**Determining Queueing System Behaviour with Simulations**

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Abstract:

In this project we would be designing a simulation program to determine and recognize how different queueing systems work. We would be concerned with the basic types of queueing disciplines viz. FIFO, LIFO and Random, and try to ascertain how the entire system behaves1 with respect to these disciplines. The arrival rate and service rate would be taken as parameters from the user. We might impose further constraints such as limiting the size of the queue, or having multiple queues with a single server, or having a single queue with multiple servers.

1: We would like to compute: -

* Average Waiting time
* Server Idle time
* Utilization rate
* Length of queue
* Variations