**19F-0313 WAJID ALI**

**CODE:**

#include<iostream>

#include<string>

using namespace std;

struct Stack\_Node

{

string cuisine\_selection;

Stack\_Node\* link;

};

struct node

{

string name;

int distance;

int perhead;

int max\_people;

string address;

int decoration\_charges;

int promo;

int promo\_decoration;

node\* leftnode;

node\* rightnode;

};

node\* head;

class Marquees

{

private:

Stack\_Node\* Top;

Stack\_Node\* temp;

public:

node\* current;

node\* parrent;

Marquees()

{

head = NULL;

current = NULL;

parrent = NULL;

Top = NULL;

temp = NULL;

}

void insert\_marquee(string mar\_name, int mar\_distance, int perhead, int max\_people, string mar\_address, int mar\_decoration, int promo, int promo\_dec)

{

node\* new\_node = new node;

new\_node->name = mar\_name;

new\_node->distance = mar\_distance;

new\_node->perhead = perhead;

new\_node->max\_people = max\_people;

new\_node->address = mar\_address;

new\_node->decoration\_charges = mar\_decoration;

new\_node->promo = promo;

new\_node->promo\_decoration = promo\_dec;

new\_node->leftnode = NULL;

new\_node->rightnode = NULL;

if (head == NULL)

{

head = new\_node;

}

else

{

current = head;

while (current)

{

parrent = current;

if (new\_node->distance > current->distance)

{

current = current->rightnode;

}

else

{

current = current->leftnode;

}

}

if (new\_node->distance > parrent->distance)

{

parrent->rightnode = new\_node;

}

else

{

parrent->leftnode = new\_node;

}

}

}

void inorder\_display(node\* r)

{

if (r != NULL)

{

inorder\_display(r->leftnode);

cout << r->name << "\n";

cout << "\tDISTANCE FROM CITY : " << r->distance << endl << endl << endl;

inorder\_display(r->rightnode);

}

}

void search()

{

int search\_item;

int discount1, discount2, bill;

int discount\_bill;

int total\_guests;

cout << "ENTER MARQUEE DISTANCE FOR SEARCH : ";

cin >> search\_item;

system("cls");

current = head;

while (current != NULL)

{

if (current->distance == search\_item)

{

cout << "\n\tMARQUEE DETAIL\n";

cout << current->name;

cout << "\nMARQUEE ADDRESS : " << current->address;

cout << "\n\nMARQUEE DISTANCE FROM CITY : " << current->distance << " KM";

cout << "\n\nMARQUEE SPACE : " << current->max\_people << " people";

cout << "\n\nMARQUEE DECORATION CHARGES : " << current->decoration\_charges;

discount();

int x;

cout << "\n\nPRESS 1 FOR BOOKING";

cout << "\nPRESS 2 TO RETURN TO MARQUEES";

cout << "\nENTER VALUE : ";

cin >> x;

if (x == 1)

{

system("cls");

cout << "\n\t THANKS FOR BOOKING\n";

cout << current->name;

cout << "\n----------------------CUISINES MENU------------------------\n";

cuisine();

cout << endl << endl;

stack\_main();

cout << "\n\nCONGRATULATIONS YOUR CUISINES ARE SUCCESSFULLY ADDED\n";

cout << "\nENTER TOTAL GUESTS : ";

cin >> total\_guests;

system("cls");

int i;

cout << "\n\n\t---------DISCOUNTS ON PROMO CODE-----------\n";

cout << "\n\n\tPRESS 1 FOR 10 PERCENT DISCOUNT";

cout << "\n\n\tPRESS 2 FOR 15 PERCENT DISCOUNT BUT DECORATION CHARGES INCLUDED";

cout << "\n\nENTER VALUE : ";

cin >> i;

if (i == 1)

{

int y;

cout << "\n\nPROMO CODE FOR MARQUEE : " << current->promo;

cout << "\n\nENTER YOUR PROMO CODE : ";

cin >> y;

if (y == current->promo)

{

discount1 = 10;

bill = total\_guests \* current->perhead;

discount\_bill = bill \* discount1 / 100;

bill = bill - discount\_bill;

cout << "\n\nYOUR TOTAL BILL WITH INCLUDE 10 PERCENT DISCOUNT : " << bill;

