DS 413/613

Python Lab

Instructions: Open a python shell through R Studio, and provide code for the following problems/questions.

import numpy as np

1) Use and show python code to arrange the elements of the array in ascending order (from left to right)

vector1 = np.array([6,3,10,8,5,2,14])

vector1

2) Use and show python code that will extract all elements of the array given below that are less than 6.

vector1 = np.array([6,3,10,8,5,2,14])

vector1

3) Use and show python code that will find the median for the elements in the array below.

vector1 = np.array([6,3,10,8,5,2,14])

vector1

import pandas as pd

4) Use and show python code that will read in the excel sheet estate data; that is posted on blackboard. Assign the data the variable **estate**.

5) Use and show python code that will show all 12 variables of the estate data table.

6) Use and show python code that will select the variables Price, Garage, and Style from the estate data table.

7) Use and show python code that will show rows 122, 123, and 124 of the estate data table

8) Use and show python code that will show home prices that are greater than 400000, with areas that are greater than 3000 and that have four bedrooms

9) Use and show python code that will create a modified estate dattable that has a new variable **PAratio** and the table only shows the variables **Price**, **Area**, and **PAratio. PAratio** is defined as the Price divided by the Area.

10) Grouping by the variable **Style**, use and show python code that will show maximum counts and minimum counts for bedrooms and bathrooms.

import matplotlib.pyplot as plt

import seaborn as sns

11) Use and show Python code to create the scatter plot shown below

from, the estate data set.

