Rising Waters: A Machine Learning Approach to Flood Prediction

CHAPTER-12

12.1 SOURCE CODE:

Home.html:

```html
<!DOCTYPE html>
<html>
<head>
    <title>Severe Flood Prediction</title>
    <style>
        body {
            margin: 0;
            font-family: Arial, sans-serif;
            background: linear-gradient(to right, #1e3c72, #2a5298);
            color: white;
            text-align: center;
        }

        .container {
            margin-top: 180px;
        }

        h1 {
            font-size: 40px;
        }

        button {
            padding: 12px 30px;
            font-size: 16px;
            border: none;
            border-radius: 5px;
            background-color: #ffffff;
            color: #2a5298;
            cursor: pointer;
        }

        button:hover {
            background-color: #ddd;
        }
    </style>
</head>
<body>
```

```
<div class="container">
    <h1>Severe Flood Prediction System</h1>
    <br>
    <a href="/predict_page">
        <button>Start Prediction</button>
    </a>
</div>

</body>
</html>
```

Predict.html:

```
<!DOCTYPE html>
<html>
<head>
    <title>Enter Weather Details</title>

    <style>
        body {
            margin: 0;
            font-family: Arial, sans-serif;
            background: #f4f6f9;
        }

        .form-container {
            width: 450px;
            margin: 80px auto;
            background: white;
            padding: 30px;
            border-radius: 10px;
            box-shadow: 0px 0px 15px rgba(0,0,0,0.2);
        }

        h2 {
            text-align: center;
            margin-bottom: 25px;
            color: #2a5298;
        }

        label {
```
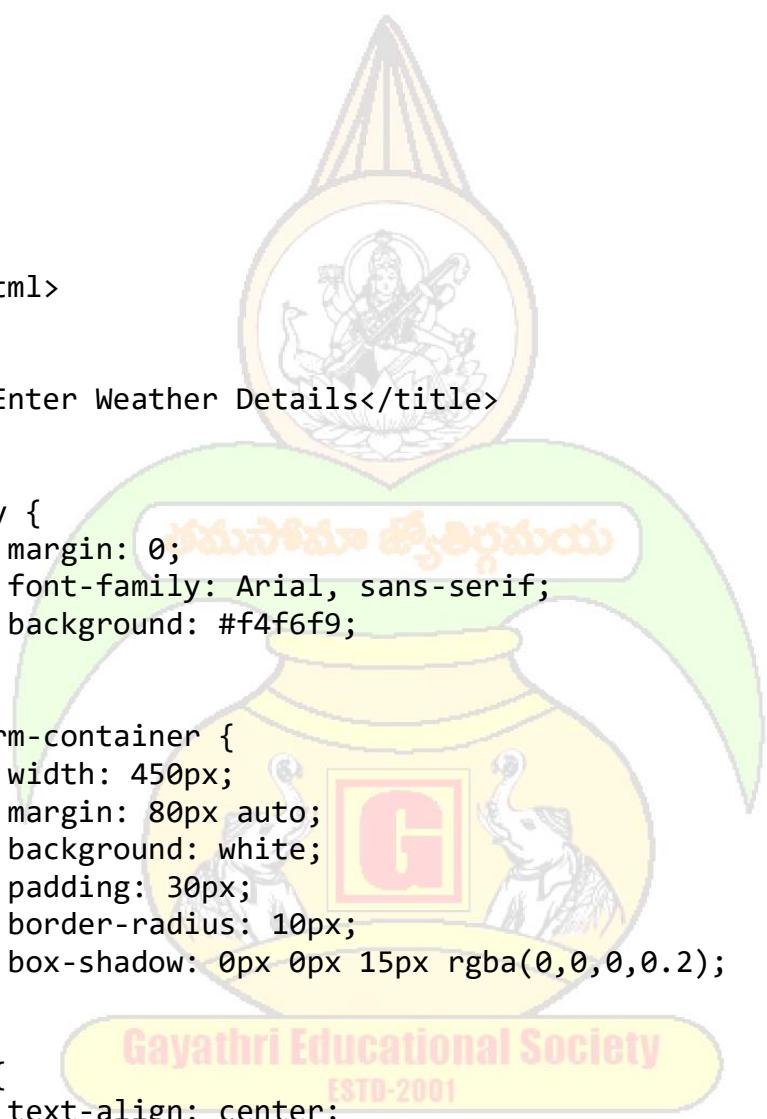
```css
        font-weight: bold;
    }

    input {
        width: 100%;
        padding: 8px;
        margin: 6px 0 15px 0;
        border-radius: 5px;
        border: 1px solid #ccc;
    }

    button {
        width: 100%;
        padding: 10px;
        border: none;
        background-color: #2a5298;
        color: white;
        font-size: 16px;
        border-radius: 5px;
        cursor: pointer;
    }

    button:hover {
        background-color: #1e3c72;
    }

    .back {
        margin-top: 15px;
        text-align: center;
    }

    .back a {
        text-decoration: none;
        color: #2a5298;
    }

    </style>
</head>

<body>

<div class="form-container">
```

```html
<h2>Enter Weather Details</h2>

<form action="/predict" method="POST">

    <label>Cloud Cover (%)</label>
    <input type="number" name="cloud_cover" step="any" required>

    <label>Annual Rainfall (mm)</label>
    <input type="number" name="annual" step="any" required>

    <label>Jan-Feb Rainfall (mm)</label>
    <input type="number" name="jan_feb" step="any" required>

    <label>Mar-May Rainfall (mm)</label>
    <input type="number" name="mar_may" step="any" required>

    <label>Jun-Sep Rainfall (mm)</label>
    <input type="number" name="jun_sep" step="any" required>

    <button type="submit">Predict Flood</button>

</form>

<div class="back">
    <a href="/">← Back to Home</a>
</div>

</div>

</body>
</html>
```

Result.html:

```html
<!DOCTYPE html>
<html>
<head>
    <title>Prediction Result</title>

    <style>
        body {
            margin: 0;
            font-family: Arial, sans-serif;
```

```
        background: #f4f6f9;
        text-align: center;
    }

    .result-box {
        width: 500px;
        margin: 150px auto;
        padding: 40px;
        border-radius: 10px;
        box-shadow: 0px 0px 15px rgba(0,0,0,0.2);
        background-color: white;
    }

    h1 {
        font-size: 28px;
    }

    .btn {
        margin-top: 20px;
        padding: 10px 25px;
        border: none;
        background-color: #2a5298;
        color: white;
        font-size: 15px;
        border-radius: 5px;
        cursor: pointer;
    }

    .btn:hover {
        background-color: #1e3c72;
    }

    </style>
</head>

<body>

<div class="result-box">

    <h1 style="color: {{color}};">
        {{prediction}}
    </h1>
```

```
<a href="/predict_page">
    <button class="btn">Predict Again</button>
</a>

</div>

</body>
</html>
```