}

else

{

cout << "\ninvalid promo code";

cout << "\n\nYOU LOST DISCOUNT";

bill = 0;

bill = total\_guests \* current->perhead;

cout << "\n\nYOUR TOTAL BILL WITHOUT DISCOUNT : " << bill;

}

}

else if (i == 2)

{

int z;

cout << "\n\nPROMO CODE FOR MARQUEE : " << current->promo\_decoration;

cout << "\n\nENTER YOUR PROMO CODE : ";

cin >> z;

if (z == current->promo\_decoration)

{

discount2 = 15;

bill = 0;

bill = total\_guests \* current->perhead;

bill = bill + current->decoration\_charges;

discount\_bill = bill \* discount2 / 100;

bill = bill - discount\_bill;

cout << "\n\nYOUR TOTAL BILL INCLUDE 15 PERCENT DISCOUNT : " << bill;

}

else

{

cout << "\ninvalid promo code";

cout << "\n\nYOU LOST DISCOUNT";

bill = 0;

bill = total\_guests \* current->perhead;

cout << "\n\nYOUR TOTAL BILL WITHOUT DISCOUNT : " << bill;

}

}

else

{

cout << "\n\nYOU LOST DISCOUNT";

bill = 0;

bill = total\_guests \* current->perhead;

cout << "\n\nYOUR TOTAL BILL WITHOUT DISCOUNT : " << bill;

}

}

else

{

system("cls");

inorder\_display(head);

search();

}

cout << endl;

break;

}

else if (current->distance > search\_item)

{

current = current->leftnode;

// cout << "DATA NOT FOUND";

}

else

{

current = current->rightnode;

}

}

}

void cuisine()

{

cout << "\n\n\t-------------SHUROAAT------------";

cout << "\n\n\tSOUP or JUICE";

cout << "\n\n\t-------------KHANA-------------";

cout << "\n\n\tCHICKEN BIRYANI / CHICKEN PALAO";

cout << "\n\tCHICKEN KARAHI / CHICKEN QOURMA";

cout << "\n\tCHICKEN TAKATUK / CHICKEN GINGER";

cout << "\n\tCHICKEN TIKKA BOTI";

cout << "\n\tCHICKEN MALAI BOTI";

cout << "\n\tCHICKEN ROAST";

cout << "\n\tRAITA SALAD(4 DIFFERENT TYPES)";

cout << "\n\tLIVE ROGHNI NAAN AND ROTI";

cout << "\n\n\t-------------MEETHA-------------";

cout << "\n\n\tKULFA";

cout << "\n\tHOT GULAB JAMUN";

cout << "\n\n\t-----------MASHROOBAT-----------";

cout << "\n\n\tGREEN TEA";

cout << "\n\tSOFT DRINK";

cout << "\n\tMINERAL WATER";

}

void push(string cuisine\_sel)

{

Stack\_Node\* newnode = new Stack\_Node;

newnode->cuisine\_selection = cuisine\_sel;

newnode->link = Top;

Top = newnode;

}

bool empty()

{

if (Top == NULL)

{

return true;

}

else

{

return false;

}

}

void pop()

{

if (empty() == true)

{

cout << "\nNO CUISINE WILL ENTER\n";

}

else

{

temp = Top;

Top = Top->link;

delete(temp);

}

}

void display()

{

temp = Top;

if (empty() == true)

{

cout << "\nNO CUISINE WILL ENTER\n";

}

else

{

cout << "\n\n\n\tYOUR SELECT CUISINES \n";

while (temp != NULL)

{

cout << endl << "\t";

cout << temp->cuisine\_selection;

temp = temp->link;

}

}

}

void stack\_main()

{

int r;

cout << "\n\nPRESS 1 TO SELECT YOUR CUISINE\n";

cout << "\nPRESS 2 TO REMOVE UPPER CUISINE\n";

cout << "\nPRESS 3 FOR NO SELECTION\n";

cout << "\nENTER VALUE : ";

cin >> r;

if (r == 1)

{

int n;

cout << "\n\t\tHOW MANY CUISINE YOU WANT TO ENTER : ";

cin >> n;

for (int i = 0; i < n; i++)

