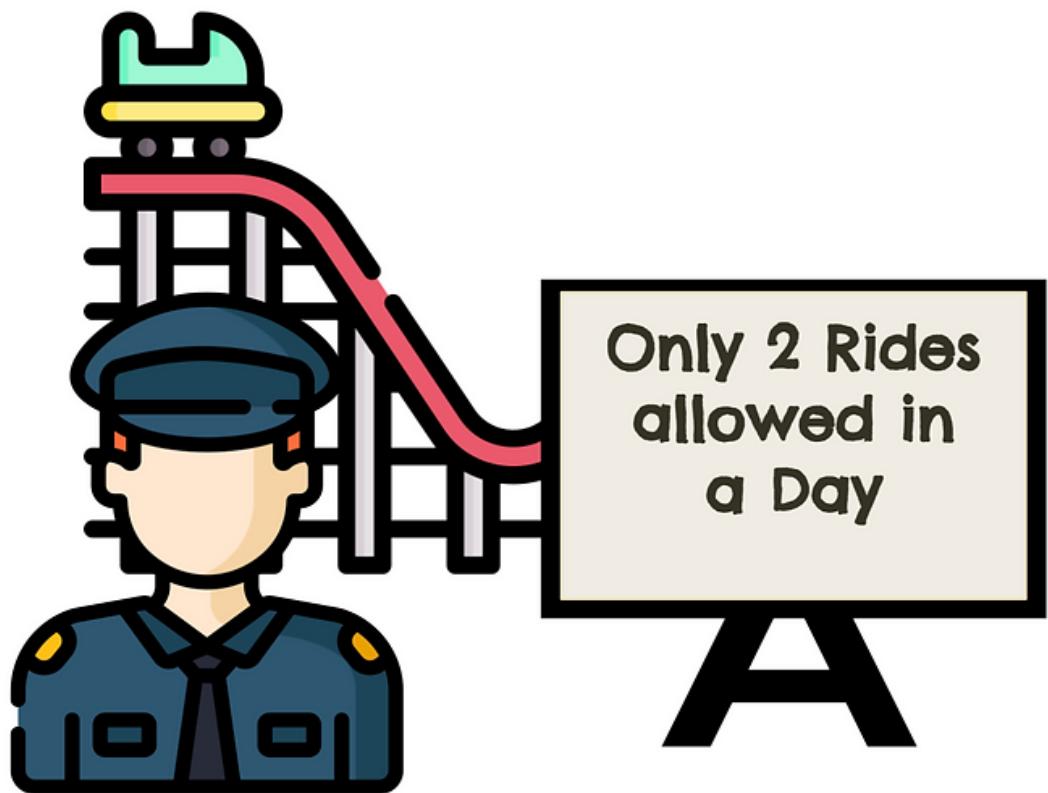


Analogy

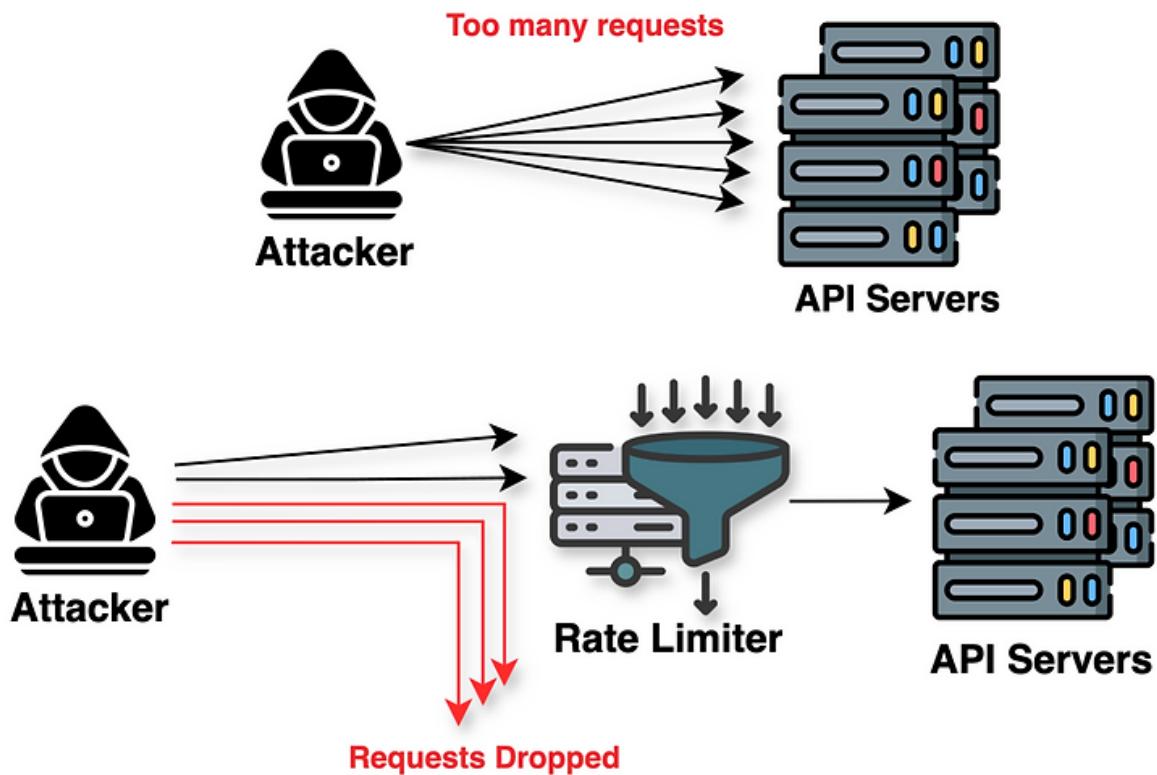


What is a Rate Limiter?

