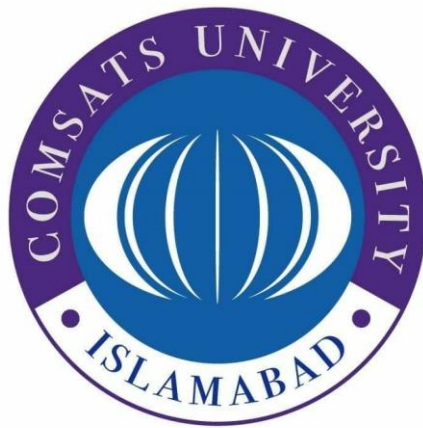**Mobile Application Development**

Sikandar Khan

SP22-BSE-041

Submit to :

Mr. Muhammad Kamran
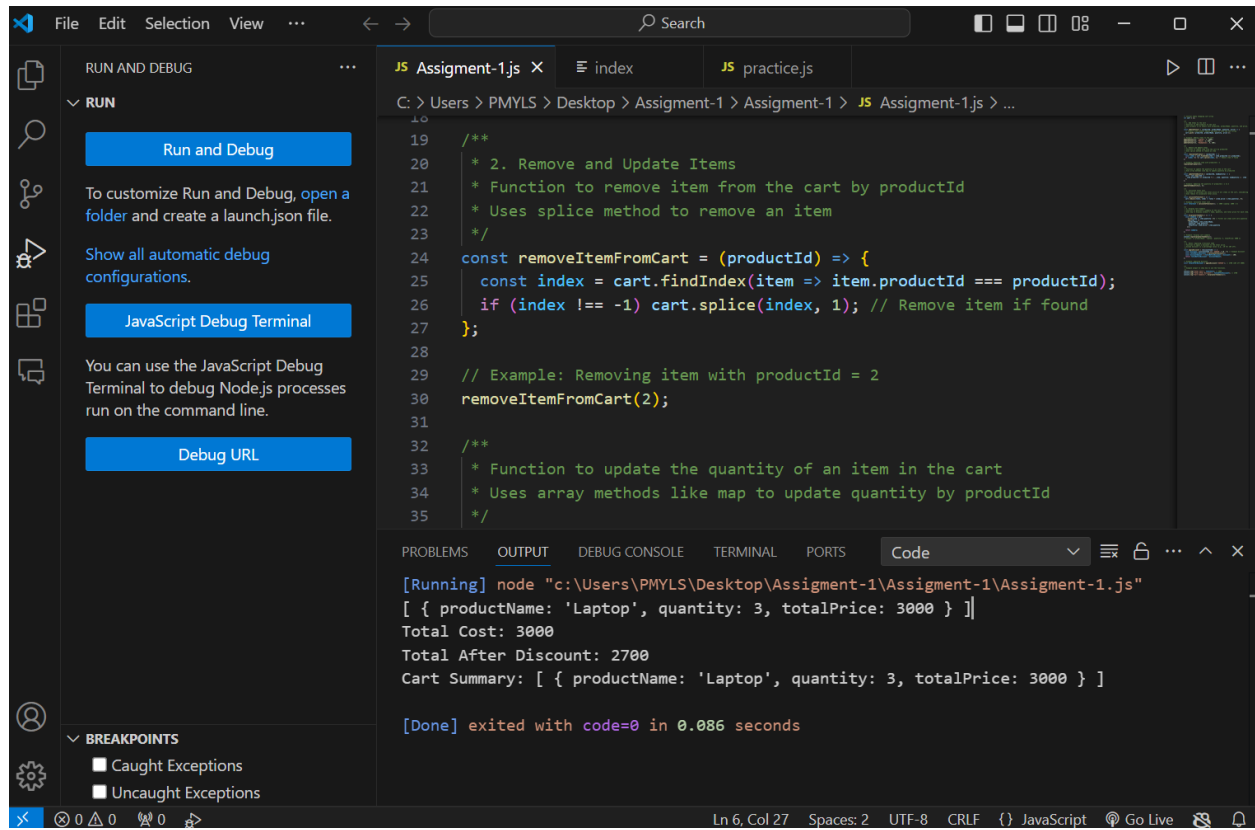
Department Of Computer Science

Comsats University Islamabad

ATTOCK Campus

SESSION 2022-2026

Report:

1. Add Items to the Cart

- **Function Name**: `addItemToCart`
- **What It Does**: It allows you to add new products to the shopping cart. Each product is represented by an object containing:
    - `productId`: A unique ID for the product.
    - `productName`: The name of the product (e.g., "Laptop").
    - `quantity`: The number of units of this product you want to add.
    - `price`: The price per unit of the product.

For example, if you add a laptop with a price of $1000 and a quantity of 1, it will be stored in the cart.

2. Remove and Update Items

- **Remove Items**:
    - **Function Name**: `removeItemFromCart`

- **What It Does**: This function removes an item from the cart using its unique `productId`. If you want to remove a product (like a phone) from the cart, you just provide its ID, and it will be deleted.
- **Update Quantity**:
  - **Function Name**: `updateItemQuantity`
  - **What It Does**: It updates the number of units (quantity) of a specific product in the cart. For example, if you want to change the number of laptops in the cart from 1 to 3, this function will handle that.

3. Calculate Total Cost

- **Function Name**: `calculateTotalCost`
- **What It Does**: It calculates the total cost of all the items in your cart. The price of each product is multiplied by its quantity, and all of these values are summed up to get the total.

For example, if you have 3 laptops at $1000 each, the total cost would be $3000.

4. Display Cart Summary

- **Function Name**: `displayCartSummary`
- **What It Does**: This feature creates a summary of the cart, showing details like:
  - The name of each product.
  - The quantity of each product.
  - The total price for each product (price * quantity).

It also **filters out items with zero quantity**, so you only see products that are actually in the cart.

5. Bonus: Apply Discount

- **Function Name**: `applyDiscount`
- **What It Does**: This function allows you to apply a discount code to the total cost of the cart. If the code is valid (e.g., 'SAVE10'), it reduces the total by a certain percentage (like 10%).

For example, if the total cost is $3000, applying a 10% discount will reduce the total to $2700.

THE END