Input[1]:

# importing pandas module

import pandas as pd

# load the dataset

data = pd.read\_csv('crop.csv')

# display top 5 values

data.head()

Input[2]:

# data description

data.info()

Input[3]:

# 2011 crop data in histogram analysis

data['2011'].hist()

Input[4]:

# 2012 crop data in histogram analysis

data['2012'].hist()

Input[4]:

# 2013 crop data in histogram analysis

data['2013'].hist()

Input[5]:

# display all year data

data.hist()

Input[6]:

# import seaborn module

import seaborn as sns

# setting style

sns.set\_style("whitegrid")

# plotting data using boxplot for 2013 – 2014

sns.boxplot(x='2013', y='2014', data=data)

Input[7]:

# scatter plot 2013 data vs 2014 data

plt.scatter(data['2013'],data['2014'])

plt.show()

Input[8]:

# line plot 2013 data vs 2014 data

plt.plot(data['2013'],data['2014'])

plt.show()

Input[9]:

# import required modules

import matplotlib.pyplot as plt

from scipy import stats

# assign data

x = data['2017']

y = data['2018']

# linear regression 2017 data vs 2018 data

slope, intercept, r, p, std\_err = stats.linregress(x, y)

# function to return slope

def myfunc(x):

return slope \* x + intercept

mymodel = list(map(myfunc, x))

# scatter

plt.scatter(x, y)

# plotting the data

plt.plot(x, mymodel)

# display the figure

plt.show()

# import required modules

import matplotlib.pyplot as plt

from scipy import stats

# assign data

x = data['2016']

y = data['2017']

# linear regression 2017 data vs 2018 data

slope, intercept, r, p, std\_err = stats.linregress(x, y)

# function to return slope

def myfunc(x):

return slope \* x + intercept

mymodel = list(map(myfunc, x))

# scatter

plt.scatter(x, y)

# plotting the data

plt.plot(x, mymodel)

# display the figure

plt.show()

Input[10]:

# import required modules

import matplotlib.pyplot as plt

from scipy import stats

# assign data

x = data['2016']

y = data['2017']

# linear regression 2017 data vs 2018 data

slope, intercept, r, p, std\_err = stats.linregress(x, y)

# function to return slope

def myfunc(x):

return slope \* x + intercept

mymodel = list(map(myfunc, x))

# scatter

plt.scatter(x, y)

# plotting the data

plt.plot(x, mymodel)

# display the figure

plt.show()