

Exercise 6: DOM I

Activity: DOM Manipulation and Traversal (80 minutes)

Upload a html file named USPnumber1.USPnumber2.html.

Instructions:

Split into pairs for pair programming. You'll be working together on this activity to practice DOM manipulation and traversal techniques.

Open your preferred code editor or browser-based environments, such as JSFiddle or CodePen.

Start with the following simple HTML structure that includes a variety of elements such as headings, paragraphs, lists, images, and buttons (Change the HTML using only JavaScript):

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>DOM Manipulation Activity</title>
</head>
<body>
  <h1>DOM Manipulation Activity</h1>
  <p>Paragraph 1</p>
  <p>Paragraph 2</p>
  <ul>
    <li>Item 1</li>
    <li>Item 2</li>
    <li>Item 3</li>
  </ul>
  
  <button id="taskButton">Perform Task</button>
</body>
</html>
```

Your tasks for this activity are:

Change the text of the first paragraph to "New Paragraph 1".

Add a new list item with the text "Item 4" at the end of the unordered list.

Change the src attribute of the image to another URL (e.g., <https://via.placeholder.com/200>).

Set the background color of the second paragraph to yellow.

Add an event listener to the first paragraph that changes its text to "Clicked!" when clicked.

Add an event listener to the button that, when clicked, performs all the previous tasks in sequence (1, 2, 3, 4, and 5).

5. Work together to complete these tasks using JavaScript DOM manipulation methods, such as `getElementById`, `querySelector`, `createElement`, `appendChild`, `setAttribute`, `style`, and `addEventListener`.

6. As you work on the activity, feel free to ask your peers or teaching assistant for help or clarification if needed.

7. Once you have completed the activity, take some time to compare your solutions with other pairs. Discuss any challenges you encountered or alternative approaches you discovered.

Remember, the goal of this activity is to practice your DOM manipulation and traversal skills while working collaboratively. Enjoy and have fun!