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## Research Proposal

Topic: Probability and Queuing Theory

The study of queues deals with quantifying the phenomenon of waiting in lines using representative measures of performance such as average queue length, average waiting time in queue and average facility utilisation.

In Queuing Theory there are two models one is Markovian Queues another one is Non-Markovian Queues.

A Queuing Model in which the arrivals follows Poisson (Markovian) and service follows Exponential (Markovian) then it is called a Markovian Model, it has the special types  $(M/M/1):(\infty/FIFO)$ ,  $(M/M/c):(\infty/FIFO)$ ,  $(M/M/1):(K/FIFO)$  and  $(M/M/c):(K/FIFO)$ .

A Queuing Model in which the arrival follows Poisson (Markovian) and service follows General distribution (Non-Markovian) then it is called Non-Markovian Model, it has the special types  $(M/G/1)$ ,  $(M/D/1)$ , and  $(M/E_k/1)$ .

In this study, I do like my Research.