A close up of a logo

Description automatically generated

**CSS Styling**

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**LAB MANUAL**

**Creating Interactive Card Components with CSS Effects**

**Objective:**

The objective of this activity is to help learners understand how to enhance web page interactivity and visual appeal by creating card components styled and animated using CSS. Participants will learn to apply CSS properties such as transitions, transforms, shadows, and hover effects to produce engaging, responsive card designs. By the end of the activity, learners will be able to craft visually dynamic card components that respond to user interaction smoothly.

**Equipment Required:**

* A computer with a text editor (e.g., VS Code, Sublime Text, Notepad++)
* A modern web browser (Chrome, Firefox, Edge, etc.) with developer tools

**Prerequisites:**

* Basic understanding of HTML structure and tags
* Familiarity with fundamental CSS concepts such as selectors, properties, and values
* Knowledge of saving .html files and linking CSS to HTML

**Problem Statement:**

In this activity, you are tasked with creating one or more interactive card components that showcase content such as an image, title, description, and a call-to-action button. The cards should incorporate CSS effects like smooth hover transitions, scale transformations, shadows, and color changes to provide an engaging user experience. You will practice writing both the HTML structure for cards and the CSS styling that makes them interactive and visually appealing.

**Procedure:**

1. Create a new file named ***interactive\_cards.html, interactive\_cards.css, and interactive\_cards.js***.
2. Write the basic HTML structure including <head> and <body>.
3. Inside the <body>, create one or more card components using HTML elements such as <div>, <img>, <h3>, <p>, and <button>.
4. Add a <style> block in the <head> or link an external CSS file.
5. Use CSS to style the card components including layout, fonts, colors, and sizing.
6. Add CSS effects such as hover transitions, box shadows, and scaling using :hover and transition properties.
7. Save the file and open it in a browser to test the interactive effects on mouse hover.

**Code**

***interactive\_cards.html***

<!--

    Activity 1: Creating Interactive Card Components with CSS Effects

    Author: [Your Name]

    Description: HTML structure for interactive card components

--> <!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Interactive Cards</title>

  <style>

    body {

      font-family: Arial, sans-serif;

      background: #f3f3f3;

      display: flex;

      justify-content: center;

      align-items: center;

      min-height: 100vh;

    }

    .card-container {

      display: flex;

      gap: 20px;

      flex-wrap: wrap;

    }

    .card {

      width: 250px;

      height: 320px;

      perspective: 1000px;

      cursor: pointer;

    }

    .card-inner {

      position: relative;

      width: 100%;

      height: 100%;

      text-align: center;

      transition: transform 0.8s;

      transform-style: preserve-3d;

    }

    .card:hover .card-inner {

      transform: rotateY(180deg);

    }

    .card-front, .card-back {

      position: absolute;

      width: 100%;

      height: 100%;

      backface-visibility: hidden;

      border-radius: 15px;

      overflow: hidden;

      box-shadow: 0 8px 16px rgba(0,0,0,0.2);

    }

    .card-front {

      background: #fff;

      display: flex;

      flex-direction: column;

      justify-content: center;

      align-items: center;

      transition: transform 0.3s;

    }

    .card-front img {

      width: 100%;

      height: 180px;

      object-fit: cover;

    }

    .card-front h3 {

      margin: 10px 0;

      color: #333;

    }

    .card-front p {

      padding: 0 10px;

      font-size: 14px;

      color: #555;

    }

    .card-back {

      background: linear-gradient(135deg, #6a11cb, #2575fc);

      color: white;

      transform: rotateY(180deg);

      display: flex;

      justify-content: center;

      align-items: center;

      padding: 20px;

      font-size: 18px;

    }

  </style>

</head>

<body>

  <div class="card-container">

    <div class="card">

      <div class="card-inner">

        <div class="card-front">

          <img src="https://images.unsplash.com/photo-1507525428034-b723cf961d3e?auto=format&fit=crop&w=400&q=80" alt="Beach">

          <h3>Card One</h3>

          <p>Hover me to see more details!</p>

        </div>

        <div class="card-back">

          <p>This is the back side of the card. 🎉</p>

        </div>

      </div>

    </div>

    <div class="card">

      <div class="card-inner">

        <div class="card-front">

          <img src="https://images.unsplash.com/photo-1469474968028-56623f02e42e?auto=format&fit=crop&w=400&q=80" alt="Mountain">

          <h3>Card Two</h3>

          <p>Flip me for surprise info!</p>

        </div>

        <div class="card-back">

          <p>Here’s hidden content 😎</p>

        </div>

      </div>

    </div>

    <div class="card">

      <div class="card-inner">

        <div class="card-front">

          <img src="https://images.unsplash.com/photo-1467269204594-9661b134dd2b?auto=format&fit=crop&w=400&q=80" alt="Cityscape">

          <h3>Card Three</h3>

          <p>Cool CSS animations inside!</p>

        </div>

        <div class="card-back">

          <p>✨ Interactive and stylish!</p>

        </div>

      </div>

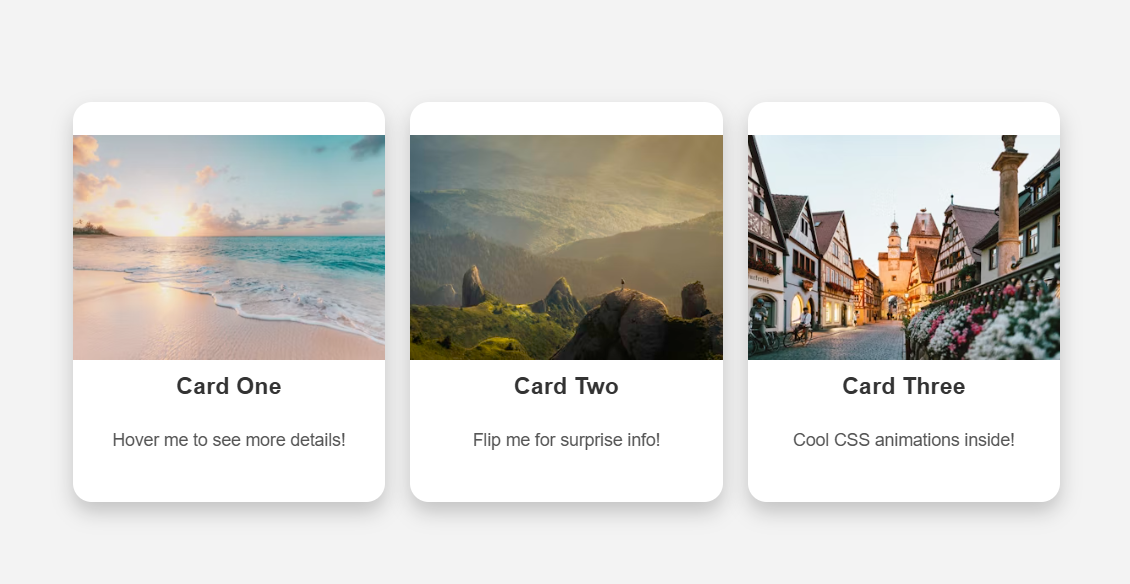
    </div>

  </div>

</body>

</html>

**Output**

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