Assignment 3

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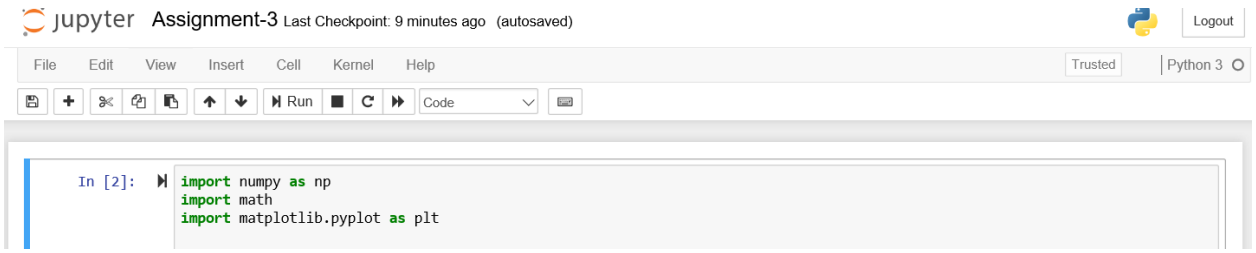
Software: Jupyter Notebook 5.7.4 - Python 3.7.1 (default, Dec 10 2018, 22:54:23) [MSC v.1915 64 bit (AMD64)]

Source code file – Assignment-3.py

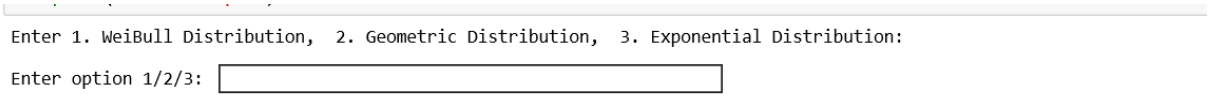
Requirements:

- **Python libraries required: numpy, math, mathplotlib (for plotting the graph)**



Open Python IDE terminal and run – ***pip install matplotlib***

Implementation Distribution:

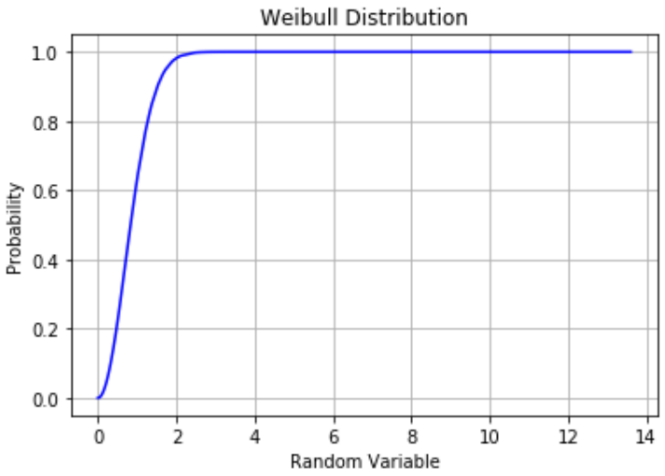


- **WeiBull Distribution**
- **Geometric Distribution**
- **Exponential Distribution**

1. **WeiBull Distribution:**

   Sample inputs: Alpha = 1 & Beta = 2

```
Enter 1. WeiBull Distribution,  2. Geometric Distribution,  3. Exponential Distribution:
Enter option 1/2/3: 1
Enter Alpha value: 1
Enter Beta value: 2
```



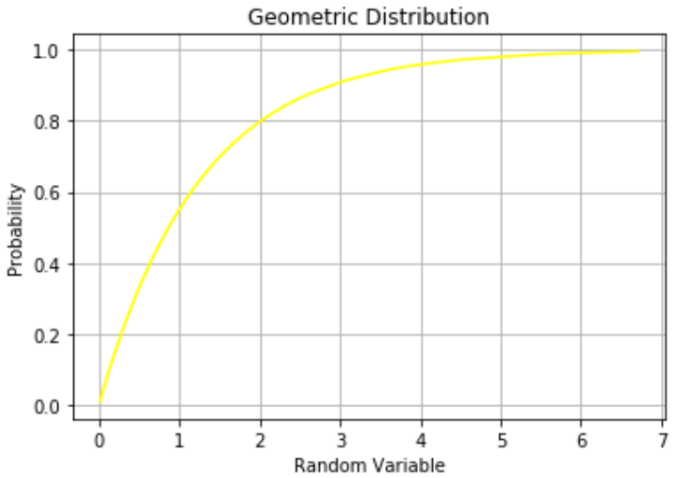
Output file generated: **weiBull_RandomSeq.txt, weiBull_CdfSeq.txt, weiBullPlot.pdf**

2. **Geometric Distribution:**

   Sample input of q = 0.45 (q should be less than 1)

Output file generated: **geo_RandomSeq.txt, geo_CdfSeq.txt, geoPlot.pdf**

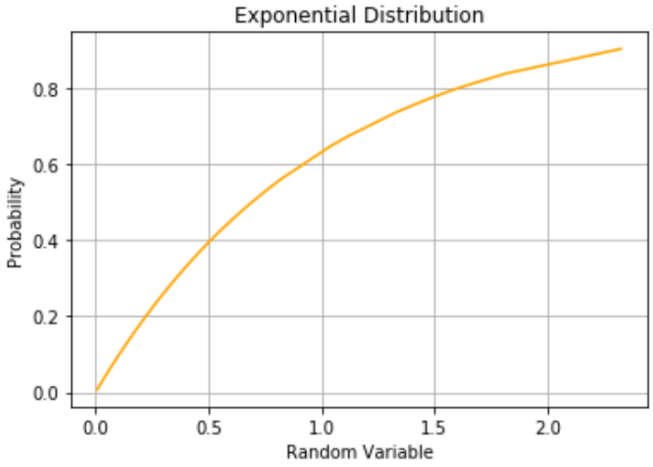
```
Enter 1. WeiBull Distribution,  2. Geometric Distribution,  3. Exponential Distribution:
Enter option 1/2/3: 2
Enter q value: 0.45
```



3. **Exponential Distribution:**

Sample Input of Lambda = 2

```
Enter 1. WeiBull Distribution,  2. Geometric Distribution,  3. Exponential Distribution:
Enter option 1/2/3: 3
Enter Value for Lambda:2
```



Output file generated: **exp_RandomSeq.txt, exp_CdfSeq.txt, expPlot.pdf**