**Assignment Questions:**

Q1: From the following list = ["My","First","Probability","Program"], Randomly sample 1000 words. For every word, collect the neighbour word “My”, call it as a sample space for the word say “My”. If you do this for all words, you will get four different sample spaces. Now compute the probability of all words in the sample space.

**Test Cases:**

**When seed value is 150:**

Probability of 'My' is: 0.23387096774193547

Probability of 'First' is: 0.20502092050209206

Probability of 'Probability' is: 0.1864406779661017

Probability of 'Program' is: 0.2737226277372263

**When seed value is 110:**

Probability of 'My' is: 0.27547169811320754

Probability of 'First' is: 0.2641509433962264

Probability of 'Probability' is: 0.18274111675126903

Probability of 'Program' is: 0.3074074074074074

Use the following code for seed values:

import random

random.seed(N)

Q2. For the following dataset, print a sentence probabilistically.

I love the world and the things in it.

I love the way cheetah runs.

I am a man of honor.

I will be a rich guy.

I am a teenager so I am a rebel.

I am an iconoclast and a fighter

I believe in education.

I love everything.

I watch a movie every day.

I hate pollution.

I love the work of god.

I love the beauty of this world.

I adore the way people try solve hard things.

I am nothing but a blade of grass.

I will unleash a lot of prophecies and will bring down hordes of legions unto this earth to destroy you.

I love doing things in a peculiar way.

I love and hate probability. It is so stupid and fun at the same time.

I love the way software programs work.

I love my room.

Test cases:

The system should take as input the number of words and the starting word. The system should print a sentence on its own.

For instance:

Input ={3,love}

Output={love the way}