Computer Science I

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HW9A 10 pts **Due Monday, November 18, 11:59 PM**

A file named **restaurants.HW9.txt** will be posted on Canvas under Modules. Copy the file into your .py folder (the same folder where your Python programs are stored). The file contains information on restaurants in the greater Boston area. The information on each restaurant is **name, city, cuisine, dollar, and, rating.** The file posted on Canvas is shown without line feeds and but listed below line by line.

Sandrines , Cambridge , French , $$$, 3.5
Piperi Mediterranean Grill , Boston, Mediterranean , $, 5.0
Neptune Oyster , Boston, Seafood , $$$, 4.5
Lukes Lobster , North End , Seafood , $$, 3.5
O Ya, Boston, Japanese , $$$$, 4.0
Casa Razdora , Boston,Italian , $, 4.5
The Salty Pig , Boston, American , $$, 3.0
Mike and Pattys, Boston, Sandwiches, $, 4.5
Punjabi Dhaba, Boston, Indian, $$, 4.0
Mehak, Boston, Indian, $$, 4.0
The Daily Catch, North End, Seafood, $$, 4.0
Four Winds Bar and Grill, North End, American, $$, 4.0
Bily Tse Restaurant, North End, Japanese, $$, 3.5
Koy, Boston, Korean, $$, 4.0
Meritage Restaurant, North End, American, $$$$, 4.0
No 9 Park, North End, French, $$$$, 4.0
Zo, Boston, Mediterranean , $, 4.5

You can consider the file to be one long string. Your first objective is to get it into a two dimensional list format. Once that is done, extract and print the following information with appropriate identifying text.

a) the cuisine with the highest average rating and the rating
b) the cuisine with the lowest average rating and the rating
c) the restaurant with the highest rating and the rating
d) the most expensive restaurant(s) with the dollar rating
e) the restaurant in Boston with the lowest rating

NOTE → Starter code will be supplied. See Modules.

HW9B 6 pts

Write both iterative (2 pts) and recursive (4 pts) versions of a function called **shortestLongest** that returns both the shortest and longest strings in a list of strings. Assume no two strings will have the same length.

If the list was ["aaaa","a","aaa", "aaaaaaaaaaaa","aaaaaaaa","aa"], the function would return:

("a", "aaaaaaaaaaaa")