**Algorithm**

1. Wait for user to enter a city name and click **Search**.
2. Fetch weather data from **OpenWeatherMap API** using the city name.
3. Extract:
   * City name
   * Temperature in Celsius
   * Weather description (like "Clouds", "Rain", etc.)
4. Display this information in <p> tags.
5. Add a button to **toggle between light and dark mode**.

**Pseudocode**

START

WAIT for user to enter city name and click Search

READ value from input field (city name)

CALL weather API with city name and get JSON response

IF city is valid THEN

EXTRACT name, temperature, and description from response

DISPLAY these values on the webpage

ELSE

SHOW "city not found" alert

ON clicking "Toggle Theme" button:

TOGGLE dark/light mode by adding/removing class from body

CHANGE button text accordingly

END  
  
<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<title>Weather App</title>

</head>

<body>

<button id="toggle-theme">Switch to Dark Mode</button>

<form>

<input type="text" id="place" placeholder="Enter city name">

<button type="button" id="button">Search</button>

</form>

<p id="name"></p>

<p id="temp"></p>

<p id="desc"></p>

<script>

function weather() {

var city = document.getElementById('place').value;

var name = document.getElementById('name');

var temp = document.getElementById('temp');

var desc = document.getElementById('desc');

fetch(`https://api.openweathermap.org/data/2.5/weather?q=${city}&units=metric&APPID=40d330e4c1fa734c3a3272bca4cbad3d`)

.then(response => response.json())

.then(data => {

name.innerText = data.name;

temp.innerText = data.main.temp + "°C";

desc.innerText = data.weather[0].main;

})

.catch(() => {

alert("city not found");

});

}

document.getElementById('button').addEventListener('click', weather);

const toggleBtn = document.getElementById('toggle-theme');

toggleBtn.addEventListener('click', () => {

document.body.classList.toggle('dark');

toggleBtn.textContent = document.body.classList.contains('dark')

? 'Switch to Light Mode'

: 'Switch to Dark Mode';

});

</script>

</body>

</html>

**Output**

Bangalore

28°C

Clouds