and easy to install that can be downloaded directly. When it comes to the features, they

all are extremely engaging and they keep updating periodically back to back. The extent of fun in using this Weather application is beyond comparison. This application is highly accommodative for quick technological updates and integration. The application will have the features like providing Forecast, Humidity, Pressure etc. It also provides Forecast Weather for 7 Days all over the world.

In today's busy routine life, the users of this Weather Report application will be just a click away to access all the basic requirements in today's day to day routine of the humans. The users will have access to the latest Weather updates i.e. the burning Weather in all around the world. Secondly, the users will have the access to the weather forecast before going out of their home with the support of the GPS in their smart-phones. Compared to the other applications this Weather Report application will prove to be an amazing user friendly application with lots of more features.

1.2 PROBLEM STATEMENT

This project is to create a Weather Report application with a third party server and users to enable the users to Forecast Weather..

The project should be very easy to use enabling even a novice person to use it. This application is also developed to make people's life hustle free by introducing some of the extraordinary features like Weather updates which are going on all around the world and also getting the weather forecast before going out of the home.

This project is to design an application which consists of all the basic features which the users can access all of them with a single click.

2. LITURTURE SURVAY

Weather report is the application of science and technology to predict the conditions of the atmosphere for a given location and time. Human beings have attempted to predict the weather informally for millennia and formally since the 19th century. Weather forecasts are made by collecting quantitative data about the current state of the atmosphere at a given place and using scientific understanding of atmospheric processes to project how the atmosphere will change.

Once a human-only endeavor based mainly upon changes in barometric pressure, current weather conditions, and sky condition, weather forecasting now relies on computer-based models that take many atmospheric factors into account. Human input is still required to pick the best possible forecast model to base the forecast upon, which involves pattern recognition skills, teleconnections, knowledge of model performance, and knowledge of model biases. The inaccuracy of forecasting is due to the chaotic nature of the atmosphere, the massive computational power required to solve the equations that describe the atmosphere, the error involved in measuring the initial conditions, and an incomplete understanding of atmospheric processes. Hence, forecasts become less accurate as the difference between current time and the time for which the forecast is being made (the range of the forecast) increases. The use of ensembles and model consensus help narrow the error and pick the most likely outcome.

Over the past two decades, weather forecasting has experienced a paradigm shift towards probabilistic forecasts, which take the form of probability distributions over future weather quantities and events. Probabilistic forecasts allow for optimal decision making for many purposes, including air traffic control, ship routing, agriculture, electricity generation and weather-risk finance.

In the history of weather forecasting, attempts have often been made to devise numerical and objective methods for producing the forecast. Thus Besson in 1904 and Taylor and Rolf in 1917 produced graphical devices for representing lag relationships between selected weather variables. These studies, in common with others made in later years, have attempted to provide an equation or a graphical device of some form which would be useful in applying a particular relationship or combination of relationships to the problem of making a forecast. The distinction between an objective forecasting procedure and a procedure which depends on subjective judgments and subjective experience has not been sharply defined, nor is it intended in this paper to advocate a rigid definition.

2.1 EXISTING SYSTEM

The purpose of this project is to identify the effect that surface modifications have on the urban heat island phenomenon and related ozone problem in the metropolitan area of India. The basic hypothesis is that urban, summertime temperatures can be significantly lowered by increasing the vegetative landscape cover and enhancing the solar reflectivity of paved and roofed surfaces within an urban area. It is proposed that in addition to a decrease in temperature, the modification of an urban surface to include more vegetative cover and lighter, lower albedo surfaces will also reduce energy consumption, ozone exceedances, and detrimental environmental and human health effects associated with high levels of ozone.

The analysis is divided into three main parts. The first section of this report introduces the causes of ground level ozone and its effects in urban areas. It explains both the chemistry and transport associated with ozone exceedances. The second section is a compilation of the most viable mitigation strategies of urban heat islands: increasing vegetative cover and increasing proportions of light to dark surfaces. The effects, implementation strategies, and specific strengths and weaknesses associated with each approach are described, including a comparison of asphalt and concrete pavements systems using a life cycle analysis approach. The final section provides a case study of the Chicago area. This study entailed an examination of the land use, development of an urban fabric analysis in which total vegetative, paved, and roofed surfaces are investigated and quantified, and discussion on the effectiveness of possible mitigation strategies in the Chicago area. In general, the associated findings of my research are located within this final section.

2.2 ISSUES IN EXISTING SYSTEM

There are some existing systems available but they don't give an accurate results and doesn't provide any pictorial representation. They don't provide information about weather conditions, humidity, pressure but just display the temperature. Some of the existing systems don't provide the forecast weather which may not help the users to plan their works and may lead to futile results.

