Mini Project: Shopping Mall Software

Batch:S2

Aim:

Implementation of a shopping mall software system using basic data structure concepts like linked list, searching, sorting, etc.

Problem statement:

Design an application in C++ for any of the following systems with the use of appropriate data structures. Perform the following operations on it 1.Create a menu card to choose the shopping item.

- 2.Add an item in the shopping list
- 3.Edit/Update a the shopping list
- 4. Delete an item from the shopping list.
- 5.Display the final bill and grand total.
- 6.Search an item from the bill.
- 7. Sort the bill by prices.
- 8.Exit.

Pre-requisites:

Previous concepts of linked list and operations of linked list, searching and sorting.

Requirements:

Software: GCC Compiler, IDE.

Hardware: Personal computer with 500GB HDD, Intel Core I3 processor, 4GB RAM.

Description:

This project is develop by Creative Software Solution. It provide facilies Print Bills, see the price of each thing, see the detail of shopping, Online Shopping. It uses the basic concepts of data structures like linked list, searching and sorting.

Benefits of a Mobile Shopping Mall Software:

- 1. Smartphones are everywhere!
- 2. Mobile technology is easy to use.
- 3. Customers are in charge of transactions with mobile technology.
- 4. Sales and marketing agents will develop relationships with and an understanding of the needs for each customer.
- 5. Staying connected with your customers is easy.
- 6. Increased customer satisfaction.
- 7. Empowered customers, employees and merchants.
- 8. Saved costs and elevated ROI.

Implementation:

Singly linked list:

- 1. Singly linked list is a basic linked list type.
- 2. Singly linked list is a collection of nodes linked togather in a sequential way where each node of singly linked list contains data feild and an address feild which contains the reference of the next node.
- 3. Singly linked list can contain multiple data feilds but should contain at least single address feild pointing to its connected next node.
- 4. To perform any operation on a linked list we must keep track/reference of the first node which may be reffered by head pointer variable.
- 5. In singly linked list address feild of last node must contain a NULL value specifying end of the list.

Advantages of linked lists over arrays:

1) Dynamic size

2) Ease of insertion/deletion

Sorting Techniques:

Bubble sort is the simplest algorithm that works by repeatedly swapping the adjacent elements if they are in wrong order.

Searching Techniques:

Linear search is used on a collections of items. It relies on the technique of traversing a list from start to end by exploring properties of all the elements that are found on the way.

For example, consider an array of integers of size N. You should find and print the position of all the elements with value x. Here, the linear search is based on the idea of matching each element from the beginning of the list to the end of the list with the integer x, and then printing the position of the element if the condition is `True'.

