

JavaScript Challenge 1 - Dynamic Filtering of List Items

Objective

In this exercise, you will be practicing event delegation by implementing dynamic filtering of list items based on selected categories. You are given a set of categories and corresponding items, and your goal is to display the items based on the category clicked by the user. You will be provided with the HTML and CSS code along with a demonstration video of how the final solution should work.

[Demo video of the solution](#)

Instructions

1. **Understand the Structure:** Review the provided HTML and CSS files to understand the structure of the page. Identify the container that holds the categories and the container for the items.
2. Here is the data object you will need for this exercise:

```
const data = {  
  fruits: ['Apple', 'Banana', 'Cherry'],  
  vegetables: ['Carrot', 'Broccoli', 'Lettuce'],  
  dairy: ['Milk', 'Cheese', 'Yogurt']  
};
```

3. **Get Elements:** Utilize the DOM to get references to the required containers. In this case, you'll need references to the categories and items containers.
4. **Create Event Listener:** Add an event listener to the categories container that will listen for a click event. Use the concept of event delegation to handle clicks on individual categories.
5. **Identify the Target Category:** Inside the event handler, you'll need to determine which category was clicked. Check for a specific class name or attribute that identifies the clicked category.

6. **Retrieve the Data:** Based on the clicked category, retrieve the corresponding items from the given data object. You'll need to use the category name as a key to access the corresponding items.
7. **Render the Items:** Clear the existing items and loop through the newly retrieved items, creating DOM elements for each one. Append these elements to the items container.
8. **Testing:** Test your code by clicking on different categories and ensure that the corresponding items are displayed as expected.

Hints & Guidance

- Focus on understanding how event delegation works in JavaScript. Here's a helpful [article on Event Delegation](#) that might assist you.
- Think about how to utilize the data attributes or specific class names to identify the clicked category within the event handler.
- Use DOM manipulation methods like `getElementById`, `createElement`, `appendChild`, etc., to manage the rendering of the items.

Final Thoughts

Event delegation is a powerful concept in JavaScript that allows for more efficient event handling and can lead to cleaner code. This exercise provides a practical application of this concept. Take your time to understand the provided materials and work through the problem methodically.