Image slider

Problem statement

The goal is to develop an efficient and visually appealing image slider for a web application. The image slider should provide a seamless user experience by enabling users to view a sequence of images with smooth transitions. The key functionalities include

the technique used to solve the problem-

1. HTML Structure
Container: The <div class="slide-container"> is the main container for the image slider.
Slides: Inside the container, the <div class="slides"> holds the images that will be part of the slider
Navigation Buttons- The span.next and span.prev are used for navigation between the images
Dots for Navigation-The <div class="dotsContainer"> contains dots that represent each slide and allow the user to navigate directly to a specific image.

2. CSS Styling
Container Styling -The .slide-container class sets the size and border for the slider container and applies a shadow effect
Image Styling: The images are set to fill the container using width: 100% and height 100% with object-fit: cover

•**Positioning**: The images are positioned absolutely to stack them on top of each other. Only one image is visible at a time

•**Animation**: Animations (@keyframes) are defined for sliding images in and out both for the next and previous actions

3. JavaScript Functionality

an image slider, allowing images to transition automatically or manually by clicking on navigation buttons or indicators (dots). Here's a breakdown of the key components and their functionalities

1.Variables and Element Selection

slideImages-An array of all image elements inside the slider
next and prev- References to the "next" (>) and "previous" (<) navigation buttons.
dots: An array of the dots used as indicators for the current slide.
counter: Tracks the index of the currently active image.

2.Next and Previous Button Functionality
slideNext Function:

    Animates the current image off the screen to the left
    Updates counter to the next image's index (or loops back to the first image if at the end).
    Animates the new current image onto the screen from the right.
    Updates the dots to reflect the current active image

slidePrev Function

Animates the current image off the screen to the right.
Updates counter to the previous image's index (or loops to the last image if at the beginning).
Animates the new current image onto the screen from the left
Updates the dots to reflect the current active image

3. Auto-Sliding Functionality

autoSliding Function:

Automatically switches to the next image every 3 seconds using setInterval
Calls the slideNext function to handle the transition
Stops auto-sliding when the mouse hovers over the slider (mouseover event) and resumes when the mouse leaves (mouseout event)

4. Indicator (Dot) Functionality

indicators Function
  Updates the dots to reflect the current active image by removing the "active" class from all dots and adding it to the dot corresponding to the current image.

switchImage Function
Allows the user to click on a dot to switch directly to the corresponding image. Depending on the relative position of the selected image, it uses the appropriate animation (next1, next2, prev1, prev2) to smoothly transition to the chosen image. Updates the counter and calls the indicators function to update the active dot.

5. Animations
@keyframes define the animations for sliding images in and out:
 •**Next1-** Moves the current image off-screen to the left.
 •**Next2-**Moves the next image onto the screen from the right.
 •**prev1-** Moves the current image off-screen to the right.
 •**Prev2-** Moves the previous image onto the screen from the left.