Source Code:

```
#include<iostream>
#include<string>
#include<stdio.h>
#include<cstring> //header file
#include<cstdlib>
#include<iomanip>
using namespace std;
/* LINKED LIST*/
struct node
      string name;
      int price;
      struct node *next;
}*start;
class customer {
                                         //customer class
      protected:
           string name;
           int cus;
           long int ph no;
           string address;
           string email;
      public:
                                         //getting input from customer
      void getData() {
           cout<<"************** WELCOME TO THE SHOPPING MALL
cout<<"ARE YOU SHOPPING WITH US FOR THE FIRST TIME (press '1' for
'yes', '0' for 'no') "<<endl;
           cin>>cus;
           if(cus==1){
                 cout<<"PLEASE ENTER YOUR NAME"<<endl;</pre>
                 cin.get();
                 getline(cin,name);
                 cout << "PLEASE ENTER YOUR PHONE NUMBER" << endl;
                 cin>>ph no;
                 cout<<"PLEASE ENTER YOUR ELECTRONIC MAIL ADDRESS"<<endl;</pre>
                 cin.get();
                 getline(cin,email);
                 cout<<"PLEASE ENTER YOUR RESIDENTAL ADDRESS"<<endl;</pre>
                 cin.get();
```

```
getline(cin,address);
cout<<"*************************
*******"<<endl;
          }
          else {
                cout << "ENTER YOUR PHONE NUMBER" << endl;
               cin>>ph_no;
*******"<<endl<<endl;
     }
}c;
class single_llist:public customer
{
     public:
          node* create_node(int, string);
          void insert_last(int, string);
          void delete pos();
          void display();
          void sorting();
          void searching();
          single_llist()
               start = NULL;
          }
};
node *single_llist::create_node(int value, string name)
{
     struct node *temp, *s;
     temp = new(struct node);
     if (temp == NULL)
          cout<<"Memory not allocated "<<endl;</pre>
          return 0;
     }
     else
     {
          temp->name = name;
          //strcpy(temp->name, name);
          temp->price = value;
          temp->next = NULL;
          return temp;
     }
void single llist::insert last(int value, string name) {
     struct node *temp, *s;
     temp = create node(value, name);
     s = start;
     if(s != NULL) {
          while (s->next)
               s = s->next;
          s->next = temp;
     }
```

```
else
            start = temp;
      cout<<"Element is Inserted "<<endl;</pre>
void single llist::delete pos()
{
      int pos, i,counter = 0;
      char ch;
      if (start == NULL)
            cout<<"List is empty"<<endl;</pre>
            return;
      cout<<"Enter the position of value to be deleted: ";</pre>
      cin>>pos;
      struct node *s, *ptr;
      s = start;
      if (pos == 1)
            start = s->next;
      }
      else
      {
            while (s != NULL)
                  s = s->next;
                  counter++;
            if (pos > 0 && pos <= counter)
            {
                   s = start;
                   for (i = 1;i < pos;i++)
                   {
                         ptr = s;
                         s = s->next;
                   ptr->next = s->next;
            }
            else
            {
                   cout<<"Position out of range"<<endl;</pre>
            //free(s);
            cout << "Element Deleted" << endl;
      }
void single_llist::display() {
      int total = 0;
      int total1 = 0;
      int count =0;
      char ch1;
    sorting();//function to sort the elements of the bill on the basis of the
price
      struct node *temp;
```

```
if (start == NULL)
           cout<<"The Bill is Empty"<<endl;</pre>
           return;
     }
     temp = start;
     cout << endl;
     cout<<"BILL:"<<endl;
     cout<<setw(7)<<left<<"SR NO."<<setw(20)<<"ITEMS"<<setw(10)<<"PRICE"<<endl;
     while (temp != NULL) {
     count ++;
     cout<<setw(7)<<count<<setw(20)<<temp->name<<setw(10)<<temp->price<<endl;</pre>
           total += temp->price;
           temp = temp->next;
     }
     cout << endl;
     cout<<"Total: "<<total<<endl;</pre>
void single_llist::sorting() {
   node *p=start,*q=start;
   while(p->next!=NULL)
    {
       while(q->next!=NULL)
       {
           if(q->price < q->next->price)
               swap(q->price,q->next->price);
               swap(q->name,q->next->name);
           q=q->next;
       }
       p=p->next;
       q=start;
    }
void single llist::searching(){//function to search an element from the bill
   node *p=start;
   string toFind;
   cout<<"Enter the name of item you want to search from the bill:";
   cin.get();
   getline(cin, toFind);
   while(p!=NULL)
    {
       if(toFind==p->name)
           cout<<"The price of the item is:Rs "<<p->price;
           break;
       p=p->next;
    }
/* END LL**/
int main ()
```

```
{
      single llist sl;
      start = NULL;
      c.getData();
      while(1) {
            char ch;
            cout << "Do you want to add items? (y/n)";</pre>
            cin >>ch;
            cout <<endl;</pre>
            if(ch == 'n'||ch=='N')
                   break;
            int choice, choice1, choice2;
            cout<<"Enter '1' for 'grocery' "<<endl;</pre>
            cout<<"Enter '2' for 'dairy products' "<<endl;</pre>
            cout<<"Enter '3' for 'home needs' "<<endl;</pre>
            cout<<"Enter '4' for 'personal care' "<<endl;</pre>
            cout<<"Enter '5 for 'packed foods' "<<endl;</pre>
            cin >> choice;
            if(choice==1) {
                   cout<<"Enter '1' for 'cooking oil' "<<endl;</pre>
                   cout<<"Enter '2' for 'dals' "<<endl;</pre>
                   cout<<"Enter '3' for 'dry fruits' "<<endl;</pre>
                   cout<<"Enter '4' for 'masala and spices' "<<endl;</pre>
                   cout<<"Enter '5 for 'pulses' "<<endl;</pre>
                   cin>>choice1;
                   if(choice1==1) {
                         cout<<"Enter '1' for 'dalda: 200 Rs.' "<<endl;</pre>
                         cout<<"Enter '2' for 'sunflower: 350 Rs.' "<<endl;</pre>
                         cout<<"Enter '3' for 'mustard: 500 Rs.' "<<endl;</pre>
                         cin >> choice2;
                         if(choice2 == 1)
                                sl.insert last( 200, "dalda");
                         else if(choice2 == 2)
                                sl.insert_last( 350, "sunflower");
                         else if(choice2==3)
                                sl.insert_last( 500, "mustard");
                }
                   else if(choice1==2) {
                         cout<<"Enter '1' for 'beans: 200 Rs.' "<<endl;</pre>
                         cout<<"Enter '2' for 'masoor: 450 Rs.' "<<endl;</pre>
                         cout<<"Enter '3' for 'rajma: 350 Rs.' "<<endl;</pre>
                         cin >> choice2;
                          if(choice2 == 1)
                                sl.insert last( 200, "beans");
                         else if(choice2 == 2)
                                sl.insert last( 450, "masoor");
                         else if(choice2==3)
                                sl.insert last( 350, "rajma");
                   }
```

```
else if(choice1==3) {
            cout<<"Enter '1' for 'raisin: 249 Rs.' "<<endl;</pre>
            cout<<"Enter '2' for 'almonds: 279 Rs.' "<<endl;</pre>
            cout<<"Enter '3' for 'walnuts: 299 Rs.' "<<endl;</pre>
            cin >> choice2:
            if(choice2 == 1)
                   sl.insert last( 249, "raisin");
            else if(choice2 == 2)
                   sl.insert last( 279, "almonds");
            else if(choice2==3)
                   sl.insert last( 299, "walnuts");
      }
      else if(choice1==4) {
            cout<<"Enter '1' for 'black pepper: 15 Rs.' "<<endl;</pre>
            cout<<"Enter '2' for 'cinnamon: 19 Rs.' "<<endl;</pre>
            cout<<"Enter '3' for 'garam masala: 125 Rs.' "<<endl;</pre>
            cin >> choice2;
            if(choice2 == 1)
                   sl.insert last( 15, "black pepper");
            else if(choice2 == 2)
                   sl.insert last( 19, "cinnamon");
            else if(choice2==3)
       sl.insert_last( 125, "garam masala");
      else if(choice1==5) {
            cout<<"Enter '1' for 'green peas: 17 Rs.' "<<endl;</pre>
            cout<<"Enter '2' for 'lentils: 47 Rs.' "<<endl;</pre>
            cout<<"Enter '3' for 'pea nuts: 57 Rs.' "<<endl;</pre>
            cin >> choice2;
            if(choice2 == 1)
                   sl.insert last( 17, "green peas");
            else if(choice2 == 2)
                   sl.insert_last( 47, "lentils");
            else if(choice2==3)
                   sl.insert_last( 57, "pea nuts");
      }
}
else if(choice==2) {
      cout<<"Enter '1' for 'butter' "<<endl;</pre>
      cout<<"Enter '2' for 'chesse' "<<endl;</pre>
      cout<<"Enter '3' for 'milk' "<<endl;</pre>
      cout<<"Enter '4' for 'curd' "<<endl;</pre>
      cout<<"Enter '5 for 'shrikhand' "<<endl;</pre>
      cin >> choice1;
      if(choice1==1) {
            cout<<"Enter '1' for 'britania: 122 Rs.' "<<endl;</pre>
          cout<<"Enter '2' for 'amul: 129 Rs.' "<<endl;</pre>
          cout<<"Enter '3' for 'kwality: 133 Rs.' "<<endl;</pre>
            cin >> choice2;
```

