Weather Web application Journal

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Week 1 and Week 2:

Ever since the announcement for final project was made, We were unsure of what might be a good project. After searching lot's of topics I came up with an idea that we will make a hiking trails web app that displays some useful information about hikes to the users and lets them choose a hike to go to in their region. My partner Harsha also liked this idea and we both decided to do this project. Eventually, we also made some decisions to integrate even more useful features to our app like the weather information, map routes to a selected hike, hike trail statistics etc. So, Harsha created a wireframe on how our website might work. Meanwhile I searched for various APIs that might help for our project.

Week 3:

We are looking for some good API's for our project. After lot's of reading and research we found 3 good API's for weather application. We got some Map and Hike trail API's as well. But we are still searching for good Hike trail API's. Simultaneously we will start working on coding. We also started reading about which JS framework to choose. We read about React and Angular. Then we decided to choose React because it's easy to learn and good for beginner's to start with.

Week 4:

I started writing code. Created home page with navigation links that points to different pages. Initially created div and added links in that div. But wasn't looking good after resizing the window. So I searched for some website on google and after using dev tools got an idea about navbar. So to fixed the div issue used navbar. Referred MDN site to read about navbar. Going to create weather page with links like hike_tails link and home link.

After creating these pages, I started learning React. I did some research about how to use react framework. I also followed the lecture notes and material available on webdev-example folder to learn react. Then I realized I should have create react app first before creating home page. So I started again by first creating react app by using the command "npm install create-react-app".

It takes me lot of time to learn how to use react. I got an issue with Navbar and navigation links to other pages. I used react bootstrap to display Navbar but it wasn't appearing on a screen. I did go in depth to resolve this issue. I tried different ways of using 'navbar' like with react bootstrap and without react bootstrap. But still it wasn't showing hamburger menu. Also got an error but later I realize that I was getting an error because of function name. So resolves this issue by capitalizing the first letter of the function. So finally ended up using <nav> for navbar. After displaying navbar I

worked on links to route to other pages. Now going to work on API and form with textbox and button.

Week 5 and week 6:

This week I created form with text box and button also Working on fetching data from the API. I **used openWeatherMap API.** Displaying current weather information. I faced problem while displaying data after clicking the button, due to calling the method in a wrong way in the form. But resolved that issue after googling this error and understanding where I am getting wrong. Learned new information regarding props. It was very helpful to pass parent variables to child. To display the weather Icon, **I am using OpenWeatherMap API icon's.** Also used environment variable to hide API key. To use environment variable, I started by "npm install dotenv" and then created .env file and then added API key in this file. I also included .env in the .gitignore file.

Week 7:

Working on displaying weather forecast information. Planning to display data in the graph. Going to use bar chart to display daily data minimum and maximum temperature and line chart to display hourly data temperature.

Week 8:

Displayed data in bar chart but later got an idea of displaying data using cards. As this is dashboard application thought of using cards. So ended up displaying weather forecast information using cards instead of bar chart. Now working on displaying 24 hour weather information in line chart. Also will add CSS for good layout.

Week 9:

I learned how to display data in line chart and displayed line chart for 24 hour weather information. It is displaying every 2 hours data for 24 hours. Added background image according to weather condition. Changing background image according to weather condition was challenging task. I tried 2 3 different methods but it wasn't working. Earlier image was displaying just to div inside body but not entire body. Fixed this problem by setting image to body. For this first imported all images in file. Also added media query for responsiveness.

Week 10:

Worked on error handling from API response. I was trying to display error message based on response status code but it wasn't working so used try catch to display error. Also displayed local time of particular city according to weather condition. Had difficulty in displaying local time. Tried using timezone and sunrise time

to calculate local time but didn't worked so **used ipgeolocation API to display local time of searched city.** Also added contact page with links to github link for this project repository and linkedIn profile link. Checked the accessibility of page using WAVE PAGE. Also made the page responsive.

In the future I would like to try some animated background images according to weather condition. Also would like to display weather map. I also want to try adding horizontal scroll bar to display hourly weather information of a day .

Github project repository files workflow:

- Our weather-app folder in github contains all files of weather and hike trails application. So change directory to weather-app and then run the application using "npm start".
- In components folder, WeatherPage.js is the main file of weather app where I imported all other files.
- In weather_page folder, Weather_card.js file is storing all current weather data of searched location.
- In chart folder, lineChart.js file is storing 24 hours weather data and representing that data in line chart.
- In forecast folder, Forecast.js file is storing and displaying information of 5 day forecast.
- In weather_form folder, WeatherForm.js is for creating form with textbox, button.
- Using props I am accessing parents variable in child.

REFERENCE:

1) https://developer.mozilla.org/en-US/docs/Web/JavaScript

2) https://create-react-app.dev/docs/available-scripts

3) https://www.youtube.com/watch?v=GuA0_Z1llYU

Github repository link:

https://github.com/HarshaRamayanam/webdev-project

Deployed project link:

https://weather-hike-app.herokuapp.com/

Commands:

- git shortlog --numbered --summary

```
shweta@shweta-dell:~/Desktop/MS/Full_Stack/proposal_data/webdev-project/weather-app$ git shortlog --numbered --summary
   176  sk192
    99  HarshaRamayanam
     3  Harsha Ramayanam
shweta@shweta-dell:~/Desktop/MS/Full_Stack/proposal_data/webdev-project/weather-app$
```

• git log --format='%aN' | sort -u | while read name; do echo -en "$name\t"; git log --author="$name" --pretty=tformat: --numstat | awk '{ lines += $1 - $2 } END { printf "lines: %s\n", lines }' -; done

```
shweta@shweta-dell:~/Desktop/MS/Full_Stack/proposal_data/webdev-project/weather-app$ git log --format='%aN' | sort -u | while read name;
 do echo -en "$name\t"; git log --author="$name" --pretty=tformat: --numstat | awk '{ lines += $1 - $2 } END { printf "lines: %s\n", lin
es }' -; done
HarshaRamayanam lines: 35959
Harsha Ramayanam        lines: 1
sk192   lines: 59987
shweta@shweta-dell:~/Desktop/MS/Full_Stack/proposal_data/webdev-project/weather-app$
```