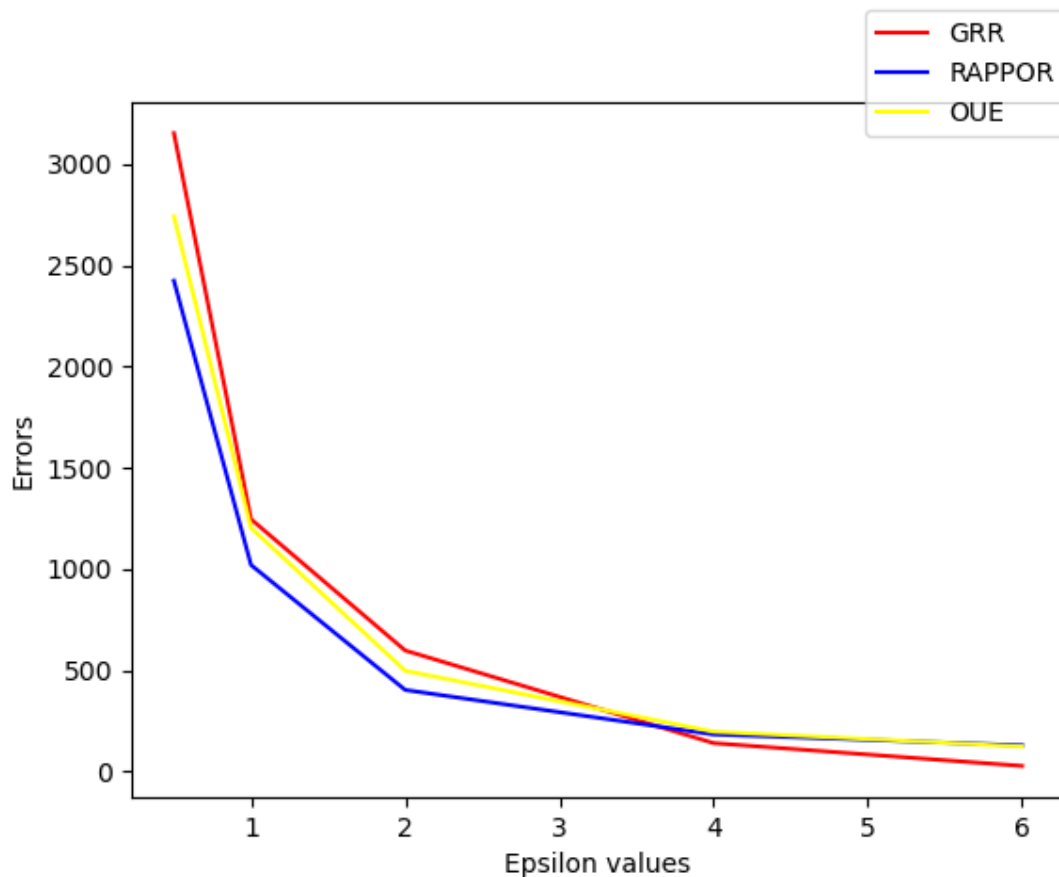


## Part 3 LDP Implementation



This graph shows the Average Error of LDP protocols that I have implemented. For low epsilon values RAPPOR's performance was the best among them. But when we increase the epsilon, GRR gets the least error from this analysis. I thought OUE and RAPPOR would be given a much different error than the GRR because their algorithms were way more advanced than the GRR. But they didn't give much difference in this Average Error Graph. It's also dependent on the domain size. If we change the domain size of this protocols, we would have gotten a lot more different error. There is no protocol that gave the best performance in every epsilon values. This observation gives an answer for us to this question: Is there a protocol that is always better? Unfortunately, no. We need to choose the LDP protocol for our scenario. Some scenarios GRR is the best some scenario it's not.