Python

Jupyter

Commad mode

**Escape mode esc:**

Dd to delete cell

Hide the field browser section:

1. Command + B = Mac

2. Ctrl + B = Windows

Hide the field browser section:

1. Create cell above: A

2. Create cell below: B

To delete cell: dd

To convert it into a markdown cell: m

Go up or down to any cell use arrow key

**Editing mode “enter”:** Markdown, Code, Raw

Shift enter: runs code

m-markdown

y-code

**LIST**

len(x) how many items in x

append(‘x’) – addes x at the end of list

* If ran multiple time it will a more x. to fix go to original list and run it, and rerun append list.

Numpy

-Package for scientific computing

Value and their indexs

Array

1 dimension – vector (1 list)

2dimension- Matrix (stacked list)

3 dimension- 3rd order tensor

Pandas- used for data manipulation and analysis. Most used for DA.

* Can work with multiple types of data files, csv, exel html etc

DataFrame: all data

Series: specific rows and columns

Codes:

import pandas as pd

import data set:

df = pd.read\_csv('./data/titanic.csv')

df.shape

df.columns

df.head() ##head shows first five rows

df.tail() ##gives you bottom x rows

df.sample(5)

df.dtypes ##way to see data type

df.info() ##showes detailed info like number of values

df.describe() ## for int and floats columns: gives you basic analysis like mean, min, max, count, quart etc.

df.describe(include='all') ## gives you object data with number data

**Indexing, Selecting and Assigning**

df.Age[1] ## df.x ##specific column and index

**Indexing operators: df.iloc =index location and df.loc = location**

df.iloc[0] ## index location. Gives you all the info for the first column

df.iloc[:, 0] ##row,coloumn.

df.iloc[:3, 7] ##row,coloumn. 0 to 3 rows and only column 7

df.iloc[1:3, 3] ##1 to 3 rows and column 3

df.iloc[[0, 1, 2], 5]

**Label-based selection**

df.loc[0, 'Age']

df.loc[:, ['Name', 'Sex', 'Age']]

**Conditional Selection**

df.Sex == 'male'

df[df.Sex == 'female'] ## MASKING

**And =&**

df[(df.Sex == 'male') & (df.Age >= 40)]

**Or = |**

df[(df.Sex == 'male') | (df.Age >= 40)]