

SHOPPING CART APPLICATION

**Group Name**

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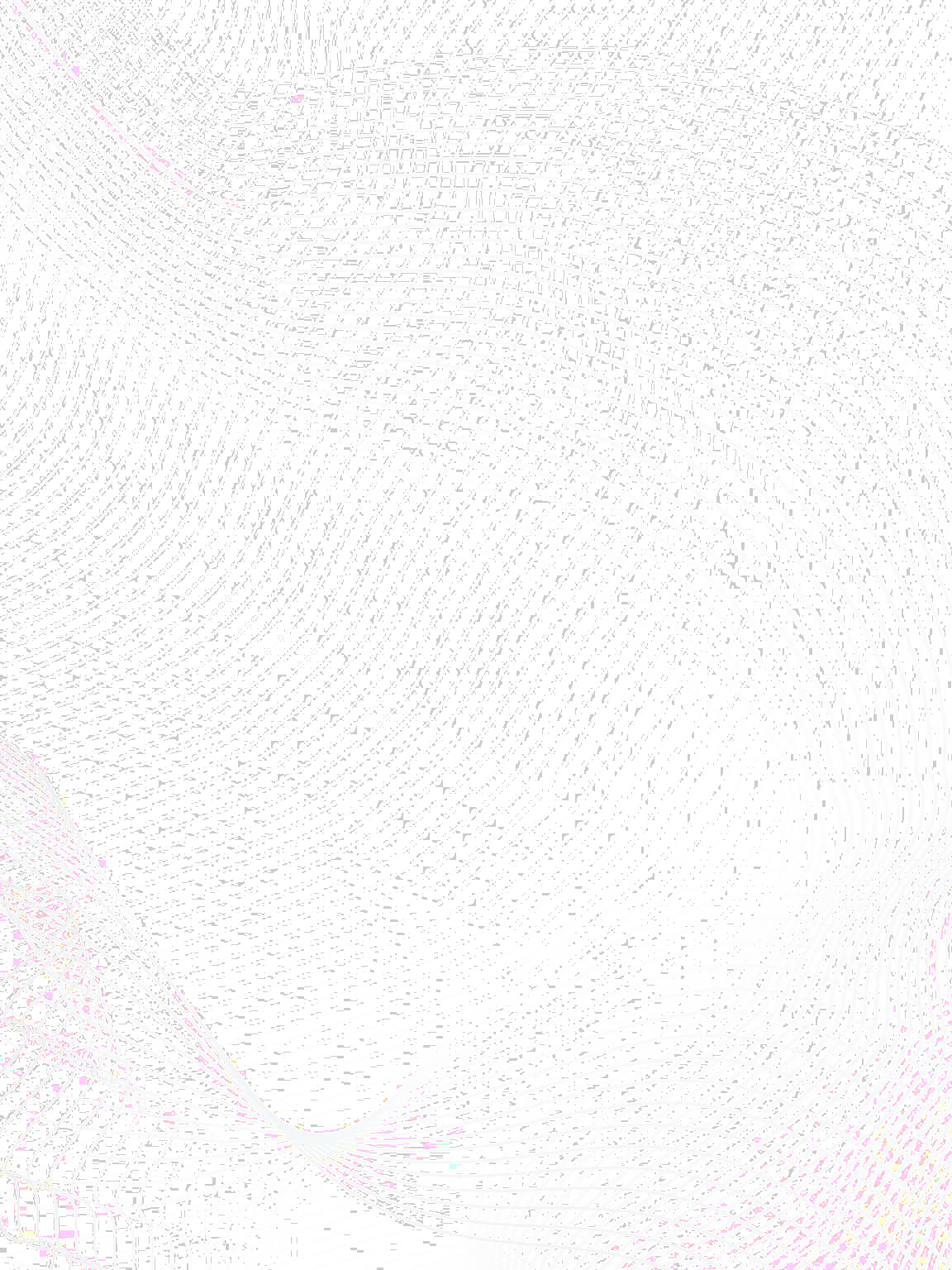
# Date

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**Course title** Visual Programming **Course Instructor**

Ma’am Atka Ali

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| **FUNCTIONALITIES DIVISION** |
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| **Javeria Noor:**   1. **Cart Functionalities**    * Add to Cart    * Remove from Cart 2. **Product Management**    * Quantity    * Price   **ZOHAIB:**   1. **User Interaction** 2. **Cart Operations**    * View Categories    * View Cart    * Checkout 3. **Product Recommendation**   **JAVERIA NOOR:**   1. **Cart Expiration**    * Cart Expires after 5 minutes 2. **Discounts**  * 10% if products >2 * 25 % if products >4  1. **All validations** |

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| **1.PROCESS OVERVIEW** |
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| This project is a console-based Shopping Cart application built in C#. It allows users to browse products by category, add items to a cart, view the cart, apply discounts, and checkout. The project has built-in logic to apply a 10% or 25% discount based on the number of items added to the cart from a single category. The application also includes cart expiration  functionality using a timer. |

# 2.Responsibilities and Features

## Cart Functionality and Product Management

* + 1. **Add to Cart:** Users can add products by specifying the name, price, and quantity, updating quantities if items already exist in the cart.
    2. **Remove from Cart:** This feature allows users to remove items from the cart.
    3. **Product Management:** Manages quantity and pricing details, enabling accurate total cost calculations.

## User Interaction, Cart Operations, and Product Recommendation

* + 1. **User Interaction:** The console menu allows users to add/remove items, view the cart, and proceed to checkout.
    2. **Cart Operations:** This includes viewing product categories, accessing the cart summary, and completing the checkout process.
    3. **Product Recommendations:** Provides suggestions based on items in the cart, enhancing the overall user experience.

## Cart Expiration, Discounts, and Application Logic

* + 1. **Cart Expiration:** (Future Scope) This feature will manage cart lifespans to improve inventory availability.
    2. **Discounts:** Users can apply discounts to reduce the total cart cost.
    3. **Application Logic:** Coordinates the flow of actions, ensuring error handling and user confirmations.

# Trust and Security

* Future enhancements will focus on data security, input validation, and clear cost breakdowns at checkout. Features such as encrypted data storage and secure payment options would help build user trust.

# Future Enhancements

Suggested improvements include:

* 1. **Data Persistence:** Implementing a system to retain cart data across user sessions.
  2. **GUI Development:** Creating a graphical user interface for improved usability.
  3. **Advanced Recommendations:** Incorporating AI-driven product suggestions based on user shopping behavior.

# Conclusion

* The Shopping Cart application provides essential cart management features, including item management, discount application, and checkout functionality. This project establishes a strong foundation for a scalable e-commerce solution, with room for further enhancement in security and user experience