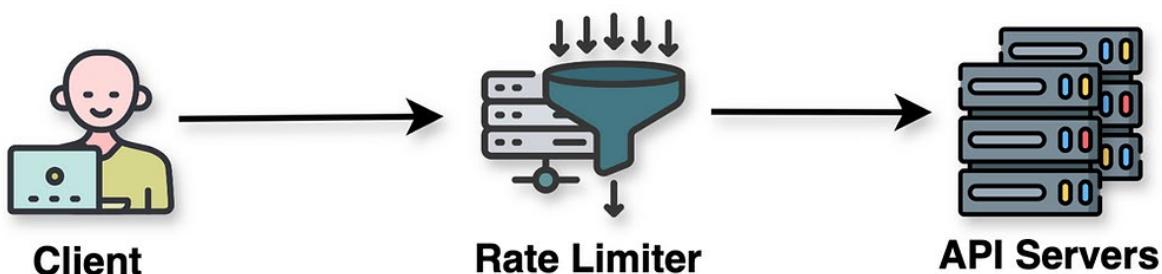


Rate Limiter

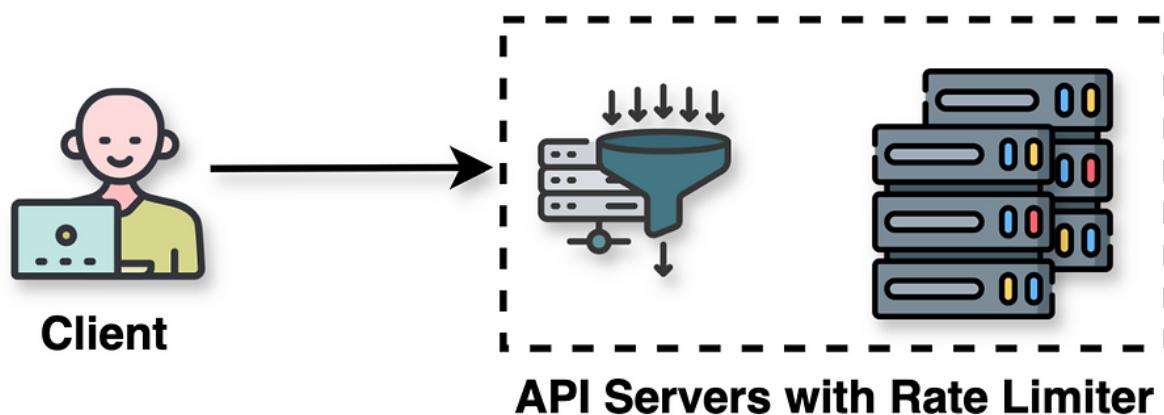
Why do we need a Rate Limiter?