if(choice2 == 1)

```
sl.insert last( 122, "britania");
                         else if(choice2 == 2)
                               sl.insert last( 129, "amul");
                         else if(choice2==3)
                               sl.insert_last( 133, "kwality");
                  }
                  else if(choice1==2) {
                        cout<<"Enter '1' for 'amul: 17 Rs.' "<<endl;</pre>
                         cout<<"Enter '2' for 'govardhan: 23 Rs.' "<<endl;</pre>
                         cout<<"Enter '3' for 'le ferme: 27 Rs.' "<<endl;</pre>
                         cin >> choice2;
                         if(choice2 == 1)
                               sl.insert last( 17, "amul");
                         else if(choice2 == 2)
                               sl.insert last( 23, "govardhan");
                         else if(choice2==3)
                               sl.insert_last( 27, "le ferme");
                  }
                  else if(choice1==3) {
                        cout<<"Enter '1' for 'sumul: 19 Rs.' "<<endl;</pre>
                         cout<<"Enter '2' for 'mother dairy: 20 Rs.' "<<endl;</pre>
                         cout<<"Enter '3' for 'amul: 22 Rs.' "<<endl;</pre>
                        cin >> choice2;
                         if(choice2 == 1)
                               sl.insert last( 19, "sumul");
                         else if(choice2 == 2)
                               sl.insert_last( 20, "mother dairy");
                         else if(choice2==3)
                               sl.insert last( 22, "amul");
                  }
                  else if(choice1==4) {
                        cout<<"Enter '1' for 'kiwi kiss: 23 Rs.' "<<endl;</pre>
                         cout<<"Enter '2' for 'amul: 25 Rs.' "<<endl;</pre>
                        cout<<"Enter '3' for 'nestle: 26 Rs.' "<<endl;</pre>
                        cin >> choice2;
                         if(choice2 == 1)
                               sl.insert_last( 23, "kiwi kiss");
                         else if(choice2 == 2)
                               sl.insert last( 25, "amul");
                         else if(choice2==3)
                               sl.insert last( 26, "nestle");
                  }
                  else if(choice1==5) {
                         cout<<"Enter '1' for 'kesar: 190 Rs.' "<<endl;</pre>
                         cout<<"Enter '2' for 'mango: 210 Rs.' "<<endl;</pre>
                         cout<<"Enter '3' for 'choco-strawberry: 250 Rs.'</pre>
"<<endl;
                         cin >> choice2;
                         if(choice2 == 1)
                               sl.insert last( 190, "kesar" );
                         else if(choice2 == 2)
                               sl.insert_last( 210, "mango");
```

```
else if(choice2==3)
                   sl.insert last( 250, "choco-strawberry");
      }
}
else if(choice==3) {
      cout<<"Enter '1' for 'detergent' "<<endl;</pre>
      cout<<"Enter '2' for 'cleaners' "<<endl;</pre>
      cout<<"Enter '3' for 'air freshners' "<<endl;</pre>
      cout<<"Enter '4' for 'pooja' "<<endl;</pre>
      cout<<"Enter '5 for 'lights and bulbs' "<<endl;</pre>
      cin >> choice1;
      if(choice1==1) {
            cout<<"Enter '1' for 'surf excel: 70 Rs.' "<<endl;</pre>
            cout<<"Enter '2' for 'rin: 75 Rs.' "<<endl;</pre>
            cout<<"Enter '3' for 'ariel: 79 Rs.' "<<endl;</pre>
            cin >> choice2;
            if(choice2 == 1)
                   sl.insert_last( 70, "surf excel");
