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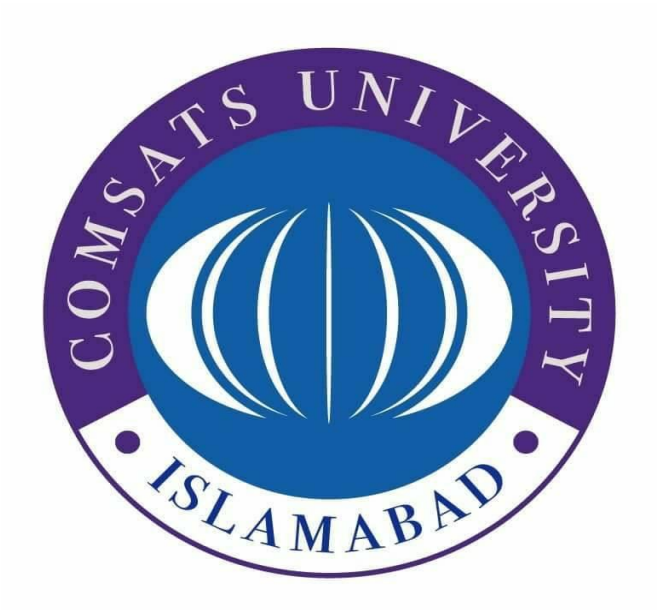

NAME:

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REG NUMBER:

SP22-BSE-004.

COURSE:

Mobile Application Development.

Submitted to:

Sir Muhammad Kamran.

Assignment. 01

Question:

Develop a JavaScript-based mobile shopping cart feature that uses ES6 arrow functions, array methods (map, filter, reduce), and object manipulation to manage items in a shopping cart.

Answer:

Here is the short description for the code:

Add Items to Cart

Function*:*
The function used is as follow:

addItemToCart(productId, productName, quantity, price)

This function creates a new product object using the provided productId, productName, quantity, and price. It then uses the push method to add this object to the cart array, which holds all the items in the shopping cart.

Remove and Update Items

Function*:*
The function used is as follow:

removeItemFromCart(productId)

This function finds the index of the item with the given productId in the cart array using findIndex. If the item exists (index is not -1), it removes the item from the cart using the splice method.

***Update Function**:*

The function used is as follow:

updateItemQuantity(productId, newQuantity)

This function updates the quantity of an existing item in the cart. It uses the map method to iterate over the cart. For the item with the matching productId, it returns a new object with the updated quantity. All other items are returned unchanged.

Calculate Total Cost

The function used is as follow:

calculateTotalCost()

This function calculates the total cost of all items in the cart by using the reduce method. It multiplies each item's price by its quantity and adds this value to an accumulating total.

Display Cart Summary

The function used is as follow:

displayCartSummary()

*This function generates a summary of each item in the cart. It uses the map method to return an array of objects where each object contains the productName, quantity, and the total price for each product (price * quantity).*

Bonus: Apply Discount

The function used is as follow:

applyDiscount(discountPercentage)

This function applies a percentage discount to the total cost of the cart. It first calculates the total cost using calculateTotalCost(), then reduces this amount by the discount percentage.

Screenshots: