Wilson Trading Center is retail center which facilitate buy goods up to 10 costumers from the shop. Every customer gets 5 possibilities to buy goods. Purchase of goods must be purchased according to the "Table 1". Customers also get discounts to billing amount.

Table 1

Item Code	Item Name	Item Quantity	Item Price(Rs.)
01	Rice	90(Kg)	105(1Kg)
02	Salmon Tin	50	275
03	sugar	60(Kg)	120(1Kg)
04	Soap	70	60
05	Cheese	80	340

Table 2

Price(Rs.)	Discount
Price >= 8000	15%
Price >= 5000	10%
Price < 5000	2%

- 1) After Purchasing of goods by the customer, an Invoice must be produced according to the items he/she purchased, and it should be displayed.
- 2) Table 1 should be updated after purchasing of goods from customer to customer and it should be displayed.
- 3) After 10 customers made their purchases from the retail center program will end. At the end of the program it should display the remaining inventory and income from the sales.

By considering the above information write a C program. When executing the program if user inputs wrong data, it should display a error message.

C Program

```
#include <stdio.h>
int main (void)
{
  //assign the variable
  int count1 = 1;
  float net_A_total = 0;
  int rice_quantity = 90 ,rice_price =105;
  int salmon_quantity = 50 ,salmon_price =275;
  int sugar_quantity = 60 ,sugar_price =120;
  int soap quantity = 70 ,soap price =60;
  int cheese_quantity = 80 ,cheese_price =340;
  while(count1<=10)// 1st loop start
  {
   //assign the variable
   int count2 = 1;
   int Item_code;
```

```
float Item quantity = 0, total = 0, total 1 = 0, total 2 = 0, total 3 = 0, total 4 = 0, total 5 = 0, discount = 0
, amount = 0 ;
   char type, ch = 'Y';
   int rice qty = 0, salmon qty = 0, sugar qty = 0, soap qty = 0, cheese qty = 0;
     //print the Table of items
   printf(" -----\n");
   printf("
                WILSON TRAD CEMTER\n" );
   printf(" -----\n\n");
   printf("-----\n");
   printf(" Item_Code | Item_Name | Item_Quantity | Item_Price(Rs.) \n" );
   printf("-----\n");
           01 | Rice | %dKg | %d(1Kg)\n", rice_quantity, rice_price);
   printf("
   printf(" 02 | Salmon tin | %d | %d\n" , salmon_quantity , salmon_price );
   printf(" 03 | Sugar | %dKg | %d(1Kg)\n", sugar_quantity, sugar_price);
                           %d | %d\n" , soap_quantity , soap_price );
   printf(" 04 | Soap |
   printf(" 05 | Cheese | %d | %d\n\n" , cheese_quantity , cheese_price );
   while(count2<=5)//2nd loop start
   {
   printf("Enter the Item Code:");//prompt for input
   scanf("%d", &Item code);//read item code from user
   printf("Enter the Item Quantity:");//prompt for input
   scanf("%f", &Item quantity);//read item quantity from user
   printf("\n");
   if( Item code==01 )//check the item code
     if( Item quantity < rice quantity )//check the item quantity
       total1 = Item_quantity * rice_price ;//calculate item 1 total
       total = total + total1 ;//calculate full total
       rice quantity = rice quantity - Item quantity ;//calculate left items
       rice qty = Item quantity;//provide new values
       count2++;
     }
     else
     {
       printf("-----\n"):
       printf("You can't get this item please check the Item Quantity\n");//print the error message
       printf("-----\n\n");
```

```
}
}
else
{
  if( Item_code==02 )//check the item code
    if( Item_quantity < salmon_quantity )//check the item quantity
      total2 = Item quantity * salmon price ;//calculate item 2 total
      total = total + total2 ;//calculate full total
      salmon_quantity = salmon_quantity - Item_quantity ;//calculate left items
      salmon_qty = Item_quantity ;//provide new values
      count2++;
    }
    else
      printf("You can't get this item please check the Item Quantity\n");//print the error message
      printf("-----\n\n"):
    }
  }
  else
    if( Item code==03 )//check the item code
      if( Item_quantity < sugar_quantity )//check the item quantity
        total3 = Item quantity * sugar price ;//calculate item 3 total
        total = total + total3 ;//calculate full total
        sugar_quantity = sugar_quantity - Item_quantity ;//calculate left items
        sugar_qty = Item_quantity ;//provide new values
        count2++;
      }
      else
        printf("You can't get this item please check the Item Quantity\n");//print the error message
        printf("-----\n\n");
      }
    }
    else
```

```
if( Item code==04 )//check the item code
           if( Item_quantity < soap_quantity )//check the item quantity
             total4 = Item quantity * soap price ;//calculate item 4 total
             total = total + total4 ;//calculate full total
             soap_quantity = soap_quantity - Item_quantity ;//calculate left items
             soap qty = Item quantity;//provide new values
             count2++;
           }
           else
           {
             printf("-----\n");
             printf("You can't get this item please check the Item Quantity\n");//print the error message
             printf("-----\n\n");
           }
         }
         else
           if( Item code==05 )//check the item code
           {
             if( Item_quantity < cheese_quantity )//check the item quantity
               total5 = Item quantity * cheese price ;//calculate item 5 total
               total = total + total5 ;//calculate full total
               cheese_quantity = cheese_quantity - Item_quantity ;//calculate left items
               cheese qty = Item quantity ;//provide new values
               count2++;
             else
               printf("You can't get this item please check the Item Quantity\n");//print the error
message
             }
           }
           else
           {
                                  -----\n");
               printf("-----
                         ITEM CODE IS INCORRECT!!!\n"); //print the error message
```

