

PROJECT REPORT

WEATHER APP

Official Certification

This is to certify that G. NAGIN LAKSHMI (Name of the student) Reg. No. 203867102009 has completed his/her Internship in SMART INTERNZ (Name of the Intern Organization) on FRONTEND WEB DEVELOPER (Title of the Internship) under my supervision as a part of partial fulfillment of the requirement for the Degree of BSC in the Department of COMPUTER SCIENCE (Name of the College). SRI VANI DEGREE COLLEGE

This is accepted for evaluation.


Endorsements

Faculty Guide

Head of the Department 

Principal 

PRINCIPAL
SRI VANI DEGREE COLLEGE
TADIPATRI, GUDURUWILLODA

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PROJECT REPORT (WEATHER APP)

1. INTRODUCTION:

OVERVIEW:

A brief description about your project:

In this project, we will be building a weather application. This application will show the temperature of a location. To fetch weather information we will need an API. An API (Application Programming Interface) is a function that allows applications to interact and share data using various components and Micro services. A simple Weather application that displays the current weather, daily forecasts, and hourly forecasts based on geo location or search. Good weather API is Provide both historical weather data and forecast data via an easy-to-use, well-defined programming interface.

The weather app is a simple project developed using java script, HTML and CSS .Weather forecasting is the application of current technology and science to predict the state of the atmosphere for a future time and a given location.

Purpose:

The use of the project. What can be achieved by using this Project :

In this weather app you enter the city's name or countries and it's tell weather of that area and we add 1 more function that tell there's Haze or Cloud .so let's create this amazing weather app used APIs to retrieve. Weather is something everybody deals with, accurate data of it like what is coming can help users to make inform decisions. with weather apps for ios.

2.LITERATURE SURVEY:

EXISTING PROBLEM:

Existing approaches or method to solve this problem:

Weather forecasts are always a game of predictions and probabilities, but these apps seem to fail more often than they should. At best, they perform about as well as meteorologists, but some of the most popular ones fare much worse. Weather app, accurately predicted the high temperature in my zip code only 39percent of the time, according to Advisor, which evaluates online weather providers. It is the weather data source. And, while weather prediction is better than it was 100 years ago, it still isn't perfect.

Well, their ability to predict the weather is limited by three factors: the amount of available data, the time available to analyze it, and the complexity of weather events. Forecasting could be applied in air traffic, severe weather alerts, marine, agriculture, utility-Companies, private sector and military application.

Proposed solution:

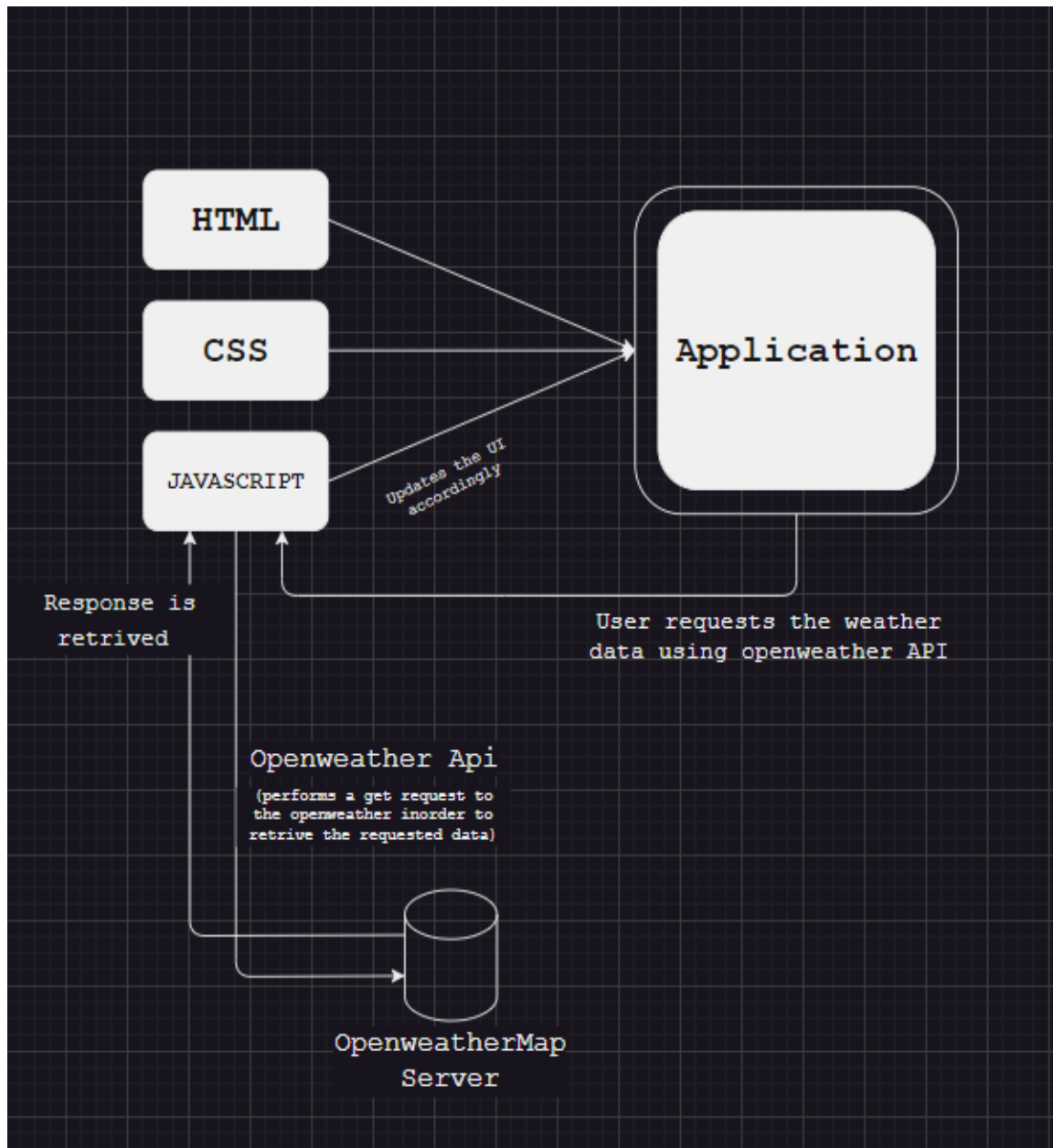
What is the method or solution suggested by you?

