Experiment :1

SHOPPING CART

ALGORITHM

Step 1: Start

Step 2: Declare and define functions “additem”, “deleteitem”, “updatebill” and “displaycart”

Step 3: Declare structure cart_items with variables “code”, “quantity” and “cost”

Step 4: Declare variables stock[i][j], choice, item_number, total.

Step 5: Print the stock items.

Step 6: Read choice from the user.

Case ‘1’ – call “additem” function which adds item in your cart.

Case ‘2’ – call “deleteitem” function which deletes items in your cart

Case ‘3’ – call “displaycart” function which displays your carts

Case ‘default’ – GOTO 8

Step 7: Call “updatebill” function to display items in your cart and the total bill.

Step 8: Stop

Code:-

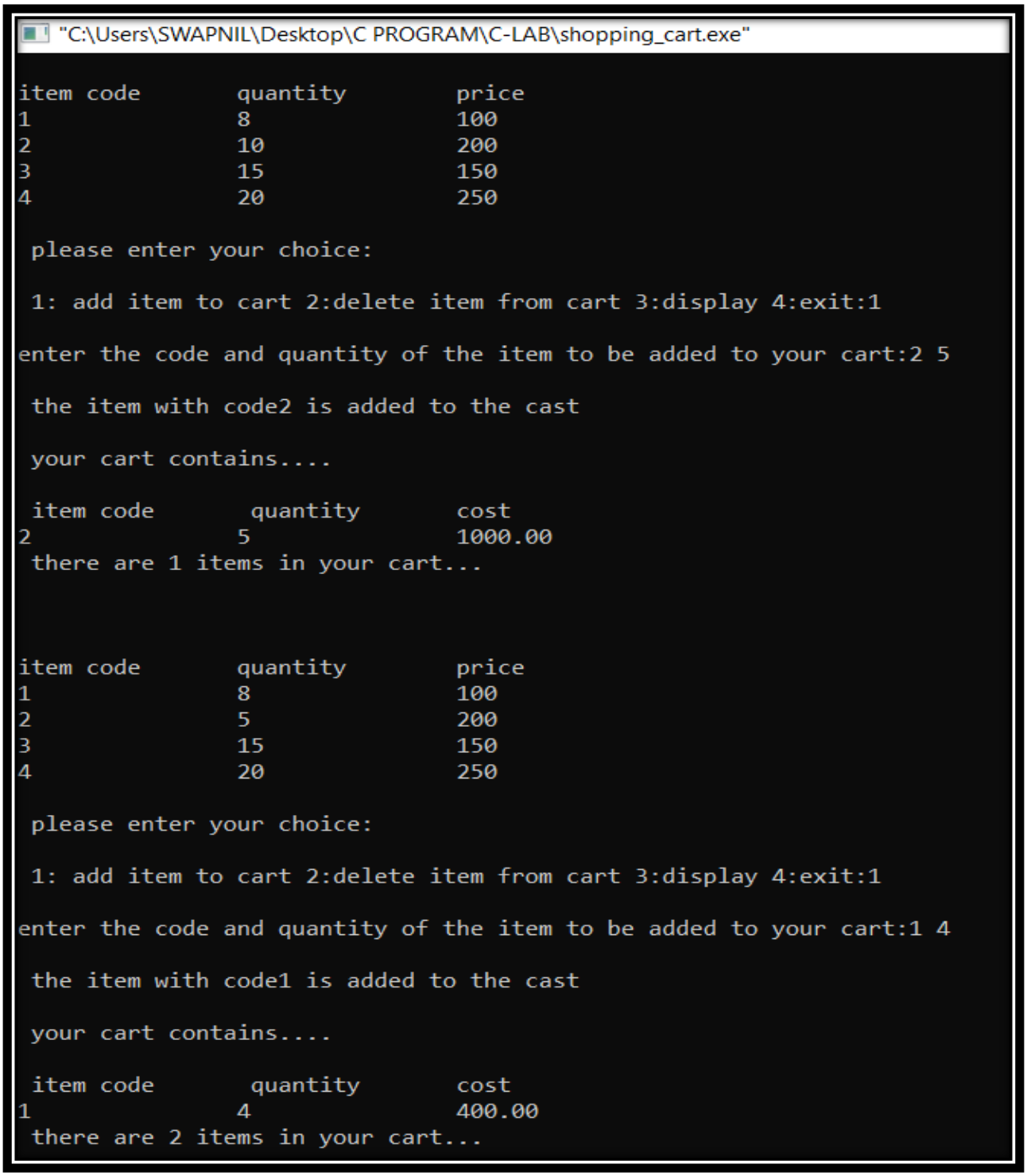
```
#include<stdio.h>
#include<stdlib.h>
void additem();
void deleteitem();
void updatebill();
void displaycart();

int stock[5][3]={{0,0,0},{1,8,100},{2,10,200},{3,15,150},{4,20,250}};          //initialising
the stock
typedef struct{ int code;                          //initialising structure
              int quantity;
              float cost;
            }cartitems;
cartitems c[10];                        //array of structure
int inum=0;
float total=0;

int main()
{
   int i,j,n,choice;
   do{
      printf("\n\nitem code\tquantity\tprice\n");          //item code which is available in stock
      for(i=1;i<5;i++)                                    //for loop to print the stock
      {
         for(j=0;j<3;j++)
            printf("%d\t\t",stock[i][j]);
         printf("\n");
      }
   printf("\n please enter your choice:");
```

```
    printf("\n\n 1: add item to cart 2:delete item from cart 3:display 4:exit:");
    scanf("%d",&choice);

    switch(choice)                                  //custumer choice case statement
    {
       case 1:additem();
          break;
       case 2:deleteitem();
          break;
       case 3:displaycart();
          break;
       default: exit(0);
    };
    }while(1);
    return 0;
}
void additem()                                      //function to add item in cart
{
    printf("\n you have called additem\n");
    printf("\nenter the code and quantity of the item to be added to your cart:");
    scanf("%d %d",&c[inum].code,&c[inum].quantity);

    c[inum].cost=c[inum].quantity*stock[c[inum].code][2];

    printf("\n the item with code%d is added to the cast\n", c[inum].code);
    printf("\n your cart contains....\n");
    printf("\n item code\t quantity\tcost\n");
    printf("%d\t\t%d\t\t%0.2f",c[inum].code,c[inum].quantity,c[inum].cost);

    stock[c[inum].code][1]=stock[c[inum].code][1]-c[inum].quantity;
```

```
    inum++;
    updatebill();
    return;
}

void deleteitem()                                   //function to delete last item in cart
{
    printf("\n last item from your cart deleted\n");
    inum--;

    stock[c[inum].code][1]=stock[c[inum].code][1]+c[inum].quantity;
    updatebill();
    return;
}
void updatebill()                           //function to update total cost using latest cart item
{
    int i;
    total=0;
    printf("\n there are %d items in your cart...\n\n",inum);

    for(i=0;i<inum;i++)
        total=total+c[i].cost;
    return;
}

void displaycart()                                  //function which shows final cart with grand total
{
    int i;
    printf("\n there are %d items in your cart...\n\n",inum);
    printf("\n itemcode\tquantity\tamount\n");
```

```
    for(i=0;i<inum;i++)
        printf("\n%d\t\t%d\t\t%5.2f",c[i].code,c[i].quantity,c[i].cost);
    printf("\n\n\n\t\t\tGrand total is:%5.2f\n",total);
    return;
}
```

