

INFO-1272 JavaScript 1

Midterm Test – Part B

Submission Directions: FOL Submissions folder, Midterm Test, Part B

Midterm Exercise: Online Shopping Cart

Total Grade: 20

Objective:

You will be building a web page simulating an online shopping cart. Users will be able to:

- **Search for an Item**
- **Update Item Quantity**
- **Clear Cart**
- **Calculate Final Price with Discount**

Instructions:

1) Create a single HTML file:

- a) Name it: [YourFirstName]_[YourLastName]_MidtermTest.html. Example:
"krutarth_patel_MidtermTest.html"

2) Define the following global variables for each item in the cart:

a. Create five variables and store information about each item (items can be your choice, it can be fruits, vegetables, clothes, grocery, etc.) in the shopping cart. Each item should have:

- A **name** (a string)
- A **price** (a number)
- A **quantity** (a number)

b. Be sure to give each item a different variable name (e.g., item2Name, item3Name, etc.).

c. Define Constants: **Define** constants for the **tax rate** and **discount rate** as **0.13** and **0.10** respectively. These will be used in the total price calculations.

3) Create the following functions:

1. searchItem():

- Prompt the user for an item name to search.
- Check if any of the items in the cart match the search term.
- Display a message showing the item(s) found, or "Item not found" if no matches.

2. updateItemQuantity()

- Prompt the user to choose an item and specify the new quantity.
- If the item exists, update its quantity. Ensure the quantity entered is valid (greater than zero).
- If the item does not exist, display an error message.

3. clearCart()

- Clear all items from the cart by setting each item's quantity to zero and name to an empty string.
- Display a message confirming the cart has been cleared.

4. calculateFinalPriceWithDiscount()

- Calculate the total price of the items in the cart, apply the tax, and then apply a discount (10%).
- Display the final price after tax and discount.

4) Create a loop to allow the user to select an action:

- Inside a while() loop, prompt the user to choose an action.
- Use if...else if...else statement to call the corresponding function based on the user's input:
 - S to search for an item
 - U to update item quantity
 - C to clear the cart
 - D to calculate the final price with discount
 - If an invalid input is entered, alert the user of the invalid selection.
- After each action, prompt the user with a confirm() dialog to ask if they want to continue or exit.

5) That's it! Zip your submission and submit to the midterm submission folder on FOL!