Graph Discussions(Divya Saxena 1001773376)

1.e

By choosing different probablity distribution like Normal,Uniform, Exponantial and Gamma, we can see the difference both in Average Reward vs Iterations and Utility vs Iterations in N- Armed bandit Problem:

For Uniform Probability Distribution:
In this, during exploration, first it gets more reward(or utility) as compared to later then after that the graph becomes constant
For Normal Probability Distribution:
In this, during exploration, first it gets more reward(or utility) than lesser and then the graph becomes constant
For Gamma Probability Distribution:
It initially gets higher reward(or utility) but with increasing iterations the reward(or utility) slowly start decreasing and becomes constant. The average reward(or utility) it gets is maximum for this probability distribution.
For Exponential Probability Distribution:
In this, during exploration, first it gets more reward(or utility) as compared to later then after that the graph becomes constant

2.b

By choosing different probablity distribution like Normal,Uniform, Exponantial and Gamma, we can see the difference both in Average Reward vs Iterations and Utility vs Iterations in N- Armed bandit Problem:

Firstly by assuming that the perceived "penalty" of waiting instead behaves quadratic in terms of the wait time, the reward it gets also changed like somwhere it also got quadratic. For an instance, we have taken power of 2 so new time will be like 7^2, reward also gets impacted. We can easily see in our graphs the magnitude of reward (or utility) has also changed drastically.

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