Final project beginnings

1. Describe your final project in fewer than 25 words. The handout you were provided is quite wordy so you'll understand it much better if you can (correctly) summarize it. If you're not understanding part of it, that's your first opportunity to get a question answered.

Simulating a flight from an airport of the user’s choice, to an airport of user’s choice using a plane that the user selects.

1. For each of the following describe in fewer than 10 words how it will be satisfied by your program:
2. Arrays

Airplane speeds, max altitude, range, takeoff and landing runway lengths.

1. Strings

Used to collect airports and plane selections.

1. Programmer defined functions

Determine the distance between two airports, vector of plane and weather.

1. Data files reading

A list of airports and locations, runway lengths, headings.

1. Data files writing

Write data from flight. Time taken, aircraft path, heading. Weather.

1. Name and describe three tasks of your project that will be accomplished using programmer-defined functions. You may need more than three for your project, so pick three which will help you answer questions d. through g. (If you cannot identify three tasks for functions, your project needs revision!)
   1. Task 1:

Determine the distance between airports. Have the function use parameters of the airport code and have the function output the distance and heading required for a flight between the airports.

* 1. Task 2:

Create the weather and weather fronts and write them to a weather file.

* 1. Task 3:

Determine the rout needed to travel between the airports, if weather is in the way return true false.

* 1. Task 1, 2, and 3 will all need parameters. Task 1 will need the input of the airports to check the location file and determine the location of the inputted airports. Task 2 will need parameters to determine the limits of the weather, these will be important because the weather will be random and you don’t want the weather to be so strong that no plane can fly. Task 3 will need parameters of locations of the airports, and the location of the weather to determine if the route is viable.
  2. Task 1, 2, 3 will all have return values. Task 1 will return the distance between the airports. Task 2 will return the location and vectors of the wind and storm cells. Task 3 will return weather the path goes through a storm.