The Weather has a crucial bearing on our lives. Whether you are rich or poor, living in a city or village, going to your office, or planning to travel abroad, weather affects us. Any alerts regarding adverse weather conditions give people the time to either reschedule their travel date or take adequate precautions. Therefore, the demand for weather app is increasing.

3.THEORITICAL ANALYSIS:

Block diagram:

Diagrammatic overview of the project:



Hardware or software designing :

Hardware and software requirements of the project:

In the modern world, the use of measuring sensors and microcontrollers is growing every year. Their application ranges from household appliances to industrial automation. The article describes the process of developing and creating a software and hardware system designed for collection, storage and visualization meteorological data. The system includes a stand with weather sensors, a microcontroller and a software. It allows user to receive data from the stand with a microcontroller and to interact with the MongoDB database. As a result of the research and the work, a prototype of a hardware and software system was developed, which provides the tracking of atmospheric environmental indicators, their processing, storage and visualization. In addition, the possibilities for further project development are described.

HARDWARE REQUIREMENTS:

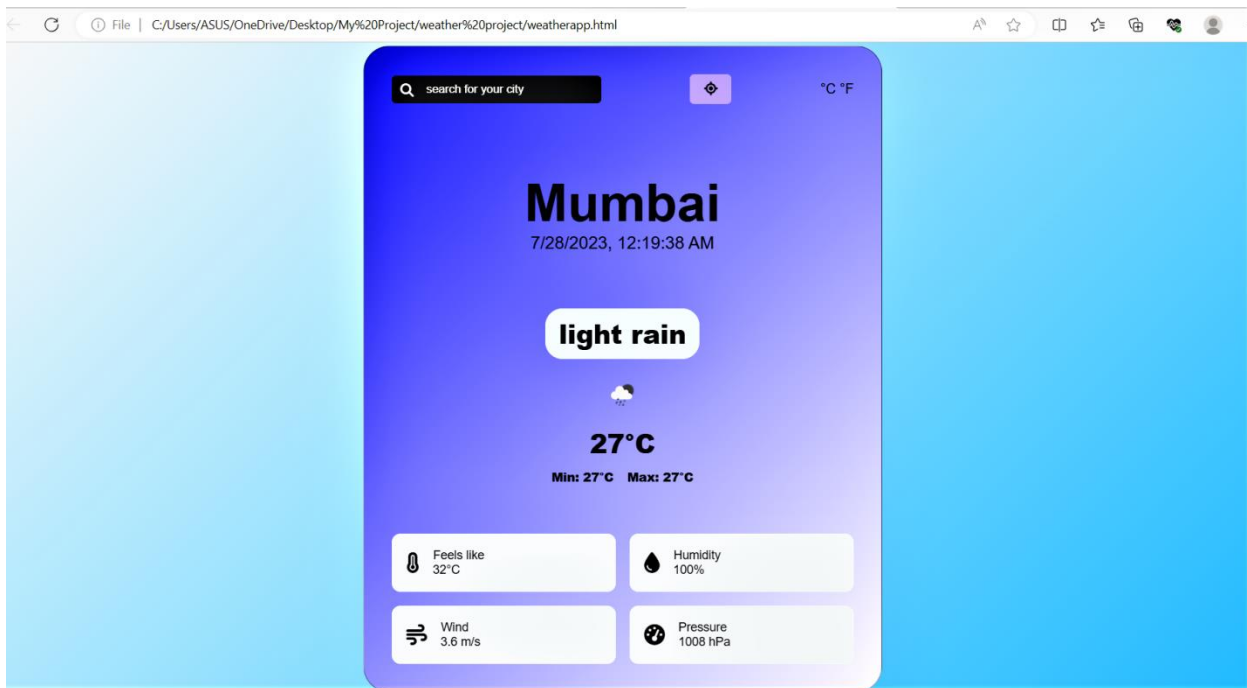
- Android mobile with a minimum version 2.2.
- The processor is not less than 500MHZ.
- RAM>170mb.
- SD Card with a minimum of 512MB
- Resolution is not less than 480*800pixs.

