**Retail Store Requirements**

Consider a retail store where five different items are sold. The ID, price and discount percentage of each item is provided in the table below, inventory[5][3]:

|  |  |  |
| --- | --- | --- |
| **Item ID** | **Price** | **Discount** |
| 5801 | 12.59 | 2% |
| 5802 | 10.95 | 10% |
| 5803 | 3.98 | 0% |
| 5804 | 4.02 | 5% |
| 5805 | 20.68 | 50% |

1) **m*ain***function

* Declare the array order[5][2] of type int to hold the user inputs: reference to item in inventory, and number of items purchased. Declare int **max** = 5.
* Prompt the user to enter the item number and number of items purchased. Store the matching inventory row and number in the order array
* Call function int *getItemID and* void *calculateTotalPrice* from main
* Add a loop in main that allows the user to repeat orders until he/she chooses to exit.

2) ***getItemID***function

* Inputs to this function are **max** and order[] []
* Prompt the user to enter the item IDs in the range of 5801-5805 and store it in an array type variable. Perform validation to make sure the entered IDs are in the range.
* Update the **order** array with the item reference in the array **inventory** and the number of items ordered.
* The user can enter up to **max** products. Entering 0 stops the order process
* Return the number of items ordered

3) ***calculateTotalPrice***function

* Inputs to this function are number\_of\_items, order[] [].
* Calculate the following and print the values.
  + Number of items ordered
  + Item Number
  + Price
  + Discount Price
  + Total cost for the item
  + Keep a running total for the cost and Discounted cost, but do not print
* Print the following numbers:
  + Total price of all items
  + Total price of all items after discount
  + Savings after discount
  + Sales Tax 6.75%
  + Total

**Note:** You may change the names of the function and its parameters. An example illustrating interaction with the program is given below.

**Retail Store Example**

Enter the item ID in the 5801-5805 range, 0 to stop: 5801

Enter the number of items purchased, 0 to stop: 1

Enter the item ID in the 5801-5805 range, 0 to stop: 5802

Enter the number of items purchased, 0 to stop: 2

Enter the item ID in the 5801-5805 range, 0 to stop: 5803

Enter the number of items purchased, 0 to stop: 3

Enter the item ID in the 5801-5805 range, 0 to stop: 5804

Enter the number of items purchased, 0 to stop: 4

Enter the item ID in the 5801-5805 range, 0 to stop: 5806

Error, invalid ID entered. Try again.

5805

Enter the number of items purchased, 0 to stop: 2

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Receipt\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Count Item Price Discount Total

1 5801 $ 12.59 $ 12.34 $ 12.34

2 5802 $ 10.95 $ 9.85 $ 19.71

3 5803 $ 3.98 $ 3.98 $ 11.94

4 5804 $ 4.02 $ 3.82 $ 15.28

2 5805 $ 20.68 $ 10.34 $ 20.68

Total price before discount: $ 103.87

Total price after discount: $ 79.94

Your savings: $ 23.93

Sales tax at 6.75 percent: $ 5.40

Total: $ 85.34

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Would you like to process another sale <Y/N>: Enter the item ID in the 5801-5805 range, 0 to stop: 5801

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