            else if(choice2 == 2)
                  sl.insert last( 75, "rin");
            else if(choice2==3)
                   sl.insert last( 79, "ariel");
      }
      else if(choice1==2) {
            cout<<"Enter '1' for 'domestos: 180 Rs.' "<<endl;</pre>
            cout<<"Enter '2' for 'mr muscels: 199 Rs.' "<<endl;</pre>
            cout<<"Enter '3' for 'colorox: 223 Rs.' "<<endl;</pre>
            cin >> choice2;
            if(choice2 == 1)
                   sl.insert_last( 180, "domestos");
            else if(choice2 == 2)
                  sl.insert last( 199, "mr muscels");
            else if(choice2==3)
                   sl.insert last( 223, "colorox");
      }
      else if(choice1==3) {
            cout<<"Enter '1' for 'airwick: 98 Rs.' "<<endl;</pre>
            cout<<"Enter '2' for 'godrej: 112 Rs.' "<<endl;</pre>
            cout<<"Enter '3' for 'odonil: 143 Rs.' "<<endl;</pre>
            cin >> choice2;
             if(choice2 == 1)
                   sl.insert_last( 98, "airwick");
            else if(choice2 == 2)
                  sl.insert_last( 112, "gogrej");
            else if(choice2==3)
                   sl.insert last( 143, "odonil");
      }
      else if(choice1==4) {
            cout<<"Enter '1' for 'agarbati: 27 Rs.' "<<endl;</pre>
            cout<<"Enter '2' for 'dhoop stick: 35 Rs.' "<<endl;</pre>
            cout<<"Enter '3' for 'wax: 45 Rs.' "<<endl;</pre>
            cin >> choice2;
```

```
if(choice2 == 1)
                   sl.insert last( 27, "agarbati");
            else if(choice2 == 2)
                   sl.insert last( 35, "dhoop stick");
            else if(choice2==3)
                   sl.insert_last( 45, "wax");
      }
      else if(choice1==5) {
                  cout<<"Enter '1' for 'night bulb: 15 Rs.' "<<endl;</pre>
                 cout<<"Enter '2' for 'tube light: 55 Rs.' "<<endl;</pre>
            cout<<"Enter '3' for '100w bulb: 88 Rs.' "<<endl;
            cin >> choice2;
            if(choice2 == 1)
                 sl.insert last( 15, "night bulb");
            else if(choice2 == 2)
                 sl.insert last( 55, "tube light");
            else if(choice2==3)
                 sl.insert last( 88, "100w bulb");
      }
}
else if(choice==4) {
      cout<<"Enter '1' for 'skin care' "<<endl;</pre>
      cout<<"Enter '2' for 'hair care' "<<endl;</pre>
      cout<<"Enter '3' for 'shaving needs' "<<endl;</pre>
      cout<<"Enter '4' for 'deos and perfumes' "<<endl;</pre>
      cout<<"Enter '5 for 'oral care' "<<endl;</pre>
      cin >> choice1;
      if(choice1==1) {
            cout<<"Enter '1' for 'cold cream: 79 Rs.' "<<endl;</pre>
            cout<<"Enter '2' for 'suns cream: 110 Rs.' "<<endl;</pre>
            cout<<"Enter '3' for 'moisturizer: 189 Rs.' "<<endl;</pre>
            cin >> choice2;
            if(choice2 == 1)
                   sl.insert last( 79, "cold cream");
            else if(choice2 == 2)
                  sl.insert_last( 110, "suns cream");
            else if(choice2==3)
                   sl.insert_last( 189, "moisturizer");
      }
      else if(choice1==2) {
          cout<<"Enter '1' for 'oils: 49 Rs.' "<<endl;</pre>
            cout<<"Enter '2' for 'conditioner: 115 Rs.' "<<endl;</pre>
            cout<<"Enter '3' for 'shampoo: 200 Rs.' "<<endl;</pre>
            cin >> choice2;
            if(choice2 == 1)
                   sl.insert_last( 49, "oils");
            else if(choice2 == 2)
                 sl.insert last( 115, "conditioner");
            else if(choice2==3)