3. SPECIFICATIONS

This gives the specification of the project report as to the purpose of making the project i.e. the Weather Report application and the cope of this project in today's world and also in the future

3.1.1 PURPOSE

The purpose of forecasting is to prepare people and businesses from losing money and to enhance human comfort. Good forecasts pay off economically not by generating large sums of money but rather by preventing the loss of a large sum of money. Some examples of forecasts saving money include: Warning a car dealership of the likeliness of damaging hail, Warning the farmer of a potential damaging freeze..

On an individual basis, good forecasts help people plan their day more efficiently and keep them more comfortable. Tools such as having an umbrella and being properly dressed for the temperatures that day enhance human comfort. The public is most concerned with precipitation characteristics, temperature trends, very humid/dry air, sunshine hours, wind-chill/heat index, severe weather and air quality. The general public is interested in questions such as: Do I need to leave for work early

Private sector forecasts are generated for clients such as oil refineries, fruit and vegetable growers, cattle ranchers, casinos, airlines, electric companies, newspapers, and so forth. Each of these clients has tailored needs from a forecast. Correct forecasts have the potential to save billions of dollars each year when combining legal fees, infrastructure, saved lives, saved crops, saved time, and saved power. Correctly forecasting hurricane

landfalls, flooding, a severe weather outbreak and winter storms along with timely updates while the event is occurring are critical to saving lives.

There are numerous products available that allow for real-time “Weather” over the internet. The purpose of this project is to implement a java based chat application that will allow users with an internet connection to engage in private and public conversations. The development of this project centered on the development of environment protocol that would allow the applications to properly. This is a project to create a weather application with third party server and a client to enable the clients to know the weather conditions all over the world. This project is to simulate multicast report. In a case of multicasting user can know the predictions of climate.

3.1.2 PROJECT SCOPE

Weather Report application is going to be the text communication software, it will be able to communicate between two users using point to point communication. Companies would like to have communication software wherein they can communicate instantly within their organization. The fact that software uses an external network setup within the organization makes it very secure from outside attacks.

In the future the application can be made more effective by adding these services like Extending this application by providing graphs. Creating Database and maintaining users. Increasing the effectiveness of the application by providing graphical representation

The “Weather Report” provides the following facilities:

Provide Weather Information: we can know the climate behaviour all over the world with a single click. **Provide Pictorial Representation:** where a user can easily figure out the conditions of the environment. **Provide Search tool:** System provides a search option where a user can know the weather information all over the world with a single click.

Simple and interactive GUI: System facilitates simple and interactive Graphical User Interface for the user while handling the system.

With the development of weather report and Mobile terminal, especially the release of Android smart phone platform has injected new vitality to the mobile space. Android is an open sourcing mobile operating system based on Linux which is a completely open and integrated platform for mobile devices. Android platform consists of the operating system, middleware and user interface and application software.

Bluetooth technology is a mature short- range wireless communication technology. The working frequency band of Bluetooth does not need a license around the globe. The advantage of Bluetooth technology is reflected in the low price, easy to control and non-visual distance limitations. Bluetooth is an important feature of the smart phone, which is integrated into the Android platform, as the Android mobile network communication module. The Android system provides many Bluetooth APIs for developers to call.

The majority of the phone communicates with each other generally through China Mobile or China Unicom gateway, which have to pay related costs. The purpose of the Weather room which based the Bluetooth of android is connect phones into a local area network, then we can communicate with each other without any cost .This paper carry out a weather system via the API of the Bluetooth on the Android platform. Through the Bluetooth module, android phones can be divided into client and server and then the real-time weather

The third party server using java aims at developing a new server that could be easy for users and which could teach a new user how to involve use app and get well equipped with server. The main goal of package is to provide accurate weather. It allows all the users to establish good relations with all types of people involved in the internet. The users can develop their usage skills. It also helps in gathering information's about different places weather information. It also helps in understanding the culture of different peoples involved in the Internet.

4. CONCLUSIONS

The development of the weather report application is not an easy task. In this paper we present the main steps in development of application of weather forecast using the GPS for android. The client application communicates with the third party server using Web services to download the application. The system developed includes the testing module. The testing result showed that the system worked correctly. Next step, we are going to conduct an evaluation on the effectiveness of the system. This system will persist to grow and the future work will include improving the content of the system by adding more modules and having graphical representation as an additional feature in turn creating more assortments and enhancing the system to continuously suit the users need and the further experiments would be conducted for a longer period of time.

There is always a room for improvements in any software package, however good and efficient it may be done. But the most important thing is it should be flexible to accept further modifications. Right now we are just dealing with the Graphical representation . Further we would be including the charts and many other features to make it go with the new and trending technology.

Thus implementing the further enhancements will make the project more flexible and also ease for the users.

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