{

```
}
        }
     }
   }
 }
}//2<sup>nd</sup> loop stop
if( total \geq 8000 )
 discount = total * 15/100 ;//calculate discount
 printf("Your NET AMOUNT(Rs.):%f\n", (total - discount));//print the net amount from customer's
 printf("Enter the AMOUNT YOU PAY(Rs.):");//prompt for input
 scanf("%f", &amount);//read amount from user
}
else
  if( total >= 5000 )
  {
    discount = total * 10/100 ;//calculate discount
    printf("Your NET AMOUNT(Rs.):%f\n", (total - discount));//print the net amount from customer's
    printf("Enter the AMOUNT YOU PAY(Rs.):");//prompt for input
    scanf("%f", &amount);//read amount from user
  }
  else
  {
    discount = total * 2/100 ;//calculate discount
    printf("Your NET AMOUNT(Rs.):%f\n", (total - discount));//print the net amount from customer's
    printf("Enter the AMOUNT YOU PAY(Rs.):");//prompt for input
    scanf("%f", &amount);//read amount from user
    printf("\n\n");
  }
}
      //print the Customer's Bill
printf("-----
                 INVOICE \n");
printf("
printf("-----
                                ----\n");
                                    AMOUNT(Rs.) \n");
printf(" ITEM
                  QTY
                          PRICE
printf("-----\n");
                                     %f\n"
printf(" Rice
                 %dKg
                          %d(1Kg)
                                              , rice_qty , rice_price , total1 );
printf(" Salmon tin %d
                           %d
                                    %f\n"
                                              , salmon_qty , salmon_price , total2 );
                                     %f\n"
printf(" Sugar
                  %dKg
                           %d(1Kg)
                                               , sugar_qty , sugar_price , total3 );
```

```
printf(" Soap
               %d
                     %d
                              %f\n" , soap qty , soap price , total4);
printf(" Cheese
                      %d
                              %f\n" , cheese_qty , cheese_price , total5 );
printf("-----
                      -----\n");
                           %f\n" , total );
-%f\n" , discount );
printf(" FULL AMOUNT
printf(" DISCOUNT
printf("
                       ----\n");
                               %f\n" , (total - discount) );
printf(" NET AMOUNT
printf("-----\n");
printf(" CASH %f\n", amount);
printf("CASH BALANCE %f\n", amount - (total - discount));
printf(" THANK YOU \n" );
printf("-----\n\n");
net A total = net A total + (total - discount); //calculate net amount total
count1++;
}1st loop stop
    //print the item left in shop
 printf("-----\n");
 printf(" WE HAVE STOPPED DELIVERING GOODS TODAY\n" );
 printf("-----\n");
 printf(" --The number of items left--\n");
 printf("----\n");
 printf(" Item Code | Item Name | Item Quantity |\n" );
 printf("----\n");
 printf(" 01 | Rice | %dKg |\n", rice_quantity );
 printf(" 02 | Salmon tin | %d |\n" , salmon quantity );
 printf(" 03 | Sugar | %dKg |\n", sugar_quantity );
 printf(" 04 | Soap | %d |\n", soap_quantity );
 printf(" 05 | Cheese | %d |\n\n", cheese quantity );
 printf("THE AMOUNT RECEIVED TODAY:%f\n\n", net_A_total); //print the received amount
return 0;
```

