**Micro-Project Annexure-1**

**Course Title**: Data Structures Using C

**Course Code:** 313334

**Under the Guidance of:** Mrs. Smita Dashpute

**Topic:** Shop System



**Group Members:**

|  |  |  |
| --- | --- | --- |
| Roll Number | Enrollment Number | Name |
| 31 | 23150930411 | Divya Gosavi |
| 32 | 23150930413 | Swayam Datkhile |
| 33 | 23150930414 | Jay Jogane |
| 34 | 23150930415 | Ninad Mali |
| 35 | 23150930416 | Jagruti Chavan |

## **Aims/Benefits of the Micro-Project**

To Understand Shop System , the administrator and can manage the shop and the customers can buy products from the shop.

## **Course Outcomes Addressed**

* CO1 - Perform basic operations on Arrays.
* CO2 - Apply different searching and sorting methods.
* CO3 - Implement basic operations on Linked List.
* CO4 - Perform operations on Stack using Array and Linked List.
* CO5 - Perform operations on Queue using Array and Linked List.
* CO6 - Create and Traverse Tree to solve problems.

## **Proposed Methodology**

1. Objective - Create a Shop system with product and cart management, managing the system using arrays, linked list , stack , queues.
2. Scope –

* Cart operations: Create, Delete, View
* Product Operations: Create , Delete,Update,View

1. Approach –

* Arrays for basic data storage
* Linked List for cart and products.
* Stack to store the products in cart
* Queue to display products and cart

1. Evaluation – Test Functionality, Performance, usability

## **Action Plan**

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| --- | --- | --- | --- | --- |
| S. No. | Details of the Activity | Planned Start Date | Planned Finish Date | Name of the  responsible Team Members |
| 1 | Topic Selection | 5-Aug-24 | 7-Aug-24 | Divya Gosavi, Jay Jogane |
| 2 | Annexure 1submission | 17-Aug-24 | 26-Aug-24 | Divya Gosavi, Swayam Datkhile , Jay Jogane , Ninad Mali, Jagruti Chavan |
| 3 | Information Search | 12-Aug-24 | 20-Aug-24 | Jay Jogane, Divya Gosavi , Swayam Datkhile |
| 4 | Writing the program | 21-Aug-24 | 30-Aug-24 | Jay Jogane |
| 5 | Testing the Program | 1-Sep-24 | 15-Sep-24 | Divya Gosavi |
| 6 | Implement the Program | 20-Sep-24 | 10-Oct-24 | Jay Jogane , Divya Gosavi |
| 7 | Annexure 2 submission |  |  |  |

## **Resources Required**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No. | Name of Resource | Specifications | Quantity | Remarks |
| 1 | Turbo C++ | Version 4 | 1 |  |
| 2 | Computer System | Windows 11 | 1 |  |
| 3 | Books | Data Structures Using C | 1 |  |
| 4 | Reference Websites | geekforgeeks | 1 |  |

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