

```

//6
#include <iostream>
#include<iomanip>
using namespace std;
const int MAX=30;
class FlightClass
{

FlightClass *link;
string city_name;
int duration;
public:
friend class graph_class;
FlightClass()
{
link=NULL;
city_name=" ";
duration=-1;
}
FlightClass(string city_name,int weight)
{
link=NULL;
this->city_name=city_name;
duration=weight;
}
};
class graph_class
{
FlightClass *head[MAX];
int n;
public:
graph_class(int num)
{
n=num;
for(int i=0;i<n;i++)
head[i]=NULL;
}
void insert(string first_city,string second_city,int time);
void readdata();
int getindex(string s1);
void display();
};

int graph_class::getindex(string s1)
{

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

if(head[i]->city_name==s1)
return i;
}
return -1;
}
void graph_class::insert(string first_city,string second_city, int time)

```

```

{

FlightClass *from;
FlightClass *to=new FlightClass(second_city,time);
int ind=getindex(first_city);
from=head[ind];
while(from->link!=NULL)
from=from->link;
from->link=to;
}
void graph_class::display()
{

FlightClass *from;
for(int i=0;i<n;i++)
{
from=head[i];
while(from!=NULL)
{
cout<<from->city_name<<"->";
from=from->link;
}
cout<<"NULL"<<endl;
}
}
void graph_class::readdata()
{
string first_city,second_city,tmpcity;
int flight,fcost;
cout<<"\nEnter Details of City:\n";
for(int i=0;i<n;i++)
{
head[i]=new FlightClass;
cout<<"\nEnter name of city "<<i+1<<" ";
cin>>head[i]->city_name;
}
cout<<"\nEnter Number of Flights : ";
cin>>flight;
for(int i=0;i<flight;i++)
{
cout<<"\nEnter Source:";
cin>>first_city;
cout<<"\nEnter Destination:";
cin>>second_city;
cout<<"\nEnter Time:";
cin>>fcost;
insert( first_city ,second_city,fcost);
}
}
int main()
{

int number,choice;
cout<<"\nEnter Number of Airport Stations ";
cin>>number;

```

```
graph_class gl(number);  
do  
{  
cout<< "Menu\n1.Insert Flight detail\n2. Display\n3.Exit\nSelect your choice ";  
cin>>choice;  
switch(choice)  
{  
case 1:  
gl.readdata();  
break;  
case 2:  
cout <<"*Adjacency List*"<< endl;  
gl.display();  
break;  
default:  
cout<<"\nInvalid Choice";  
}  
}  
while(choice!=3);  
return 0;  
}
```