}

Test case1: When someone buys goods

	-
WILSON TRAD CEMTER	

Item_Cod	e Item_Name	I	Item_Quantity		tem_Price(Rs.)
01	Rice		90Kg		105(1Kg)
02	Salmon tin		50		275
03	Sugar		60Kg		120(1Kg)
04	Soap		70		60
05	l Cheese	1	40	ı	340

Enter the Item Code:01 Enter the Item Quantity:10

Enter the Item Code:02 Enter the Item Quantity:10

Enter the Item Code:03 Enter the Item Quantity:20

Enter the Item Code:04 Enter the Item Quantity:25

Enter the Item Code:05 Enter the Item Quantity:10

Your NET AMOUNT (Rs.):9435.000000 Enter the AMOUNT YOU PAY(Rs.):10000

· · · ·

	IN	VOICE	
ITEM	QTY	PRICE	AMOUNT(Rs.)
Rice Salmon tin Sugar Soap Cheese	10Kg 10 20Kg 25 10	105(1Kg) 275 120(1Kg) 60 340	1050.000000 2750.000000 2400.000000 1500.000000 3400.000000
FULL AMOU DISCOUNT			11100.000000 -1665.000000 9435.000000
CASH CASH BALAN	ICE		10000.000000 565.000000
	THA	 NK YOU	

2 Salmon tin 40 275 3 Sugar 40Kg 120(1Kg) 4 Soap 45 60 5 Cheese 30 340		WILSON TRADO			
1 Rice 80Kg 105(1Kg) 2 Salmon tin 40 275 3 Sugar 40Kg 120(1Kg) 4 Soap 45 60 5 Cheese 30 340	 _Code	 e Item_Name	 Item_Quantit	y	Item_Price(Rs.)
D2 Salmon tin 40 275 D3 Sugar 40Kg 120(1Kg) D4 Soap 45 60 D5 Cheese 30 340)1			ī	105(1Kg)
04 Soap 45 60)2	Salmon tin	40	ĺ	
05 Cheese 30 340	03	Sugar	40Kg		120(1Kg)
05 Cheese 30 340)4			ĺ	
r the Item Code:)5			Ì	340
	the I	tem Code:			

WILSON TRAD CEMTER

Item_Cod	e Item_Name	Item_Quantity	y Item_Price(Rs.)
01	 Rice	 90Kg	105(1Kg)
02	Salmon tin	50	275
03	Sugar	60Kg	120(1Kg)
04	Soap	70	60
05	Cheese	1 40	340

Enter the Item Code:12 Enter the Item Quantity:10

ITEM CODE IS INCORRECT!!!

