Course: Multidisciplinary Minor
Course code: MDC401
Year: SE   SEM: IV

Experiment No. 5
AIM: Develop a web application to fetch real-time weather data for a city. Use AJAX & a public weather API to retrieve information. Display temperature, humidity, and weather conditions dynamically.
Name: Prem Panchal
Roll Number: 48
Date of Performance:
Date of Submission:

Evaluation

Performance Indicator	Max. Marks	Marks Obtained
Performance	5	
Understanding	5	
Journal work and timely submission.	10	
Total	**20**	

Performance Indicator	Exceed Expectations (EE)	Meet Expectations (ME)	Below Expectations (BE)
Performance	5	3	2
Understanding	5	3	2
Journal work and timely submission.	10	8	4

Checked by

Name of Faculty: Dr. Yogesh Pingle

Aim: Develop a web application to fetch real-time weather data for a city. Use AJAX & a public weather API to retrieve information. Display temperature, humidity, and weather conditions dynamically.

Code:

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Document</title>
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css"
rel="stylesheet">
  </head>
  <body>
    <div class="container mt-4">
      <h1 class="text-center mb-4">Weather App</h1>
      <div class="input-group mb-3">
        <input
          type="text"
          id="cityInput"
          class="form-control"
          placeholder="Enter city name" />
        <button class="btn btn-primary" id="fetchWeatherBtn">
          Get Weather
        </button>
      </div>
      <div id="weatherResult" class="mt-4"></div>
    </div>
    <script>
      document
        .getElementById("fetchWeatherBtn")
        .addEventListener("click", function () {
          const city = document.getElementById("cityInput").value;
          if (city) {
            fetchWeatherData(city);
          } else {
            alert("Please enter a city name.");
          }
        });

      function fetchWeatherData(city) {
        const apiKey = "a47f41453d6b2478d58f856fc588e9bf";
```

```
    const apiUrl =
`https://api.openweathermap.org/data/2.5/weather?q=${city}&appid=${apiKey}&units=met
ric`;

    fetch(apiUrl)
      .then((response) => response.json())
      .then((data) => {
       if (data.cod === 200) {
         displayWeatherData(data);
       } else {
         document.getElementById("weatherResult").innerHTML =
          `<p class="text-danger">City not found. Please try again.</p>`;
       }
      })
      .catch((error) => {
       console.error("Error fetching weather data:", error);
       document.getElementById("weatherResult").innerHTML =
        `<p class="text-danger">An error occurred while fetching data. Please try again
later.</p>`;
      });
    }

    function displayWeatherData(data) {
     const weatherHtml = `
     <h2>${data.name}, ${data.sys.country}</h2>
     <p>Temperature: ${data.main.temp} °C</p>
     <p>Humidity: ${data.main.humidity}%</p>
     <p>Conditions: ${data.weather[0].description}</p>
     `;
     document.getElementById("weatherResult").innerHTML = weatherHtml;
    }
  </script>
 </body>
</html>
```

Output:

Weather App

mira road   Get Weather

Mira Road, IN

Temperature: 27.97 °C

Humidity: 47%

Conditions: clear sky