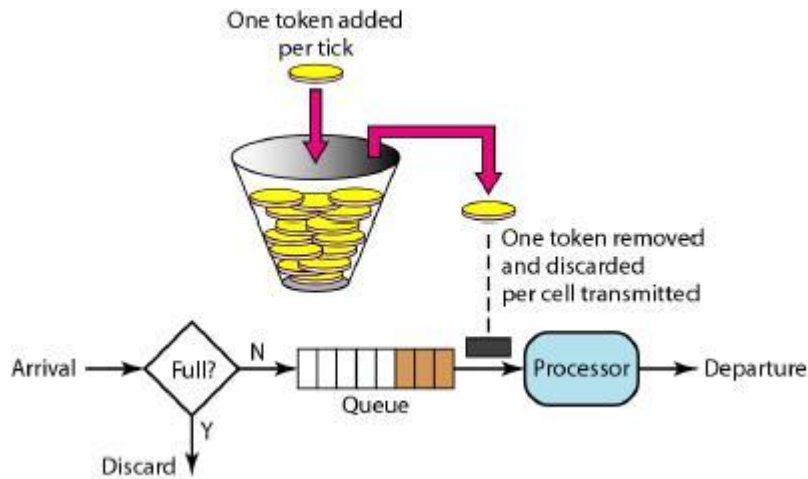


## Laboratory 03

The token bucket is an algorithm used in packet switched computer networks and telecommunications networks. It can be used to check that data transmissions, in the form of packets, conform to defined limits on bandwidth and burstiness (a measure of the unevenness or variations in the traffic flow).



Assignment:

- [i]. Implement the token bucket algorithm to control the number of packets admitted to the network.

- a. You may use an available implementation

Ex:

<https://github.com/bbeck/token-bucket>

<https://github.com/falconry/token-bucket>

- [ii]. Configure the following parameters.

- a. You wanted to rate limit the size response of a server to the client to 40 kb/sec.

- [iii]. After the implementation of token bucket algorithm, yet there is a possibility of congestions due to bottlenecks in the network. This is more evident with bursty traffic. Derive a mechanism to regulate bursty traffic in token bucket algorithm. (YOU MAY need to modify the algorithm)