NAME: Jagtap Rohit Badrinath

CLASS: SE COMPUTER

DIV: A

BATCH: B3

ASSIGNMENT NO:6

CODE :-

```
#include<iostream>
#include<string.h>
using namespace std;

class flight
{
	public:
		int am[10][10];
			char city_index[10][10];
		flight();
		int create();
		void display(int city_count);

};

flight::flight()
{
	int i,j;
	for(i=0;i<10;i++)
	{
		strcpy(city_index[i],"xx");
	}
	for(i=0;i<10;i++)
	{
		for(j=0;j<10;j++)
		{
			am[i][j]=0;
		}
	}
}

int flight::create()
```

```
{
	int city_count=0,j,si,di,wt;
	char s[10],d[10],c;
	do
	{
		cout<<"\n\tEnter Source City	: ";
		cin>>s;
		cout<<"\n\tEnter Destination City : ";
		cin>>d;
		for(j=0;j<10;j++)
		{
			if(strcmp(city_index[j],s)==0)
			break;
		}
		if(j==10)
		{
			strcpy(city_index[city_count],s);
			city_count++;
		}

		for(j=0;j<10;j++)
		{
			if(strcmp(city_index[j],d)==0)
			break;
		}

		if(j==10)
		{
			strcpy(city_index[city_count],d);
			city_count++;
		}

		cout<<"\n\t Enter Distance From "<<s<<" And "<<d<<": ";
		cin>>wt;

		for(j=0;j<10;j++)
		{
			if(strcmp(city_index[j],s)==0)
				si=j;
```

```
        if(strcmp(city_index[j],d)==0)
                di=j;
}



am[si][di]=wt;
cout<<"\n\t Do you want to add more cities.....(y/n) : ";
                cin>>c;
        }while(c=='y'||c=='Y');
 return(city_count);
}
void flight::display(int city_count)
{
        int i,j;
        cout<<"\n\t Displaying Adjacency Matrix :\n\t";
        for(i=0;i<city_count;i++)
                cout<<"\t"<<city_index[i];
        cout<<"\n";

        for(i=0;i<city_count;i++)
        {
                cout<<"\t"<<city_index[i];
                for(j=0;j<city_count;j++)
                {
                        cout<<"\t"<<am[i][j];
                }
                cout<<"\n";
        }
}

int main()
{
        flight f;
        int n,city_count;
        char c;
        do
        {
                cout<<"\n\t***** Flight Main Menu *****";
```

```
cout<<"\n\t1. Create \n\t2. Adjacency Matrix\n\t3. Exit";
cout<<"\n\t.....Enter your choice : ";
cin>>n;
switch(n)
{
	case 1:
			city_count=f.create();
			break;
		case 2:
			f.display(city_count);
			break;
		case 3:
			return 0;
		}
		cout<<"\n\t Do you Want to Continue in Main Menu....(y/n) : ";
		cin>>c;
	}while(c=='y'||c=='Y');
	return 0;
}
```

OUTPUT:-

```
***** Flight Main Menu *****
1. Create
2. Adjacency Matrix
3. Exit
.....Enter your choice : 1

Enter Source City      : pune

Enter Destination City : wai

 Enter Distance From pune And wai: 123

 Do you want to add more cities.....(y/n) : y

Enter Source City      : wai

Enter Destination City : goa
```

Enter Distance From wai And goa: 456

Do you want to add more cities.....(y/n) : y

Enter Source City   : goa

Enter Destination City : pali

Enter Distance From goa And pali: 1456

Do you want to add more cities.....(y/n) : n

Do you Want to Continue in Main Menu....(y/n) : y

***** Flight Main Menu *****
1. Create
2. Adjacency Matrix
3. Exit
.....Enter your choice : 2

Displaying Adjacency Matrix :

	pune	wai	goa	pali
pune	0	123	0	0
wai	0	0	456	0
goa	0	0	0	1456
pali	0	0	0	0

Do you Want to Continue in Main Menu....(y/n) : y

***** Flight Main Menu *****
1. Create
2. Adjacency Matrix
3. Exit
.....Enter your choice : 3

=== Code Execution Successful ===