

Programming Project 8 – Extra Credit

Due: Tuesday, 5/5/15 at 11:59 pm

This Extra Credit Assignment is worth 25 points.

Take Programming Project 7 and add one command to it. Only the addition is described below. Refer to Programming Project 7 for the rest of the description. You must submit the extra credit code as a separate submission from Project 7.

Where Can I Go From Here?

In this project we want to list all of the airports we can get to from a specified airport.

w <int> - display a message stating all of the airports to which one can travel from airport **<int>** in one or more flights. This code is to use the algorithm specified below to build a list of airport and then display that list.

To determine the list of airports to which one can travel from airport X in one or more flights, a recursive depth-first-search algorithm should be used.

```
void whereToHelper (int x)
{
    create a empty list, L, of airports
    whereTo (x, L);
    printf ("The airports that can be reached from airport %d are:\n", x);
    printList (L);
}

void whereTo (int a, list L)
{
    for (each airport b that can be reached from a in one flight)
    {
        if ( b is not a member of list L)
        {
            add b to list L;
            whereTo (b, L);
        }
    }
}
```

Program Submission

You are to submit the programs for this lab via the Assignments Page in [Blackboard](#).

To help the TA, name your file with your net-id and the assignment name, like:

- ptroy1Project8.java or ptroy1Project8.zip