SOFTWARE REQUIREMENTS:

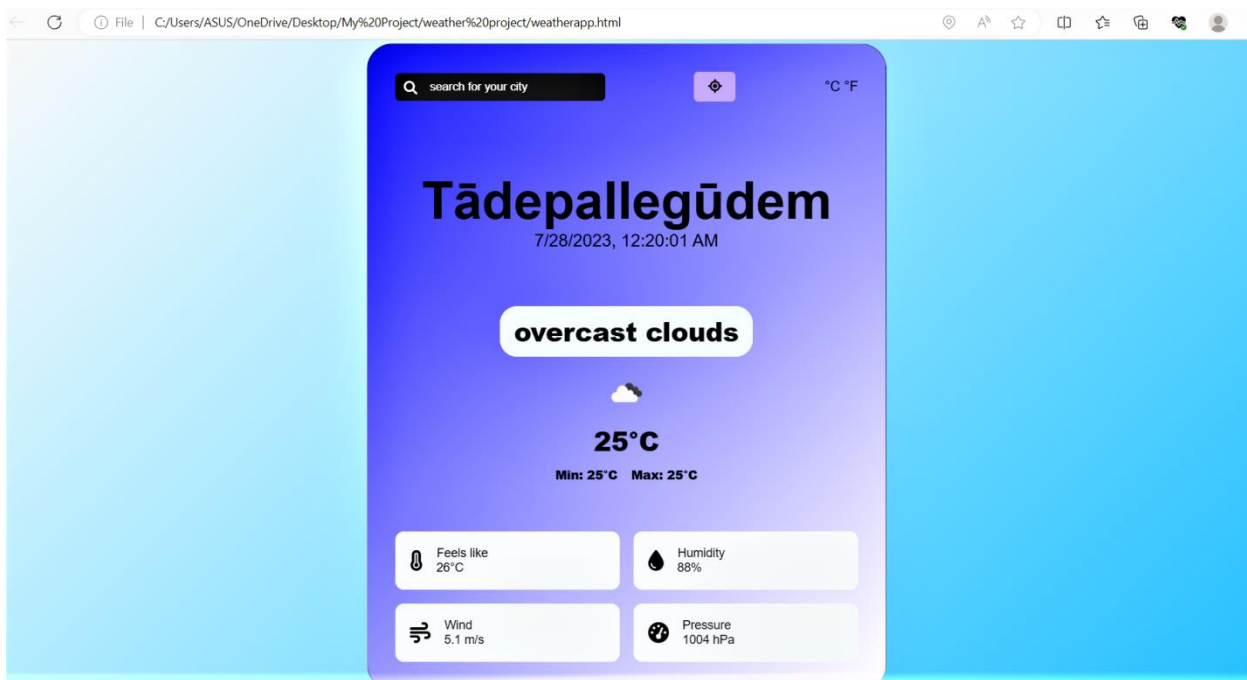
- Android Studio.
- Java script.
- XML.

