

Coding Task Description

Goal: John Doe is a successful social scientist and philanthropist who wants to promote healthy reading habits among younger generations. To support this cause, he opened an online bookstore selling books and novels at extremely reduced rates. His store has quickly gained popularity among varied groups in society. However, John lacks expertise in web development, and his online store is missing several common features found on most e-commerce websites. Currently, the site is built using publicly available code, focusing primarily on product functionality. The bookstore is accessible at: `<redacted URL>` (For Login: Username = Password = `<Your Participation ID>`).

Your Role: You are a browser extension developer and decide to help users of this platform by creating and publishing a browser extension that adds the following functionalities:

Task 1: Save Address for Later: Since the website lacks a "Save Address" option, allow users to save their address for future usage. The extension should autofill the previously recorded address when the user clicks the *autofill* button on the UI. Currently, the extension includes code to add the "Save Address for Later" button on the order page. However, it does not include the code for recording and retrieving data to autofill the address in the corresponding form. The steps to be followed are:

- The API and host permissions are correctly configured for the extension (in the manifest).
- The address data is recorded appropriately. (check/implement content script logic)
- The address data is retrieved appropriately. (check/implement content script logic)

Task 2: Check Product Price on Amazon: You decided to write an extension that enables customers to have a peek at Amazon for the selected product title before buying the product here. The extension currently adds a "Check on Amazon" button right next to the "Order Now" button for each product item. This button, when clicked, should open up the *amazon.com* site with the product title as a search query in an *iframe overlay*. At the moment, the extension faces certain issues when opening up the overlay.:

- The API and host permissions are correctly configured for the extension (in the manifest).
- When clicking on the "Check on Amazon" button, the *iframe/overlay* opens the Amazon page with the search query of the product title (check console logs to identify issues).

Further Information: For both tasks, we provide you with the extension with working code (in a zip file) so you don't have to write the intended functionality from scratch. However, the provided code is incomplete and missing critical components, as outlined above. There is also room for improvements and optimization in the extensions' manifest for real-world deployment.

IMPORTANT NOTES:

- Remember this is **NOT** a job interview.
- We **DO NOT** seek a perfectly executable solution without any runtime issues. Instead, outline your approach and related decisions before implementing.
- Think aloud throughout the coding tasks.
- Provide a browser-agnostic real-world approach that you would use for your own published extension.
- Ask questions if you do not understand the provided information, or the requirements, or if you have difficulty navigating to the next steps. We will be happy to help, wherever possible.
- To debug issues/errors on the client side, you can always check them on the browser console.
- You are allowed to refer to any online resources for the coding tasks. However, please verbalize your thought process during the task.