OUTPUT:-


"C:\Users\SWAPNIL\Desktop\C PROGRAM\C-LAB\shopping_cart.exe"
item code quantity price
1 8 100
2 10 200
3 15 150
4 20 250
please enter your choice:
1: add item to cart 2:delete item from cart 3:display 4:exit:1
enter the code and quantity of the item to be added to your cart:2 5
the item with code2 is added to the cast
your cart contains....
item code quantity cost
2 5 1000.00
there are 1 items in your cart...
item code quantity price
1 8 100
2 5 200
3 15 150
4 20 250
please enter your choice:
1: add item to cart 2:delete item from cart 3:display 4:exit:1
enter the code and quantity of the item to be added to your cart:1 4
the item with code1 is added to the cast
your cart contains....
item code quantity cost
1 4 400.00
there are 2 items in your cart...

```
item code       quantity        price
1               4               100
2               5               200
3               15              150
4               20              250

 please enter your choice:

 1: add item to cart 2:delete item from cart 3:display 4:exit:3

 there are 2 items in your cart...


 itemcode       quantity        amount

2               5               1000.00
1               4               400.00


                        Grand total is:1400.00


item code       quantity        price
1               4               100
2               5               200
3               15              150
4               20              250

 please enter your choice:

 1: add item to cart 2:delete item from cart 3:display 4:exit:4

Process returned 0 (0x0)   execution time : 133.682 s
Press any key to continue.
```