4.Result:

Output of the project:



Current location output:



5.ADVANTAGES &DISADVANTAGES:

Advantages:

- Farmers can know when to plant or harvest their crops.
- People can choose where and when to take their holidays to take advantages of good weather.
- Surfers know when large waves are expected.
- Regions can be evacuated if hurricanes or floods are expected.
- Aircraft and shipping rely heavily on accurate weather forecasting.
- Military personnel benefit from Weather forecasting as they can plan their military activities based on expected weather conditions.
- Weather forecasting enables people to plan and take precautions against various natural calamities such as Flood and typhoon so that to minimize their effects; bad weather such as torrent Rainfall or strong wind can destroy properties and lead to death therefore if there is prediction that bad weather is going to happen people can take precautions.
- During the war the military can plan their battles by featuring in the expected weather condition to minimize the chance of winning the war.
- Weather forecasting greatly influences Transport, especially in air and water.
- Aircraft take-off and landing can be affected by weather whereas Storms and strong winds greatly affect water travel.
- The weather forecast can help to guide and encourage tourists to visit certain areas.
- Instant information availability.

Disadvantages:

- ❖ Weather is extremely difficult to forecast correctly
- ❖ It is expensive to monitor so many variables from many sources.
- ❖ The computers needed to perform the million of calculations necessary are expensive.
- ❖ The weather forecasters get blamed if the weather is different from the forecast.
- ❖ Confusing Terminology: The terminology used in weather forecasting can be confusing, making it difficult for some people to understand the predictions.
- ❖ Weather forecasting is the prediction of the state of the atmosphere in a particular region over the period of 24 to 48 hours
- ❖ It aids food grain transportation and storage.
- ❖ It aids in the handling of cultural operations such as harrowing, hoeing, etc.,
- ❖ It aids in the implementation of livestock protection initiatives.
- ❖ Weather Forecasting is crucial since it helps to determine future climate changes.

6.APPLICATIONS:

There are a variety of end users to weather warnings are important forecasts because they are used to protect life and property. Forecasts based on temperature and precipitation are important to agriculture, and therefore to commodity traders within stock materials.

Mobile weather apps provide easy access to forecasts whenever you need them. Many apps tell you the high temperature for the day, and they give you an hour-by-hour breakdown of temperatures, precipitation levels, air quality and more to keep you informed and safe.

A weather app that pulls from the Open Weather Map API to allow users to search for and view the forecasts in cities worldwide. Built with javascript, html, css. The central point of ongoing research regarding the usefulness of the large-scale atmospheric variability in the Mediterranean for forecasting extreme precipitation in the domain.

Forecasting could be applied in air traffic, severe weather alerts, marine, agriculture, utility companies, private sector and military application. Climatology and weather forecasting is important since it helps determine future climate exceptions.

7.CONCLUSION:

Weather conditions results from processes that endeavor to level that distinctions in the dispersion of net brilliant energy from sun. At the end of the day, Immediate condition of environment is called as climate. It normally communicated as fine, Conclusion Even though the weather app development may seem to be an easy task, it calls for a lot of time, dedication and the right skill.

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. 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 a modular and dynamic, so that it can quickly implement new technologies into plans and programs in all of the levels of education. The carried-out laboratory and field tests with use of a hardware and software system for meteorological observations showed satisfactory results..

we conclude: In order to create a weather app and succeed, it's important to think through the logic of the program and develop a strategy of distinguishing from competitors. After all, such meteorological services are basic Android & iPhone weather apps, and you should do your best to attract the user. If you want to build your own weather app from scratch, we're more than happy to help you. Our team employs only experienced and skilled specialists who'll implement your idea with pleasure and inspiration

8.FUTURE SCOPE:

The future of weather applications is promising, with the increasing demand for real-time and accurate weather information. One potential development is the improvement in accuracy through the use of advanced data collection and analysis techniques, as well as sophisticated algorithms. Satellites and super computers have revolutionized weather forecasting. The future is exciting—we are looking to promote kilometer -scale climate modelling to better simulate cloud physics, future flooding and drought risks and, for instance, the speed of Antarctic glacier melting. Apart from predicting weather, algorithms can be used to scan satellite images to automatically derive plant count and production estimates.

Weather Forecasting is crucial since it helps to determine future climate changes. With the use of latitude, we can determine the probability of snow and hail reaching the surface. We are able to identify the thermal energy from the sun that is exposed to a region. Weather predictions are created by gathering objective data about the actual condition of the atmosphere at a certain location and using meteorology to predict how the weather will behave in the future .

