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Conditional Statements

- Project Idea: Create a simple weather app that suggests activities based on the weather condition (e.g., sunny, rainy, snowy).

- Description: Participants will use conditional statements (if, else if, else) to display different messages depending on the weather condition. This project introduces learners to decision-making in JavaScript based on specific conditions.

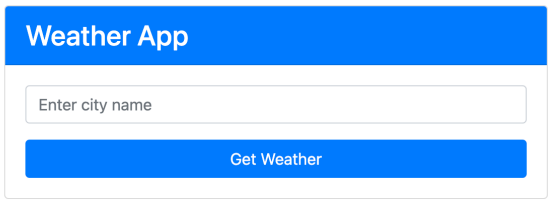
Code:

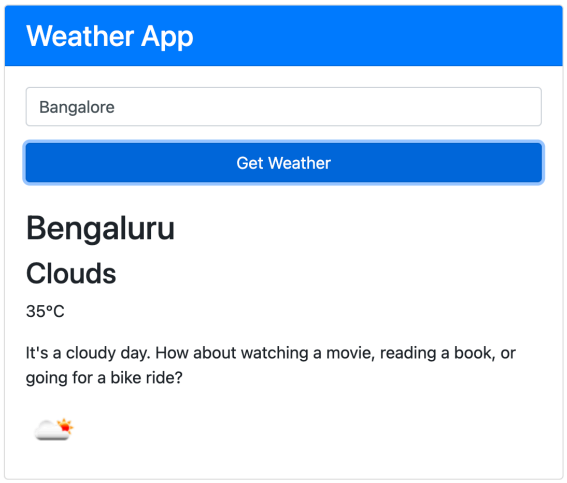
```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Weather App</title>
  <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <div class="container">
    <div class="row justify-content-center mt-5">
      <div class="col-md-6">
        <div class="card">
          <div class="card-header bg-primary text-white">
            <h3 class="mb-0">Weather App</h3>
          </div>
          <div class="card-body">
            <div class="form-group">
              <input type="text" class="form-control" id="city" placeholder="Enter city name">
            </div>
            <button class="btn btn-primary btn-block" id="submit">Get Weather</button>
            <div class="weather-container mt-4" id="weather-container">
              <div class="weather-info">
                <h2 id="location"></h2>
                <h3 id="weather"></h3>
                <p id="temperature"></p>
                <p id="activity"></p>
              </div>
              <img id="icon" src="" alt="Weather Icon">
            </div>
          </div>
        </div>
      </div>
    </div>
  </div>

  <script src="script.js"></script>
</body>
</html>
```

