**Code:**

#include<stdio.h>

#include<stdlib.h>

void additem();

void deleteitem();

void updatebill();

void displaycart();

int stock[5][3]={{0,0,0},{1,12,150},{2,15,100},{3,17,200},{4,25,300}}; //Initializing the Stocks of products

typedef struct{

int code;

int quantity;

float cost;

}cartitems;

cartitems c[10]; //array of structure

int inum=0;

float total=0;

int main()

{

int i,j,n,choice; //Show User the choice

do{

printf("\n\nItem code\tQuantity\tPrice\n");

for(i=1;i<5;i++)

{

for(j=0;j<3;j++)

printf("%d\t\t",stock[i][j]);

printf("\n");

}

printf("\n Please enter your choice:"); //Ask user The choice

printf("\n\n1:Add item to cart \n2:Delete item from cart \n3:Display\n4:Exit:");

scanf("%d",&choice);

switch(choice)

{

case 1:additem(); //Calling ADD item function

break;

case 2:deleteitem(); //Calling Delete item function

break;

case 3:displaycart(); //Calling Display cart function

break;

default: exit(0); //Exit program

};

}while(1);

return 0;

}

void additem() //Function definition of Deleting item

{

printf("\n You have called Additem\n"); //adding the user's choice item

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("\nThe item with code %d is added to the cast\n", c[inum].code);

printf("\n Your cart contains:-\n"); //Showing the updated cart

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 definition of Deleting item

{

printf("\n Your have called deleteitem()\n");

printf("\n Last item from your cart deleted\n");

inum--;

stock[c[inum].code][1]=stock[c[inum].code][1]+c[inum].quantity; //deleting the user's choice item

updatebill();

return;

}

void updatebill() //update the bill

{

int i;

total=0;

printf("\n You have called updatebill\n");

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() //defining the display cart

{

int i;

printf("\n You have called displaycart()\n");

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 0;

}

**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

**Output:**



