

Airline Delays

Your task is to create an application that would allow us to extract some interesting information from flight delays recorded at two major airports of NYC -- JFK and LGA. See attached the data file. Each row in the file corresponds to a delayed flight that was recorded in January 2015 for JFK and LGA. While this particular file is for January 2015, we would want to be able to use your program for different files as we get new data. Assume that the file contains at most 1000 records (there may be less records than that). The first column is always the 3 letter airport code of the originating airport and the space delimited second column is the departure delay encountered in minutes.

[50 points] Your program should read this file into arrays. Make sure that the file exist. If the program cannot find the file, it should display an error message telling the user that the data file could not be found.

Once the file is successfully read, your program should allow user to get the following information:

[50 points] Feature #1 Average Delay: Ask user to enter an airport code. Given the airport code, report the average delay in minutes encountered for the flights that originated from that airport. If user enters "ALL" (without quotation mark) as the airport code, you should report the average delay for all flights regardless of the originating airport.

[60 points] Feature #2 Maximum Delay: Report the maximum delay encountered on these flights along with the airport from which that flight originated. Make sure to report the delay in hours -- note that the delays are in minutes in the file, but we want to display the delay in hours for this feature only.

[60 points] Feature #3 Flight Count: Ask user to enter minimum delay in minutes and the airport code. Report the number of flights from that airport that encountered delays greater than or equal to the user specified minutes. If user enters "ALL" for airport, display any flights that is delayed more than the specified number of minutes regardless of the originating airport.

[30 points] Feature #0 Exit: Exit the program.

Make sure that your code is commented and indented properly (-50).

Make sure that each feature is in its own function (-60).

Airport Delay Report v1.0

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1- Average Delay

2- Maximum Delay

3- Flight Count

0- Exit

What do you want to do? 1

For which airport? JFK

Average Delay: 39.2539 minutes

Airport Delay Report v1.0

=====

1- Average Delay

2- Maximum Delay

3- Flight Count

0- Exit

What do you want to do? 1

For which airport? LGA

Average Delay: 41.3745 minutes

Airport Delay Report v1.0

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1- Average Delay

2- Maximum Delay

3- Flight Count

0- Exit

What do you want to do? 1

For which airport? ALL

Average Delay: 40.4214 minutes

Airport Delay Report v1.0

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1- Average Delay

2- Maximum Delay

3- Flight Count

0- Exit

What do you want to do? 2

Maximum Delay: 8.85 hours

At Airport: LGA

Airport Delay Report v1.0

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1- Average Delay

2- Maximum Delay

3- Flight Count

0- Exit

What do you want to do? 3

For which airport? ALL

Minimum Delay? 120

There are 72 flights that matched the criteria.

Airport Delay Report v1.0

=====

1- Average Delay

2- Maximum Delay

3- Flight Count

0- Exit

What do you want to do? 3

For which airport? JFK

Minimum Delay? 120

There are 33 flights that matched the criteria.