                  sl.insert last( 200, "shampoo");
      }
      else if(choice1==3) {
```

```
cout<<"Enter '1' for 'shaving cream: 178 Rs.' "<<endl;</pre>
            cout<<"Enter '2' for 'after shave: 300 Rs.' "<<endl;</pre>
            cout<<"Enter '3' for 'trimer: 1999 Rs.' "<<endl;</pre>
            cin >> choice2;
            if(choice2 == 1)
                   sl.insert_last( 178, "shaving cream");
            else if(choice2 == 2)
                   sl.insert last( 300, "after shave");
            else if(choice2==3)
                   sl.insert last( 1999, "trimer");
      }
      else if(choice1==4) {
                cout<<"Enter '1' for 'park avenue: 200 Rs.' "<<endl;</pre>
                   cout<<"Enter '2' for 'nivia: 235 Rs.' "<<endl;
              cout<<"Enter '3' for 'nike: 300 Rs.' "<<endl;</pre>
            cin >> choice2;
            if(choice2 == 1)
                   sl.insert_last( 200, "park avenue");
            else if(choice2 == 2)
            sl.insert_last( 235, "nivia");
            else if(choice2==3)
                   sl.insert last( 300, "nike");
      }
      else if(choice1==5) {
            cout<<"Enter '1' for 'brush: 79 Rs.' "<<endl;</pre>
            cout<<"Enter '2' for 'tooth paste: 149 Rs.' "<<endl;</pre>
            cout<<"Enter '3' for 'water flosser: 227 Rs.' "<<endl;</pre>
            cin >> choice2;
            if(choice2 == 1)
                   sl.insert last( 79, "brush");
            else if(choice2 == 2)
                   sl.insert last( 149, "tooth paste");
            else if(choice2==3)
                   sl.insert last( 227, "water flosser");
      }
}
else if(choice==5) {
      cout<<"Enter '1' for 'biscuits' "<<endl;</pre>
      cout<<"Enter '2' for 'breakfast cerels' "<<endl;
      cout<<"Enter '3' for 'jams and spreads' "<<endl;</pre>
      cout<<"Enter '4' for 'choclate' "<<endl;</pre>
      cout<<"Enter '5 for 'canned food' "<<endl;</pre>
      cin >> choice1;
      if(choice1==1) {
            cout<<"Enter '1' for 'parle-G: 10 Rs.' "<<endl;</pre>
            cout<<"Enter '2' for 'tiger: 12 Rs.' "<<endl;</pre>
            cout<<"Enter '3' for 'marigold: 16 Rs.' "<<endl;</pre>
            cin >> choice2;
            if(choice2 == 1)
                   sl.insert_last( 10, "parle-G");
            else if(choice2 == 2)
                   sl.insert last( 12, "tiger");
            else if(choice2==3)
                   sl.insert_last( 16, "marigold");
```

```
}
                  else if(choice1==2) {
                           cout<<"Enter '1' for 'oats: 116 Rs.' "<<endl;</pre>
                             cout<<"Enter '2' for 'kellogg's: 200 Rs.' "<<endl;</pre>
                               cout<<"Enter '3' for 'chocos: 250 Rs.' "<<endl;</pre>
                        cin >> choice2;
                         if(choice2 == 1)
                         sl.insert last( 116, "oats");
                        else if(choice2 == 2)
                               sl.insert last( 200, "kellogg");
                        else if(choice2==3)
                                     sl.insert last( 250, "chocos");
                  }
                  else if(choice1==3) {
                      cout<<"Enter '1' for 'kissan: 199 Rs.' "<<endl;</pre>
                        cout<<"Enter '2' for 'mapro: 229 Rs.' "<<endl;</pre>
                        cout<<"Enter '3' for 'nuttela: 359 Rs.' "<<endl;</pre>
                        cin >> choice2;
                        if(choice2 == 1)
                                     sl.insert last( 199, "kissan");
