

Project Report

Project Description:

Weather forecasting is very necessary for our daily lives. It helps us to prepare and make plans depending on the expectations. Many weather stations are placed around the world fetching real-time weather elements' data.

Weather-mini is a web based application through which user will be able to get live weather forecasting of the entered location. It uses a third party weather API (of openweathermap.org) which sends current weather data by city name. Weather-mini displays weather details such as precipitation, wind, atmospheric pressure, cloudiness, and temperature. With these, user can analyze trends and know the prediction of tomorrow's data or forecast the weather. To change the location user will just have to enter the new location in the location input box and will get all the weather details.

Its calculations and details are so accurate, that you can even check and match it from news channel. Its user's friendly UI is simple and easy to use, that even a child can handle it and get information on particular geographical area.

Approach:

I started the project with backend side of my webapp. First I installed the necessary dependencies like express, ejs, body-parser, dotenv etc. Then created an express app then setted the view-engine to ejs, then created a middleware that will parse the content of the form submitted. Then created the directory inside the root directory named 'views' to store all template files of the app. Then created two files inside views directory 'lander.ejs' (landing page of the app with input form that will take location as input) and 'weatherPage.ejs' (for showing the weather data). Then created a new directory in root directory named 'public' to store static files (css and media files), inside public created two directories one for css and other for media elements (mainly images), then created styles sheets for each of the pages(landing and weatherPage). Now on backend-side called the live weather api of openweathermap.org and stored and parsed the received data in local variable as javascript object. Then converted units of the received data then exported the final data to

weatherPage.ejs which will output the data to user. After completing the code first launched the app locally and checked the app is working fine. Then hosted the app on Heroku.

Tech-Stack Used:

HTML and EJS: Used the html to build the structure of webapp and EJS to include dynamic Weather data and outputting the received data at correct places.

CSS: Used it to design the webapp so as to give it a simple and easy to use user interface.

JavaScript (Node.js): Used it to setup the server(backend) of the webapp

Express.js: Used it as server framework and for handling of HTTP request

Visual Studio Code: Used to build and deploy project locally .

Repository Link: <https://github.com/Gaurav-99/Weather-Mini>

Website Link: <https://weather-mini-app.herokuapp.com/>