



Academic Year 2024-25 | Semester-4

2304CS411 - Data Structure | Project work

Sr.	Project details
1	Real-Life Application: Inventory Management System
	Problem Statement:
	Create an inventory management system for a small store using arrays in C. The system should allow
	the store owner to perform the following operations on the inventory:
	I. Insertion: Add a new item to the inventory.
	II. Deletion: Remove an item from the inventory.
	III. Searching: Search for an item by its ID.
	IV. Updating: Update the quantity or price of an item.
	V. Traversal: Display all items in the inventory.
2	Real-Life Stack Application: Undo Functionality in a Text Editor
	Problem Statement:
	A simple text editor maintains a history of actions so the user can undo their last operation. Implement
	a stack-based undo feature in C where:
	I. A user can type a word and add it to the document.
	II. The user can undo the last action (remove the last word typed).
	III. The program maintains a history of words using a stack.
	Explanation:
	1. Stack Implementation:
	Uses a character array to store words.
	 Uses push() to add words.
	Uses pop() to remove the last added word (undo feature).
	Uses display() to show the document.
	2. Operations:
	 Adding a word: User inputs a word, and it is pushed onto the stack.
	Undoing (removing last word): The last word is popped from the stack.
	Displaying document: Shows all words in order.
3	Simple Online Store Order Management System
	Problem Statement:
	Create a simple Online Store Order Management System in C. This program allows users to use the
	following functionalities
	I. Add Order – Customers place orders.
	II. Process Order – Orders are served in FIFO order.
	III. Display Orders – Shows pending orders.
	IV. Search Order – Finds an order by ID.
	V. Exit – Ends the system.