Explanation of code

#function head, passing dataset,getting startrange,endrange values from user

def get\_pdf\_probability(dataset,startrange,endrange):

#importing pyplot from matplotlib

from matplotlib import pyplot

#importing norm from scipy.stats library

from scipy.stats import norm

#importing seaborn getting that in variable called sns

import seaborn as sns

#distplot helps to visualizing the distribution of data(histogram)

#passing dataset,kde(kernal density estimate) provide the smooth curve over histogram,

#kde\_kws={'color':'blue'} represents that curve should be in blue color

#color='Green' represents histogram color

ax = sns.distplot(dataset,kde=True,kde\_kws={'color':'blue'},color='Green')

#drawing vertical with respect to startrange and endrange, and the color(Red) of the vertical line.

pyplot.axvline(startrange,color='Red')

pyplot.axvline(endrange,color='Red')

#getting dataset in variable name called sample

sample=dataset

#calculating sample mean and sample stanard deviation and printing those values.

sample\_mean=sample.mean()

sample\_std=sample.std()

print("Mean = %.3f,Standard Deviation = %.3f" %(sample\_mean,sample\_std))

#calling norm that we imported from scipy.stats

#passing the values (calculated sample mean and sample stanard deviation) into it and get it saved in dist vale

dist=norm(sample\_mean,sample\_std)

#This is oneline for loop helps to minimize the code

#values were got from the customer are appened in values within array.

values=[value for value in range(startrange,endrange)]

#The number comes in value variable got passed dist.pdf function to find the probability density fucntion and storing into the array called probabilites.

probabilities = [dist.pdf(value) for value in values]

#adding the probabilies for values from startrange to endrange

prob=sum(probabilities)

#printing the required output and returning probe value,since it is function.

print("The area between the range({},{}):{}".format(startrange,endrange,prob))

return prob