{

string c;

cout << "\n\n\t\tPLEASE SELECT CUISINE NAME FROM MENU : ";

cin >> c;

push(c);

}

cout << "\n\n\n\tSELECT ONE TIME MORE \n\tIF YOU NOT WANT TO SELECT MORE CUISINE ENTER 3\n\n";

stack\_main();

}

else if (r == 2)

{

cout << "\nYOU REMOVE YOUR UPPER CUISINE \n";

pop();

display();

}

else

{

cout << "\nYOU SELECT NO CUISINES";

display();

}

}

void discount()

{

cout << "\n\n\t~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~\n\n\t"

"GET 10 PERCENT DISCOUNT ON BOOKING \n\n\t~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~";

}

};

int main()

{

Marquees obj1;

obj1.insert\_marquee("--------------------------"

"\n|\t\t\t |\n| DEFENCE MARQUEE\t |\n|\t\t\t |\n| PER HEAD = 1000\t |"

"\n--------------------------\n", 12, 1000, 450, "Karachi-Super Highway, Bahira Town", 15000, 1122, 3344);

obj1.insert\_marquee("--------------------------"

"\n|\t\t\t |\n| KOHINOOR MARQUEE\t |\n|\t\t\t |\n| PER HEAD = 1200\t |"

"\n--------------------------\n", 14, 1200, 500, "KARACHI-Sector J,Phase-2 Bahira Enclave ", 20000, 3048, 7704);

obj1.insert\_marquee("--------------------------"

"\n|\t\t\t |\n| NOOR MARQUEE\t |\n|\t\t\t |\n| PER HEAD = 1100\t |"

"\n--------------------------\n", 16, 1100, 350, "Karachi-Phase 8,Bahira Town", 23000, 4558, 8554);

obj1.insert\_marquee("--------------------------"

"\n|\t\t\t |\n| THE GRAND MARQUEE\t |\n|\t\t\t |\n| PER HEAD = 900\t |"

"\n--------------------------\n", 18, 900, 300, "Karachi-Bahira Orchad, Main Raiwind Road", 34000, 2222, 3333);

obj1.insert\_marquee("--------------------------"

"\n|\t\t\t |\n| PRIME MARQUEE\t |\n|\t\t\t |\n| PER HEAD = 1300\t |"

"\n--------------------------\n", 20, 1300, 650, "Karachi-Qazi Ahmed Road, Bahira Town", 25000, 4444, 5555);

obj1.insert\_marquee("--------------------------"

"\n|\t\t\t |\n| EXCUSTIVE MARQUEE\t |\n|\t\t\t |\n| PER HEAD = 1500\t |"

"\n--------------------------\n", 21, 1500, 700, "Karachi-Tarnab Farms, GT Road", 40000, 6767, 7676);

obj1.insert\_marquee("--------------------------"

"\n|\t\t\t |\n| CONNEXION MARQUEE\t |\n|\t\t\t |\n| PER HEAD = 1350\t |"

"\n--------------------------\n", 8, 1350, 750, "Karachi-Milear Road", 27000, 9009, 8008);

obj1.insert\_marquee("--------------------------"

"\n|\t\t\t |\n| ELEGANT MARQUEE\t |\n|\t\t\t |\n| PER HEAD = 1450\t |"

"\n--------------------------\n", 15, 1450, 800, "Karachi-Saddar Road", 8000, 1009, 1020);

obj1.insert\_marquee("--------------------------"

"\n|\t\t\t |\n| MERAKI MARQUEE\t |\n|\t\t\t |\n| PER HEAD = 850\t |"

"\n--------------------------\n", 24, 850, 400, "Karachi-Hyderabad Road", 20500, 1076, 1098);

obj1.insert\_marquee("--------------------------"

"\n|\t\t\t |\n| PALM MARQUEE\t |\n|\t\t\t |\n| PER HEAD = 1550\t |"

"\n--------------------------\n", 13, 1550, 850, "Karachi-Canal Garden, Chundrigar Road", 350000, 1100, 2389);

obj1.inorder\_display(head);

obj1.search();

system("pause");

return 0;

}

**OUTPUT:**











