Normal Distribution code Explain

def get\_pdf\_probability(dataset,startrange,endrange): -> setting a function name

from matplotlib import pyplot -> importing libraries

from scipy.stats import norm -> importing libraries

import seaborn as sns -> importing seaborn

ax = sns.distplot(dataset,kde=True,kde\_kws={'color':'blue'},color='Green') -> if we give kernel density function is true histogram will work and the kde color should be blue and histogram in green

pyplot.axvline(startrange,color='Red') -> vline is vertical line start range and end range in red

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

#generate a sample

sample= dataset -> generating a sample

#calculate parameters

sample\_mean = sample.mean() -> calculating mean and std using formulas and predefined function

sample\_std = sample.std()

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

#define the distribution

dist = norm(sample\_mean,sample\_std) -> using norm predefined func calculating normal distribution and giving mean and std as input dist will perform normal distribution

#sample probabilities for a range of outcomes

values = [value for value in range(startrange,endrange)] -> getting all values in one and doing by submation using inliner using for loop. Withing one line for loop values will be calculated within a range ex 40 to 50 all the values can be listed from 41,42…49

probabilities = [dist.pdf(value)for value in values] -> all the range values will be in (value) using predefined function pdf.

prob=sum(probabilities) -> here taking the submation to view the whole probability

print("The area between range({},{}):{}".format(startrange,endrange,sum(probabilities))) ->printing the values

return prob -> returning function