Exercise 1 - DOM Traversal and Manipulation

Objective: Learn and practice various techniques to traverse and manipulate the DOM using pure JavaScript.

Instructions:

1. You are given the attached HTML document.

2. **Selecting a Specific List Item**:

- Use `document.querySelector('li.start-here')` to select the `<li>` element with a class of "start-here".
- Store this selected element in the `myLi` variable.

3. **Changing Text Content**:

   - **Assignment 1**:
     - Modify the text content of the selected `myLi` element.
     - Use `myLi.textContent` to update the text from "title 2" to "main title".

4. **Adding a New Sub Title**:

   - **Assignment 2**:
     - Traverse to the next sibling of the `myLi` element using `myLi.nextElementSibling` and store it in the `myLiNextSibling` variable.
     - Select the child unordered list (`<ul>`) of `myLiNextSibling` using `myLiNextSibling.firstElementChild` and store it in the `myUl` variable.
     - Create a new list item (`<li>`) element using `document.createElement('li')` and store it in the `newSubTitle` variable.
     - Create a new text node with content "sub title 4" using `document.createTextNode('sub title 4')` and store it in `subTitleText`.
     - Append the text node to the newly created list item using `newSubTitle.appendChild(subTitleText)`.
     - Finally, append this new list item to the `myUl` element using `myUl.appendChild(newSubTitle)`, thereby adding a new subtitle to the list.

5. **Removing the Last Title**:

- o **Assignment 3**:
    - Navigate to the parent `<ul>` of the `myLi` element using `myLi.parentElement` and store it in the `myLiParent` variable.
    - Use `myLiParent.lastElementChild.remove()` to remove the last child list item (`<li>`) of this parent unordered list.

6. **Updating the Document's Title**:

- o **Assignment 4**:
    - Access the document's `<head>` and store it in the `head` variable.
    - Access the last child element of the `<head>` (which is the `<title>` element) and store it in the `title` variable. Alternatively, the title element can be directly accessed using `document.head.querySelector('title')`.
    - Note: The code to update the title's text content is commented out in the given solution. To modify the title text, you'd use:
      ```
      title.textContent = 'DOM Master';
      ```

7. **Updating Paragraph Content**:

- o **Assignment 5**:
    - Traverse to the `<div>` that comes after the `myLiParent` using `myLiParent.nextElementSibling` and store it in the `div` variable.
    - Access the first child of the `div` (which is a `<p>` element) and store it in the `p` variable.
    - Use `p.textContent` to update the text content of the paragraph to "Now I know how to traverse the DOM :D".