01. Consider a multiway tree where each node can have multiple children. Design a C program to perform the insertion operation in a multiway tree. The program should get the user inputs for the insertion process.

    I.   After inserting each key into the multiway tree, calculate and display the sum of all the keys in the tree.

    II. After all insertions, calculate and display the average key value in the multiway tree.

    III. Implement a function to perform an in-order traversal of the multiway tree and display the keys in sorted order

    IV. Implement functions to find and display the maximum and minimum keys in the multiway tree.

02. Now consider an inventory management system for a warehouse that stores various products. Each product has a unique identification number (ID), and the inventory system uses a multiway tree to organize and manage the products efficiently. Each node in the represents a product with its unique ID, and each product node can have multiple child nodes representing different variants or sizes of the same product.

    Modify the code that you have already implemented in **question 01** and implement the following features:

    I.   Suppose each product in the inventory has a known unit price. Modify the program to calculate and display the total value of the entire inventory after inserting all the products into the multiway tree

    II. Utilize the in-order traversal functionality to perform an analysis of the inventory, such as displaying the products in sorted order based on their identification numbers

    III. Implement a function to search for a specific Product in the inventory. After inserting Product IDs, prompt the user to enter an ID for searching, and then display whether the product is present or absent in the inventory