Term Project Phase III: Finding Natural Breaks (Due 11:30 AM Tuesday December 20, 2016)

In phase I, you calculated the natural breaks for n = 2 (two groups). In phase II, you calculated the natural breaks for n = 5 and n = 7 using the dataset data30.py (http://www.cs.umb.edu/~ding/classes/187/homework/data30.py).

In Phase III,   you should allow your natural break program to take two external parameters: (1) the number of natural breaks to be calculated, and (2) the external data file name.

The program will read two parameters and calculate the required natural break groups using the data provided by the data file.

Work on this with each of your team members, and remember the following guidelines for submitting your work:

Make sure to submit
1.   The main code file
2.   Any modules/txt files that you used as input
3.   Any instructions on how to run the code so that the proper result can be viewed

Basically, whatever is needed to see and run the results, you must include!

One submission per team from the Team Lead. Please submit the source code of your program and results of your program.

The example below explains the required output in Phase II. Output should have the following headings GreaterThanEqual, LessThan, PercentOfObservations, CountOfObservations.

To clarify, "% of observations in range" is calculated as (#number of items in a natural break group / total #number of items). "Count of observations in range" is calculated as # number of items in a natural break group.

DSC Range		Observations	
>=	<	% of observations in range	Count of observations in range
0.3303	1.0849	27%	107
1.0849	1.4691	17%	69
1.2583	1.4691	19%	78
1.4691	1.8286	16%	66

1.8286	9.7251	20%	29
9.7251	45.112	16%	5
45.112	60.7416	1%	2

Base Points: 100 points
Bonus Points: 100 Points
200 Points: If a team can complete the assignment on time
120 Points: If a team can finish the core calculations of the assignment on time