Project 2: Linear Regression

Due: Before 11:59 pm on Sept 7, 2021

Project 2 is to implement the basic linear regression algorithm as described in lectures in Section 2. Your algorithm should assume that an input file has an m (lines of data) and a n (number of features) onthe first line of the file. Each line after that contains n features and the value associated with those features. For example, an input file for the house data might be:

15	3		
2	3	1060	119,000
4	2	1195	125,000
4	2	1199	125,000
1	1	925	131,000
3	2	1014	175,000
3	3	1197	175,000
3	2	1008	187,400
3	1	1352	194,000
3	2	1773	200,000
4	3	1625	225,000
4	4	1827	228,000
3	4	1325	235,000
3	3	2120	250,000
4	3	2700	274,500
5	4	2659	319,900

Your program should prompt the user for a training file. Using the training file, it should compute and print out to the screen the computed weights and the J value. Next, your program should ask the user for a test file. Using the weights computed from the training file, it should then print out J for the test file. All output should be clearly labelled.

Your Python program should be named yourlastname_yourfirstname_P2.py, then zipped and uploaded to Canvas.