                        else if(choice2 == 2)
                               sl.insert last( 229, "mapro");
                         else if(choice2==3)
                         sl.insert_last( 359, "nuttela");
                  }
                  else if(choice1==4) {
                          cout<<"Enter '1' for 'silk: 65 Rs.' "<<endl;</pre>
                               cout<<"Enter '2' for 'dark choclate: 100 Rs.'</pre>
"<<endl;
                               cout<<"Enter '3' for 'ferrero rocher: 500 Rs.'
"<<endl;
                        cin >> choice2;
                         if(choice2 == 1)
                                     sl.insert last( 65, "silk");
                        else if(choice2 == 2)
                               sl.insert_last( 100, "dark choclate");
                        else if(choice2==3)
                                 sl.insert_last( 500, "ferrero rocher");
                  }
                  else if(choice1==5) {
                         cout<<"Enter '1' for 'maggi: 29 Rs.' "<<endl;
                        cout<<"Enter '2' for 'instant pakoda: 79 Rs.' "<<endl;</pre>
                        cout<<"Enter '3' for 'rasgulla : 120 Rs.' "<<endl;</pre>
                        cin >> choice2;
                        if(choice2 == 1)
                               sl.insert_last( 29, "maggi");
                        else if(choice2 == 2)
                               sl.insert last( 79, "instant pakoda");
                        else if(choice2==3)
                               sl.insert last(120 , "rasgulla");
                  }
            }
      }
```

```
sl.display();
     char ch1;
     while(1)
         cout<<"Do you want to search an item from the list(y/n)?";
         cin>>ch1;
         if(ch1=='y' || ch1=='Y')
             sl.searching();//function to search an element from the bill
         else
            break;
     }
     while(1)
         cout << "Do you want to delete item(y/n)?";
         cin>>ch1;
         if(ch1=='y' || ch1=='Y')
             sl.delete_pos();
            else
            break;
     sl.display();
          cout<<"
                                      THANK YOU FOR JOINING US!!!!! \n PLEASE
VISIT AGAIN.....
                                             ";
     return 0;
}
/*OUTPUT:
******
                  WELCOME TO THE SHOPPING MALL
                                               ********
ARE YOU SHOPPING WITH US FOR THE FIRST TIME (press '1' for 'yes', '0' for 'no')
PLEASE ENTER YOUR NAME
xyz
PLEASE ENTER YOUR PHONE NUMBER
PLEASE ENTER YOUR ELECTRONIC MAIL ADDRESS
xyz21@gmial.com
PLEASE ENTER YOUR RESIDENTAL ADDRESS
pune
***************************
Do you want to add items? (y/n)y
Enter '1' for 'grocery'
Enter '2' for 'dairy products'
Enter '3' for 'home needs'
Enter '4' for 'personal care'
Enter '5 for 'packed foods'
Enter '1' for 'cooking oil'
```

```
Enter '2' for 'dals'
Enter '3' for 'dry fruits'
Enter '4' for 'masala and spices'
Enter '5 for 'pulses'
Enter '1' for 'dalda: 200 Rs.'
Enter '2' for 'sunflower: 350 Rs.'
Enter '3' for 'mustard: 500 Rs.'
Element is Inserted
Do you want to add items? (y/n)y
Enter '1' for 'grocery'
Enter '2' for 'dairy products'
Enter '3' for 'home needs'
Enter '4' for 'personal care'
Enter '5 for 'packed foods'
Enter '1' for 'butter'
Enter '2' for 'chesse'
Enter '3' for 'milk'
Enter '4' for 'curd'
Enter '5 for 'shrikhand'
Enter '1' for 'amul: 17 Rs.'
Enter '2' for 'govardhan: 23 Rs.'
Enter '3' for 'le ferme: 27 Rs.'
Element is Inserted
Do you want to add items? (y/n)y
