

Web Scripting 1

Assignment: 03 – Create an Image Spinner

Course Value: 5%

Due Date: Before the start of the next class (day 04)

Assignment Description:

Create an image spinner that can be controlled by previous and next buttons.

Instructions:

1. Optional
 - a. For this assignment, you have the option to work on it individually or with a group
 - i. If you decide to work in a group, you are free to choose your own group
 - ii. Maximum group size is 3 students
2. Open the **ws1-a-03-start** folder located in the **ws1-day-03** folder in your text editor of choice
 - a. All the HTML and CSS have been completed for you
 - b. All you need to do is create the JavaScript code and attach it to the "index.html" file
3. Create a "script.js" file and place it inside the "scripts" folder
4. Attach the "script.js" to the "index.html" file
5. Write the JavaScript code that does the following:
 - a. When the user clicks the "< Turn" button perform the following:
 - i. Change the bike image to the next image
 - ii. If the bike image is the last image, go back to the first image
 - b. When the user clicks the "Turn >" button perform the following:
 - i. Change the bike image to the previous image
 - ii. If the bike image is the first image, go to the last image
6. A video demo of a complete version of this assignment can be found in the **ws1-day-03** folder:
 - a. ws1-a-03-demo.mp4
7. ***** IMPORTANT *****
 - a. If you are lost on how to do the above, or you just need a bit of help, I have created an optional step by step set of instructions for this assignment
 - i. Look in the "day-03" folder for the PDF:
 1. **ws1-a-03-step-by-step-instructions.pdf**
 - ii. This PDF will walk you through writing all the code necessary for this assignment as well explain what the code is doing and how it all works. Give it a read if you are struggling
 - iii. You are not obligated to follow these instructions. If you want a small challenge, feel free to write your own code
8. When the above steps are complete do either of the following:
 - a. If you finish during the afternoon lab, show your completed assignment for marking to your instructor or to the lab instructor
 - b. If you finish outside of class time, then go to The Learning Hub and find the drop box for Assignment 03
 - i. Zip up your code
 1. Make sure to include the HTML, CSS and the JavaScript files

- ii. Upload your code to the drop box
- iii. In your submission, let your instructor know who all the members of your team were

Bonus Assignments

***** IMPORTANT ***** The following bonus assignments are completely optional. I have only provided them as an **OPTIONAL** extra challenge for those who wish to flex their JavaScript muscles or who found the base assignment a little too easy.

Bonus 1 – Animate the Image Rotation (Mid-Level)

- Instead of having to click the button repeatedly to move the images forward or backward, try to write the JavaScript code that will repeatedly move the images forward or backward while the user has clicked down (mousedown) on the buttons
- The bike should stop rotating when the user un-clicks the button (mouseup) or if the user moves their mouse away from either button (mouseleave)
- Starter files are located in the “a-02-start-bonus-01” folder
- See the demo video for this bonus assignment in the day-02 folder:
 - o ws1-a-03-demo-bonus-01.mp4

Hint:

- Investigate the built-in JavaScript setInterval() function that calls a functions repeatedly at a “set interval”

Bonus 2 – Animate the image Rotation on Mouse Move (Mid-Level to Advanced)

- Instead of using buttons to rotate the bike image, use the movement of the mouse
- The bike image should rotate clockwise when the user presses their mouse down and moves the mouse to the left (click and drag to the left)
- The bike image should rotate counter-clockwise when the user presses their mouse down and moves the mouse to the right (click and drag to the right)
- The image should not rotate if the mouse is not pressed down (left click and hold)
- The image should stop rotating if the user moves their mouse out of the “slide-container” div

Hint:

- Investigate passing in an “event” object into your mouse event handlers
 - o Use the event object to capture the mouse location
 - This is a property on the event object
- You will need event handlers for “mousedown”, “mouseup”, “mousemove” and “mouseleave”
- You may need to prevent browser’s default behaviour of the “mousedown” on images
- See the demo video for this bonus assignment in the day-02 folder:
 - o ws1-a-03-demo-bonus-02.mp4

Notes:

- Email me at Michael_Whyte@bcit.ca or contact me on Slack if you have any questions
- View the included “ws1-a-03-demo.mp4” (found in the “ws1-day-03” folder) to see a demonstration of how this application should run

Marking Criteria:

This project will be marked out of 5 and will be marked based on the following criteria:

- | | |
|-------------------------------------|---------|
| 1) All Instructions followed | 1 mark |
| 2) All Technical Specifications Met | 4 marks |

Total: 5 marks

Late Penalty

- Late submissions will receive a **2-mark penalty**. If you are late, the maximum mark you can receive is 3 / 5 on this assignment