Enter the Item Code:01 Enter the Item Quantity:100

Vou can't got this item places shock the Item Quantity

You can't get this item please check the Item Quantity

Enter the Item Code:

Test case3: Once everyone has purchased the goods

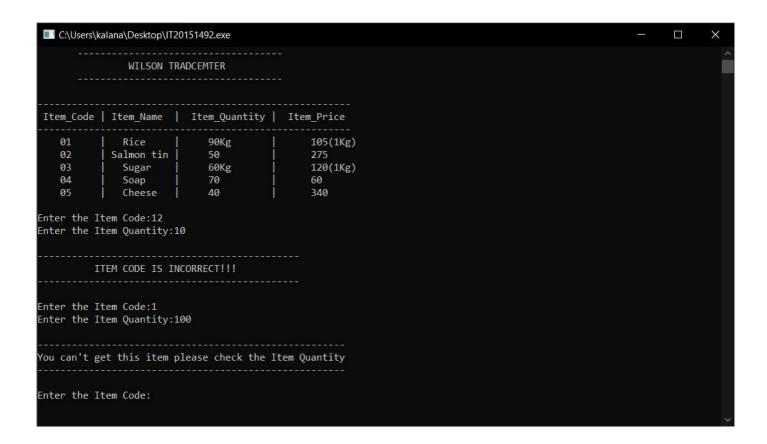
WE HAV	'E STOPPED DE	LIVEF	RING GOO	DS TODA	Υ.
T	he number of i	tems	left		
Item_Code	Item_Name	Ite	em_Quant	ity	
01	Rice	1	XKg		
02	Salmon tin		Χ		
03	Sugar		XKg		
04	Soap	1	Χ	1	
05	Cheese	1	Χ	1	

THE AMOUNT RECEIVED TODAY(Rs.):xxxxxxxxxxx

Test case1

	WILSON TRA		
		Item_Quantity	Item_Price
01 02 03 04 05	Rice Salmon tin Sugar Soap Cheese	90Kg 50 60Kg 70 40	105(1Kg) 275 120(1Kg) 60 340
Enter the Ite Enter the Ite			
nter the Ite nter the Ite	m Code:02 m Quantity:10		
nter the Ite	m Code:03 m Quantity:20		
nter the Ite	m Code:04 m Quantity:25		
	m Code:05		
nter the Ite	m Code:05 m Quantity:10		
nter the Ite Your NET AMOU Enter the AMO	m Code:05 m Quantity:10 NT :9435.0000 UNT YOU PAY:1	00 0000	
nter the Ite Our NET AMOU Inter the AMO	m Code:05 m Quantity:10 NT :9435.0000 UNT YOU PAY:1 INVOICE	00 0000	
Your NET AMOU Enter the AMO ITEM Rice Salmon tin Sugar Soap	m Code:05 m Quantity:10 nT :9435.0000 UNT YOU PAY:1 INVOICE QTY 10Kg 10 20Kg 25	90 90909 PRICE AI 105(1Kg) 1: 275 2: 120(1Kg) 2: 60	 40UNT
ITEM Rice Salmon tin Sugar	m Code:05 m Quantity:10 NT :9435.0000 UNT YOU PAY:1 INVOICE QTY 10 20Kg 25 10	999 99099 PRICE AI 105(1Kg) 1: 120(1Kg) 2: 69 3440 3:	10UNT 950.000000 750.000000 100.000000 1500.000000
inter the Ite Your NET AMOU ITEM Rice Salmon tin Sugar Soap Cheese FULL AMOUNT DISCOUNT NET AMOUNT	m Code:05 m Quantity:10 NT :9435.0000 UNIT YOU PAY:1 INVOICE QTY 10Kg 10 20Kg 25 10	90 90 PRICE AI 105(1Kg) 1: 275 2 120(1Kg) 3: 60 3: 111 -16: 	00UNT 050.000000 050.000000 100.000000 1500.000000 100.000000 100.000000
FINE AMOUNT NET AMOUNT FILE FILE	m Code:05 m Quantity:10 NT :9435.0000 UNIT YOU PAY:1 INVOICE QTY 10Kg 10 20Kg 25 10	90 90 90 90 90 90 90 90 90 90 90 90 90 9	00UNT 050.000000 050.000000 100.000000 1500.000000 100.000000 100.000000

Test case2



Test case3