Enter '1' for 'grocery'
Enter '2' for 'dairy products'
Enter '3' for 'home needs'
Enter '4' for 'personal care'
Enter '5 for 'packed foods'
Enter '1' for 'detergent'
Enter '2' for 'cleaners'
Enter '3' for 'air freshners'
Enter '4' for 'pooja'
Enter '5 for 'lights and bulbs'
Enter '1' for 'airwick: 98 Rs.'
Enter '2' for 'godrej: 112 Rs.'
Enter '3' for 'odonil: 143 Rs.'
Element is Inserted
Do you want to add items? (y/n)y
Enter '1' for 'grocery'
Enter '2' for 'dairy products'
Enter '3' for 'home needs'
Enter '4' for 'personal care'
Enter '5 for 'packed foods'
Enter '1' for 'skin care'
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Enter '2' for 'hair care'
Enter '3' for 'shaving needs'
Enter '4' for 'deos and perfumes'
Enter '5 for 'oral care'
Enter '1' for 'cold cream: 79 Rs.'
Enter '2' for 'suns cream: 110 Rs.'
Enter '3' for 'moisturizer: 189 Rs.'
Element is Inserted
Do you want to add items? (y/n)y
Enter '1' for 'grocery'
Enter '2' for 'dairy products'
Enter '3' for 'home needs'
Enter '4' for 'personal care'
Enter '5 for 'packed foods'
Enter '1' for 'detergent'
Enter '2' for 'cleaners'
Enter '3' for 'air freshners'
Enter '4' for 'pooja'
Enter '5 for 'lights and bulbs'
Enter '1' for 'domestos: 180 Rs.'
Enter '2' for 'mr muscels: 199 Rs.'
Enter '3' for 'colorox: 223 Rs.'
Element is Inserted
Do you want to add items? (y/n)y
Enter '1' for 'grocery'
Enter '2' for 'dairy products'
Enter '3' for 'home needs'
Enter '4' for 'personal care'
Enter '5 for 'packed foods'
Enter '1' for 'biscuits'
Enter '2' for 'breakfast cerels'
Enter '3' for 'jams and spreads'
Enter '4' for 'choclate'
Enter '5 for 'canned food'
Enter '1' for 'oats: 116 Rs.'
Enter '2' for 'kellogg's: 200 Rs.'
Enter '3' for 'chocos: 250 Rs.'
Element is Inserted
Do you want to add items? (y/n)y
Enter '1' for 'grocery'
Enter '2' for 'dairy products'
Enter '3' for 'home needs'
Enter '4' for 'personal care'
Enter '5 for 'packed foods'
Enter '1' for 'butter'
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Enter '2' for 'chesse'
Enter '3' for 'milk'
Enter '4' for 'curd'
Enter '5 for 'shrikhand'
Enter '1' for 'kesar: 190 Rs.'
Enter '2' for 'mango: 210 Rs.'
Enter '3' for 'choco-strawberry: 250 Rs.'
Element is Inserted
Do you want to add items? (y/n)n
BILL:
SR NO. ITEMS
                         PRICE
1
     mango
                         210
2
      dalda
                         200
      domestos
3
                         180
4
      odonil
                          143
                          116
5
      oats
                          79
6
     cold cream
7
      govardhan
                         23
Total: 951
Do you want to search an item from the list(y/n)?y
Enter the name of item you want to search from the bill:oats
The price of the item is:Rs 116Do you want to search an item from the list(y/n)?
Do you want to delete item(y/n)?y
Enter the position of value to be deleted: 3
Element Deleted
Do you want to delete item(y/n)?n
BTT.T.:
SR NO. ITEMS
                          PRICE
                          210
1
     mango
2
                          200
      dalda
      odonil
                          143
3
4
      oats
                          116
5
      cold cream
                          79
      govardhan
                          23
Total: 771
                     THANK YOU FOR JOINING US!!!!!
PLEASE VISIT AGAIN.....
*/
```

Conclusion:

Hence, we have successfully implemented this mini project on the shopping mall system by using the concepts of DSA like linked list, searching and sorting, etc.