

Group B2

Title:- Use Adjacency List Representation Of Weighted graph.

```
#include<iostream>
using namespace std;
struct enode{
    string dest;
    int time;
    enode *link;
};
struct hnode{
    string city;
    hnode *down;
    enode *next;
};
class Flight{
    int n;
    hnode *start;
public:
    Flight(){
        start=NULL;
        n=0;
    }
    void create();
    void show();
};
void Flight::show(){
    hnode *temp;
    enode *tp;
    temp=start;
    while(temp!=NULL){
        cout<<temp->city;
        tp=temp->next;
        while(tp!=NULL){
            cout<<"->"<<tp->dest<<"|"<<tp->time<<"|";
            tp=tp->link;
        }
        cout<<"\n";
        temp=temp->down;
    }
}
void Flight::create(){
    enode *temp2;
    int i;
```

```

hnode *h1,*temp1;
enode *s;
char ch;
string data;
cout<<"\nHow many Cities?";
cin>>n;
while(n){
    h1=new hnode;
    cout<<"\nEnter The City Name";
    cin>>h1->city;
    h1->next=NULL;
    if(start==NULL){
        start=h1;
        temp1=h1;
    }
    else{
        temp1->down=h1;
        temp1=h1;
    }
    do{
        cout<<"\nEnter The Destination";
        cin>>data;
        if(data=="no"){
            break;
        }
        else{
            s= new enode;
            cout<<"\nEnter The time for go to"<<data;
            cin>>s->time;
            s->dest=data;
            s->link=NULL;
            if(temp1->next==NULL){
                temp1->next=s;
                temp2=s;
            }
            else{
                temp2->link=s;
                temp2=s;
            }
        }
        cout<<"\nIs There Any Another Destination";
        cin>>ch;
    }while(ch=='y' || ch=='Y');
    n--;
}

```

```

}
int main(){
    Flight f;
    string sc,des;
    char ans;
    int ch,in;
    do{
        cout<<"\n\t1.Create\n\t2.Display\n\t3.Check For Flights";
        cin>>ch;
        switch (ch)
        {
            case 1: f.create();
                    break;

            case 2: f.show();
                    break;
            default:
                    break;
        }
        cout<<"\nDo You want TO continue?";
        cin>>ans;
    }while(ans=='y' ||ans=='Y');
    return 0;
}

```

Output:

1.Create

2.Display

1

How many Cities?4

Enter The City NameJalgaon

Enter The DestinationPune

Enter The time for go toPune2

Is There Any Another Destinationn

Enter The City NamePune

Enter The DestinationMumbai

Enter The time for go toMumbai3

Is There Any Another Destinationn

Enter The City NameMumbai

Enter The DestinationDehli

Enter The time for go toDehli5

Is There Any Another Destinationn

Enter The City NameDehli

Enter The DestinationJalgaon

Enter The time for go toJalgaon6

Is There Any Another Destinationn

Do You want TO continue?y

1.Create

2.Display

2

Jalgaon->Pune|2|

Pune->Mumbai|3|

Mumbai->Dehli|5|

Dehli->Jalgaon|6|