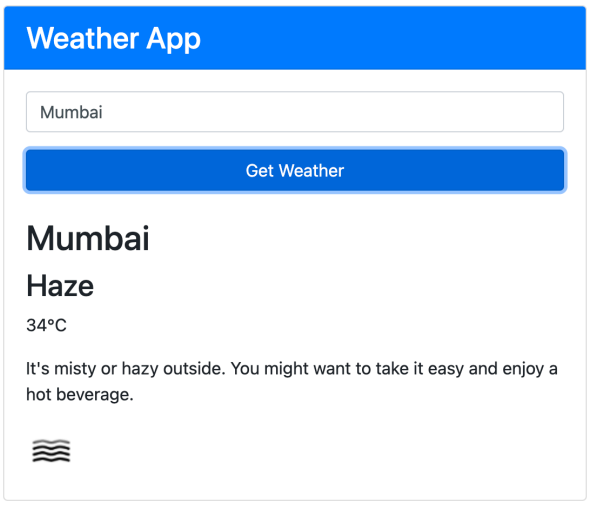
```css
body {
    background-color: #f3e1e1;
}

Comment Code
.card {
    margin-top: 50px;
}

Comment Code
.card-header {
    text-align: center;
}

Comment Code
.weather-container {
    display: none;
    text-align: center;
}

Comment Code
#icon {
    width: 100px;
    margin-top: 20px;
}
```

```javascript
document.addEventListener('DOMContentLoaded', function () {
  const apiKey = '62d7a50e6f4b25ed70de07839c010508';
  const submitBtn = document.getElementById('submit');
  const weatherContainer = document.getElementById('weather-container');
  const weatherIcon = document.getElementById('icon');

  weatherContainer.style.display = 'none';

  submitBtn.addEventListener('click', function () {
    const city = document.getElementById('city').value.trim();
    const apiUrl = `https://api.openweathermap.org/data/2.5/weather?q=${city}&appid=${apiKey}&units=metric`;

    fetch(apiUrl)
      .then(response => response.json())
      .then(data => {
        const location = data.name;
        const weather = data.weather[0].main;
        const temperature = Math.round(data.main.temp);
        const icon = `http://openweathermap.org/img/w/${data.weather[0].icon}.png`;
        let activity;

        if (weather === 'Clear') {
          activity = "It's a sunny day! You can go for a walk, have a picnic, or play outdoor sports.";
        } else if (weather === 'Clouds') {
          activity = "It's a cloudy day. How about watching a movie, reading a book, or going for a bike ride?";
        } else if (weather === 'Rain') {
          activity = "It's raining. You can stay indoors and enjoy a warm cup of tea, watch a movie, or play board games.";
        } else if (weather === 'Drizzle') {
          activity = "It's drizzling. You might want to take an umbrella if you go out, or enjoy a cozy indoor activity.";
        } else if (weather === 'Thunderstorm') {
          activity = "There's a thunderstorm outside. It's best to stay indoors, read a book, or listen to some calming music.";
        } else if (weather === 'Snow') {
          activity = "It's snowing. You can build a snowman, have a snowball fight, or stay indoors and enjoy a movie.";
        } else if (weather === 'Mist' || weather === 'Haze') {
          activity = "It's misty or hazy outside. You might want to take it easy and enjoy a hot beverage.";
        } else if (weather === 'Fog') {
          activity = "It's foggy outside. Be cautious while driving and consider staying indoors.";
        } else if (weather === 'Smoke' || weather === 'Dust' || weather === 'Sand') {
          activity = "There's smoke, dust, or sand in the air. It's best to stay indoors and avoid outdoor activities.";
        } else if (weather === 'Tornado') {
          activity = "There's a tornado warning! Seek shelter immediately and stay indoors.";
        } else if (weather === 'Squall') {
          activity = "There's a squall warning! Seek shelter immediately and stay indoors.";
        } else {
          activity = "Enjoy your day!";
        }

        document.getElementById('location').textContent = location;
        document.getElementById('weather').textContent = weather;
        document.getElementById('temperature').textContent = `${temperature}°C`;
        weatherIcon.setAttribute('src', icon);
        document.getElementById('activity').textContent = activity;

        weatherContainer.style.display = 'block';
      })
      .catch(error => {
        console.log('Error fetching weather data', error);
        alert('Error fetching weather data. Please try again.');
      });
  });
});
```

Output:


Weather App
Enter city name
Get Weather


Weather App
Bangalore
Get Weather
Bengaluru
Clouds
35°C
It's a cloudy day. How about watching a movie, reading a book, or going for a bike ride?


Weather App
Mumbai
Get Weather
Mumbai
Haze
34°C
It's misty or hazy outside. You might want to take it easy and enjoy a hot beverage.

Javascript description in the code:

In this JavaScript code it fetches weather data from the OpenWeatherMap API based on the user's input city and displays the weather information along with a suggested activity.
1. It waits for the DOM content to be loaded.
2. It defines an event listener for the submit button.
3. When the submit button is clicked, it retrieves the value of the city input, constructs the API URL, and makes a fetch request to the OpenWeatherMap API.
4. It then processes the response, extracting the relevant weather information such as location.