Overview of the program:
This program is a Supermart Management System implemented in C.
It provides functionalities for managing product information in a supermart.

Objective :
To create a basic inventory management system for a supermart. This system allows users to:

1. **Add product details:** Record information about products, such as name, manufacturer, quantity, and price.
2. **View all products:** Display the inventory, showing all the stored product details.
3. **Search by manufacturer:** List products based on a specific company's name.
4. **Track inventory size:** Display the total count of products in the supermart.

Conclusion of the Code:
The provided program successfully demonstrates a basic inventory management system for a supermart. It enables the user to:

1. **Add Products:** Efficiently input product details such as name, manufacturer, available quantity, and price.
2. **View Inventory:** Display all products currently stored in the inventory.
3. **Search by Manufacturer:** Filter and list products based on the company name.
4. **Track Inventory Size:** Show the total number of products added to the system.

Algorithm:
1. **Initialize Variables:**
   - Define an array sup of type struct supermart to store product details.
   - Initialize count to 0 to track the number of products.
   - Initialize input to hold user choices from the menu.
2. **Display Menu in a Loop:**
   - Use a while loop that runs until the user chooses to exit (input != 5).
   - Display the menu options:
     i. Add product information.
     ii. Display all product information.
     iii. List all products of a given company.
     iv. Display the count of products in the supermart.
     v. Exit the program.
3. **Process User Input:**
   - Use a switch statement to process the user's choice (input).
4. **Option 1: Add Product Information:**
   - Prompt the user for:
     - Product name.
     - Company name.
     - Available quantity.
     - Price.
   - Store these details in the sup[count] element.
   - Increment count.
5. **Option 2: Display All Product Information:**
   - If count is 0, display a message that no products are available.
   - Otherwise, iterate through the sup array from 0 to count - 1.
   - For each product, display:
     - Product name.
     - Company name.
     - Available quantity.
     - Price.
6. **Option 3: List Products by Company:**
   - Prompt the user for a company name.
   - Iterate through the sup array from 0 to count - 1.
   - For each product, check if the company name matches (using strcmp).
   - If matched, display the product details.
   - If no matches are found, display an appropriate message.
7. **Option 4: Display Total Count of Products:**
   - Display the value of count, representing the total number of products in the inventory.
8. **Option 5: Exit Program:**
   - Terminate the program.
9. **Invalid Input Handling:**
   - If the user enters a choice outside 1-5, display an error message and loop back to the menu.

Display, Input and Output of code

```
****######WELCOME TO SUPERMART #####****


1. Add product information
2. Display product information
3. List all products of a given company
4. List the count of products in the supermart
5. Exit

Enter one of the above: |
```

```
Enter one of the above: 1
Enter product name = Toothpaste
Enter company name = Sensodyne
Enter available quantity = 100
Enter price = 70
```

```
Enter one of the above: 2
You have entered the following information
Product name = Toothpaste
Company name = Sensodyne
Available quantity = 100
Price = 70.00
```

```
Enter one of the above: 3
Enter company name: sensodyne
Products from company sensodyne:
Product: Toothpaste, Quantity: 100, Price: 70.00
```

```
Enter one of the above: 4

No. of products available in the supermart: 1
```

NAME: BHAKT K TALATI
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SEMESTER: 1

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SEMESTER: 1