**2D transformations** operate on the x and y axes and are applied using the transform property.

**3D transformations** add depth by incorporating the z-axis. These are also applied using the transform property, often combined with perspective settings.

**<!DOCTYPE html>**

**<html lang="en">**

**<head>**

**<meta charset="UTF-8">**

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

**<title>2D and 3D Transforms</title>**

**<link rel="stylesheet" href="styles.css">**

**</head>**

**<body>**

**<div class="container">**

**<div class="box2d">2D Transform</div>**

**<div class="box3d">3D Transform</div>**

**</div>**

**</body>**

**</html>**

**Styles.css**

**body {**

**font-family: Arial, sans-serif;**

**display: flex;**

**justify-content: center;**

**align-items: center;**

**height: 100vh;**

**margin: 0;**

**background-color: #f4f4f4;**

**}**

**.container {**

**display: flex;**

**gap: 50px;**

**}**

**.box2d, .box3d {**

**width: 150px;**

**height: 150px;**

**display: flex;**

**justify-content: center;**

**align-items: center;**

**color: white;**

**font-weight: bold;**

**text-align: center;**

**cursor: pointer;**

**}**

**.box2d {**

**background-color: #3498db;**

**transition: transform 0.5s ease;**

**}**

**.box2d:hover {**

**transform: rotate(45deg) scale(1.2);**

**}**

**.box3d {**

**background-color: #e74c3c;**

**perspective: 500px;**

**transition: transform 0.5s ease;**

**}**

**.box3d:hover {**

**transform: rotateY(45deg) rotateX(25deg) translateZ(20px);**

**}**