Summary

Intermediate Python for Data Science

K15-2897

Abdul Muneem Khan

Chapter: 1 Matplotlib

In this chapter we have learn about Visualization, data structures, control structures, case studies.

We begin with import matplotlib.pyplot as plt and simply plt data of two arrays using syntax plt.plot(arrayX, arrayY). X correspond with horizontal axis and Y with vertical axis.

Major reason to use Histogram explore dataset and get idea about distribution. We can plt using hist with two parameters first one is array Values and bins define in how much columns you can break your data, and another example is population pyramid. Final topic of this chapter is customized data visualization by plotting different types and by moderate data story as you want as you tell, like tell Axis label using syntax xLabel/yLabel or can give title using title or can define ticks like xTicks/yTicks.

Chapter: 2 Dictionary

In this chapter we have learnt about list, dict\_name is also discussed, object type dictionary to store key value pair, pandas library and its reading technique using csv file.

list(like consume array) and about why it is not convenient, we have seen how we can create own dictionary using syntax name = {key:value }, access dictionary using nameOfDictionary[‘Key’], and we have discuss why indexed by unique keys in dictionary and some major differences in dictionary. We have seen data manipulation whos syntax is nameOfDictionary[‘Key’]=nameValue. We can also delete dictionary using syntax del(nameOfDictionary[‘Key’]). In this chapter we have learn’t about dictionariception in which we create array of array using syntax nameOfDictionary[array1Size][array2Size]. We have learn tabular dataset example in which we have rows is observation and column is variable. In pandas we have got reasons why to use pandas library like it has high level data manipulation tool. We have dataframe dictionary, and we can import them using csv. We have learnt Dictionary to Dataframe using syntax pd.Dataframe(), another example is to convert csv to dataframe using syntax pd.read\_csv() or with index\_col=0. We have discussed brics division of data, and square brackets and loc functions are majorly discussed.

Square brackets has syntax name[[‘item’]], and loc has a syntax name.loc[‘item’] and name.iLoc[‘itemValueInNumber’]

Chapter 3 Logical, Control Flow and Filtering.

In this chapter we have learnt Numeric comparisons, boolean comparison and filtering Pandas

First we have seen usage of !=, ==, <=, >=, >,< and array comparison. In boolean comparison we have seen and, or and numpy. Numpy provide all of these using logical\_and(), logical\_or() and logical\_not(). We have if, elif and else. After have filtering pandas dataframe in which we have viewed column and row data in tabular form. I want to build up a boolean Series, that you can then use to subset the cars DataFrame to select certain observations as mentioned.

Chapter 4: Loops

In this chapter we have learnt while, for, numpy and numpy detail

First we have discussed about while and its looping style, then we discuss its travel like conditions if, else and elif. We can add more conditions like offsets using syntax offset != 0, after we have secondly we have about list travel using for loop. More we have discussed have looping data structure, loop using numpy array is also available and learn’t how to add column. This chapter is very similar like chapter 3

Chapter 5: Hacker Statistics

In starting we have to import numpy array, like np.random.rand, define np.random.seed(123) for seeding we can moderate its data using numpy library. In second step we have visited we have discussed random walk, and we have discussed -1 argument in array, and discussed about visualization with basic using .plot, and .show. Also discussed distribution using probability of winnings. In start of Distribution, we have discussed multiple Implement clumsiness and its usage of range. Another example is using plot distribution np.random.seed(123), in another we can find all odds in calculations.