Carousel Documentation

Overview

This project is a simple **image slider (carousel)** built using **HTML** and **CSS**. It allows users to navigate through multiple images using radio buttons and styled dots.

Project Structure

```
/slider-project
├──  index.html        # Main HTML file
├──  style.css         # CSS for styling
├──  1.jpg             # Image 1
├──  2.jpg             # Image 2
├──  3.jpg             # Image 3
├──  4.jpg             # Image 4
```

☐index.html (HTML Structure)

Explanation

HTML Structure

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Carousel</title>
    <link rel="stylesheet" href="./style.css">
</head>
<body>
```

- `<!DOCTYPE html>` → Declares an HTML5 document.

- `<meta charset="UTF-8">` → Supports special characters (like emojis, symbols, etc.).

- `<meta name="viewport"`

  `content="width=device-width, initial-scale=1.0">`

  → Ensures responsive design for different screen sizes.

- `<link rel="stylesheet" href="./style.css">` → Links the external CSS file.

The Slider Container

```
<div class="slider">
```

- This `<div>` acts as a **container** for the image slider.
- It will be **centered** using CSS.

Hidden Radio Buttons

```
<input type="radio" name="slide" id="img1" checked>
<input type="radio" name="slide" id="img2">
<input type="radio" name="slide" id="img3">
<input type="radio" name="slide" id="img4">
```

- These **radio buttons control which image is displayed**.
- **name="slide"** → Ensures only **one** radio button is selected at a time.
- **id="img1"** (etc.) → Used for linking to **dots** (navigation).
- **checked** on img1 → The **first image** is selected by default.

Images

```
<img src="./1.jpg" class="m1" alt="img1">
<img src="./2.jpg" class="m2" alt="img2">
<img src="./3.jpg" class="m3" alt="img3">
```

```
<img src="./4.jpg" class="m4" alt="img4">
```

- These `<img>` elements display **four images**.

- The **class names (m1, m2, etc.)** are used in CSS for sliding.

Images

```
<div class="dots">
    <label for="img1"></label>
    <label for="img2"></label>
    <label for="img3"></label>
    <label for="img4"></label>
</div>
```

- `<label>` elements act as navigation dots.

- `for="img1"` (etc.) → Clicking a dot selects the corresponding radio button, changing the image.

▢style.css (CSS Styling)

Explanation

Global Styles (* {})

```
* {
    box-sizing: border-box;
    margin: 0;
    padding: 0;
}
```

- `box-sizing: border-box;` → Ensures padding and borders are included in the total width/height of elements.

- `margin: 0; padding: 0;` → Removes default spacing.

Body (body {})

```css
body {
    height: 100vh;
    display: flex;
    justify-content: center;
    align-items: center;
    background: rgb(25,12,41);
}
```

- `height: 100vh;` → Sets the body to **full screen height**.
- `display: flex;` → Centers the content **horizontally and vertically**.
- `background: rgb(25,12,41);` → Sets a **dark purple background**.

Slider (.slider {})

```css
.slider {
    position: relative;
    width: 60%;
    overflow: hidden;
}
```

- `position: relative;` → Used for positioning inner elements.
- `width: 60%;` → The slider takes **60% of the screen width**.
- `overflow: hidden;` → Hides overflowing images (so only one is visible at a time).

Images (.images {})

```css
.images {
    display: flex;
    width: 400%;
}
```

- `display: flex;` → Places images **side-by-side in a row**.
- `width: 400%;` → Since there are **4 images**, the width is **4 times the slider width**.

Images (.images img{})

```
.images img {
    height: 400px;
    width: 100%;
    transition: all 0.15s ease;}
```

- `height: 400px;` → Each image is **400px tall**.
- `width: 100%;` → Each image takes the full **slider width**.
- `transition: all 0.15s ease;` → Smooth animation when sliding.

Radio Button (.images input {})

```
.images input {
    display: none;
}
```

- Hides radio buttons (`input[type="radio"]`), as they control the slider.

Navigation Dots (.dots {})

```
.dots {
    display: flex;
    justify-content: center;
    margin: 5px;
}
.dots label {
    height: 20px;
    width: 20px;
    border-radius: 50%;
    border: solid #fff 3px;
```

```
    cursor: pointer;
    transition: all 0.15s ease;
    margin: 5px;
}
.dots label:hover {background: #fff;}
```

- `display: flex;` → Centers dots horizontally.
- `border-radius: 50%;` → Makes dots **circular**.
- `border: solid #fff 3px;` → White border for dots.
- `cursor: pointer;` → Allows clicking on dots.
- `Hover effect:` Changes background color on hover.

Sliding Effect (#img1:checked ~ .m1 {})

```
#img1:checked ~ .m1 {
    margin-left: 0;
}
#img2:checked ~ .m2 {
    margin-left: -100%;
}
#img3:checked ~ .m3 {
    margin-left: -200%;
}
#img4:checked ~ .m4 {
    margin-left: -300%;
}
```

(The actual Sliding Mechanism)

- **Each image has a corresponding radio button (#img1, #img2, etc.).**
- When a radio button is **checked**, it shifts the `.images` container **horizontally** by changing its `margin-left`:
    - `#img1:checked ~ .m1 { margin-left: 0; }` → Show **first image**.
    - `#img2:checked ~ .m2 { margin-left: -100%; }` → Move to **second image**.

- #img3:checked ~ .m3 { margin-left: -200%; } → Move to **third image**.
- #img4:checked ~ .m4 { margin-left: -300%; } → Move to **fourth image**.

This means **clicking a dot (radio button) slides the images left/right**.

Now you have a fully functional Carousel! Keep experimenting and improving your project. Add some more styles to give this project your personal touch.

Features of This Slider

✔ Pure HTML & CSS (No JavaScript needed).
✔ Lightweight & Responsive.
✔ Uses radio buttons to track the selected image.
✔ Smooth image transition (using CSS `margin-left`).
✔ Dots for easy navigation.

Download the project into your system and get your hands dirty.