**[ Code Flow ]**

* run with index.html file.
* enter name of area. kind of names are as states, provinces, or cities name.
* click ‘submit’ button to send input data to fn1 function in script.js file.
* get user input and send to api server, and get weather and temperature information.
* transform data to json type data, and parse data, transfrom to html style class type code to send back to html.
* show the data, get group selection type input of holidays.
* click ‘submit’ button to send input data to fn2 function in script.js file.
* get selected input and send to api server, and get hotels information.
* transform data to json type data, and parse data, transfrom to html style class type code to send back to html.
* show list of hotels.

**[ index.html ]**

* file to show the implemented JavaScript code.
* consist of Placeholder to receive input, submit button to execute JavaScript function, class to show weather information, holidays, and hotel information.

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<title>CPT304 Assignment 2</title>

</head>

<body>

<div>Enter the name of area(probably state, province, or city)</div>

<input id="Area" placeholder="Enter Area">

<br>

<button onclick="fn1()" id="submit">SUBMIT</button>

<div class="weather"></div>

<div class="holiday"></div>

<div class="hotels"></div>

<script src="script.js"></script>

</body>

</html>

**[ script.js ]**

* The fn1 function receives and outputs date, temperature, and holiday information based on local information received from the html file.
* Weather and temperature information is added to the weather and temperature class of the html file by storing the information received using openweather api in json format and replacing it in HTML format.
* Holiday information is added to the holiday class of the html file by storing the information received using calendarific api in json format and replacing it in HTML format.
* The fn2 function receives and outputs hotel information based on the information received from the fn1 function.
* Hotel information is added to the hotels class of the html file by storing the information received using Rapidapi's hotels4 api in json format and replacing it in HTML format.

function fn1() {

var area = document.getElementById("Area").value;

const weatherapiurl = `https://api.openweathermap.org/data/2.5/weather?q=${area}&appid=e5eb20914f993f76ee41d0eabe52ab75`;

fetch(weatherapiurl)

.then((data) => data.json())

.then((weather) => generateHTML(weather))

const generateHTML = (data) => {

const html = `

<div class="weather">Current Weather: ${data.weather[0].description}</div>

<div class="temperature">Current Temperature ${Math.round((data.main.temp-273.15)\*100)/100}</div><br>

`

const weatherdiv = document.querySelector(".weather")

weatherdiv.innerHTML = html

const holidayapiurl = `https://calendarific.com/api/v2/holidays?&api\_key=64931719ef8200ea2c7013311cbf0a7717f422ab&country=${data.sys.country}&year=2021`;

fetch(holidayapiurl)

.then((data2) => data2.json())

.then((holiday) => generateHTML2(holiday))

const generateHTML2 = (data2) => {

var html2 = `<div>Choose a Holiday</div><select name="holiday" id="holiday">`

var i = 0;

for (i = 0; i < data2.response.holidays.length; i++) {

html2 += `<option value=${data2.response.holidays[i].date.iso}>${data2.response.holidays[i].name}</option>`;

}

html2 += `</select><br><button onclick="fn2()" id="submit">Submit</button>`

const holidaydiv = document.querySelector(".holiday")

holidaydiv.innerHTML = html2

}

}

}

function fn2() {

var date = document.getElementById("holiday").value;

var area = document.getElementById("Area").value;

var url = 'https://hotels4.p.rapidapi.com/locations/v3/search?q=';

var url2 = '&locale=en\_US&langid=1033&siteid=300000001';

const options = {

method: 'GET',

headers: {

'X-RapidAPI-Key': 'e873399808msh82ec7a7a80aaac6p127486jsn873a8f6dcb79',

'X-RapidAPI-Host': 'hotels4.p.rapidapi.com'

}

};

fetch(url + area + url2, options)

.then((data3) => data3.json())

.then((res) => generateHTML3(res));

const generateHTML3 = (data3) => {

var html3 = `<br><div>List of Hotels Available:</div>`

var i = 0;

for (i = 0; i < data3.sr.length; i++) {

if (data3.sr[i].type == "HOTEL")

html3 += `<li>${data3.sr[i].regionNames.fullName}</br></li>`;

}

const hotelsdiv = document.querySelector(".hotels")

hotelsdiv.innerHTML = html3

}

}