

## Components :

### Python Files(Folder CodeTask)

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`