

## Components :

### Python Files

1. bandit.py – It contains all code for N armed Bandit Problem
2. graphplt.py – It plots the graph
3. Expoprob.py – It is for Exponential Probability Distribution for Question 1
4. Gamma.py – It is for Gamma Probability Distribution for Question 1
5. NormalProb.py – It is for Normal Probability Distribution for Question 1
6. Uniformprob.py – It is for Uniform Probability Distribution for Question 1
7. NormalProbF2.py – It is for Normal Probability Distribution for Question 2
8. GammaF2.py – It is for Gamma Probability Distribution for Question 2
9. ExpoprobF2.py – It is for Exponential Probability Distribution for Question 2
10. UniformprobF2.py – It is for Uniform Probability Distribution for Question 2

### PDF Files

1. TheoryAnswers.pdf  
It contains Answers to Question 1 a,b,c and 2 a
2. GraphRepresentation.pdf  
It contains all the graphs generated from below mentioned Python Files
3. GraphDiscussions.pdf  
It contains all the graph discussions for Question 1 e and 2 b

### Run Code for Question 1:

For each probability distribution there is one python file to run N-Armed Bandit problem

- i. Uniform Probability Distribution : python Uniformprob.py
- ii. Exponential Probability Distribution : python Expoprob.py
- iii. Gamma Probability Distribution : python Gamma.py
- iv. Normal Probability Distribution : python NormalProb.py

### Run Code for Question 2:

For each probability distribution there is one python file to run N-Armed Bandit problem

- i. Uniform Probability Distribution : python UniformprobF2.py
- ii. Exponential Probability Distribution : python ExpoprobF2.py
- iii. Gamma Probability Distribution : python GammaF2.py
- iv. Normal Probability Distribution : python NormalProbF2.py