

# Training Day 12 Report

10 July 2025

## 1. Z-INDEX & STACKING ORDER

### Definition:

z-index controls the stacking order of elements along the Z-axis (depth), which means how elements appear in front of or behind other elements.

### Rules:

- Only works on positioned elements (position: relative, absolute, fixed, or sticky).
- Higher z-index = Closer to the viewer (appears on top).
- Lower z-index = Farther away (appears behind).

### Example:

```
<div style="position: absolute; top: 50px; left: 50px; width: 100px; height: 100px; background-color: blue; z-index: 1;"></div>
```

```
<div style="position: absolute; top: 70px; left: 70px; width: 100px; height: 100px; background-color: red; z-index: 2;"></div>
```

```
<div style="position: absolute; top: 90px; left: 90px; width: 20px; height: 20px; background-color: black; z-index: 3;"></div>
```

- Red appears on top of blue.
- Pen (black) appears on top of both.

Always use z-index wisely in layers like modals, tooltips, menus, etc.

## 2. BORDER

### Definition:

The border property creates a visible line around an element. It is commonly used to:

Separate sections

Highlight focus

Design cards or buttons

Syntax:

```
border: [width] [style] [color];
```

Or use individually:

```
border-width: 2px;
```

```
border-style: solid;
```

```
border-color: red;
```

**Example:**

```
<div style="border: 2px dashed green; padding: 10px;">
```

This box has a dashed green border.

```
</div>
```

Rounded Corners:

Use border-radius:

```
border-radius: 10px;
```

**Example:**

```
<div style="border: 2px solid blue; border-radius: 15px; padding: 10px;">
```

Rounded corner box.

```
</div>
```

\* Use border-radius on cards, buttons, inputs for modern UI look.

## 3. BOX-SHADOW

**Definition:**

Adds shadow effect to boxes. Creates depth, looks like an element is elevated.

**Syntax:**

- box-shadow: h-offset v-offset blur-radius spread-radius color inset;
- h-offset: Horizontal shadow position (+ = right, - = left)
- v-offset: Vertical shadow position (+ = down, - = up)
- blur-radius: How soft/blurred the shadow is (0 = sharp)
- spread-radius: Size of the shadow
- color: Color of the shadow
- inset: Optional; creates inner shadow

**Example:**

```
<div style="width: 100px; height: 100px; background-color: white; box-shadow: 5px 5px 15px 0px rgba(0,0,0,0.3);">Shadowed Box</div>
```

Use box-shadow to improve card depth, hover effects, or make buttons pop.

## 4. BACKGROUND

Used to style background of elements:

- Includes color, images, size, repeat behavior, position, etc.
- background-color

Sets the background color.

```
background-color: lightblue;
```

## **background-image**

Used to insert an image as background.

background-image: url("image.jpg");

## **background-repeat**

Controls repetition of background image:

- repeat: repeats both X and Y
- repeat-x: repeats horizontally
- repeat-y: repeats vertically
- no-repeat: doesn't repeat

background-repeat: no-repeat;

## **background-position**

Defines starting point of the background image.

### **Examples:**

background-position: center;

background-position: top right;

## **background-attachment**

Controls scroll behavior of background image:

- scroll: default, scrolls with page
- fixed: stays in place while page scrolls
- local: scrolls with the element content

### **Example:**

background-attachment: fixed;

### **-background-size**

Controls scaling of background image.

- cover: cover the whole box
- contain: fit inside box
- 100px 200px: custom size

### **Example:**

background-size: cover;