Q1: Generate 1000 random integers between (1,10). Print the frequency in dictionary as {number:frequency} of all numbers i.e. 1 to 10 while selecting the seed as

(1) when seed value is 100

(2) when seed value is 500

(3) when seed value is 1000

**Use the following code for seed values:**

**import numpy as np**

**N**= **input()**

**np.random.seed(N)**

Ans:

(1) {9: 100, 4: 123, 8: 111, 1: 110, 5: 116, 3: 114, 6: 107, 2: 106, 7: 113}

(2) {8: 88, 2: 125, 9: 116, 6: 109, 3: 112, 4: 106, 7: 111, 1: 116, 5: 117}

(3) {4: 122, 8: 103, 1: 122, 2: 114, 9: 113, 5: 120, 3: 110, 6: 86, 7: 110}

**Next week: Plot the frequencies as bar plots.**

Q2: Create a function that computes the probability of some number K in a data array

(1) if array is {3, 4,4,5,7,3,8,3,2,9} then compute the probability of 4, 6, and 3.

(2) if array is {5, 3,1,5,5,3,8,3,5,9,2,4,7} then compute the probability of 5, 7, and 1.

Ans:

(1)0.2, 0, and 0.3

(2)0.31, 0.08, and 0.08

Q3: Create a function that computes the probability of some number K in a data array

(1) if array is {5, 3,1,5,5,3,8,3,5,9,2,4,7} then compute the probability of 5, 7, and 1.

Q4: In a list mol = ["My","First","Probability","Program"], Randomly sample 999 words and print the frequency of each word in dictionary form as:{'My': frequency,'First':frequency,'Probability':frequency,'Program':frequency} when

Use the following code to specify seed value:

**import random**

**random.seed(n)**

(1) Seed is 90

(2) Seed is 150

Ans:

(1){'My': 247, 'First': 227, 'Probability': 273, 'Program': 252 }

(2) {'My': 248, 'First': 239, 'Probability': 237, 'Program': 275 }

**Next week: Plot the frequencies of each word as bar plots.**