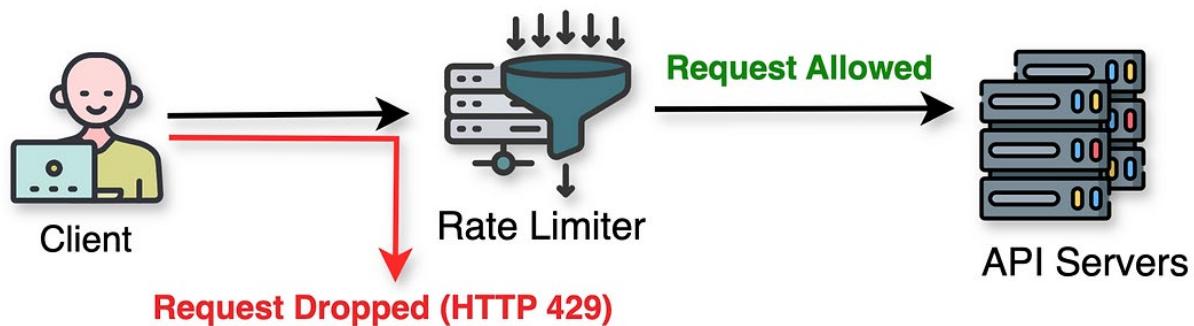
Rate Limiter comes before API Servers



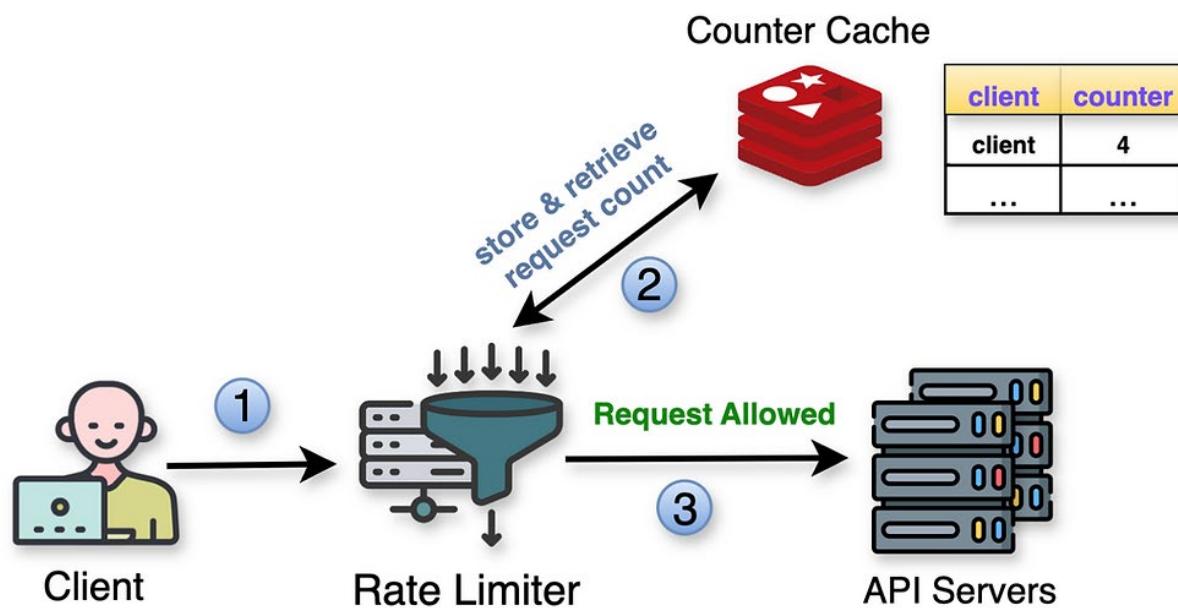
Rate Limiter comes with API Servers



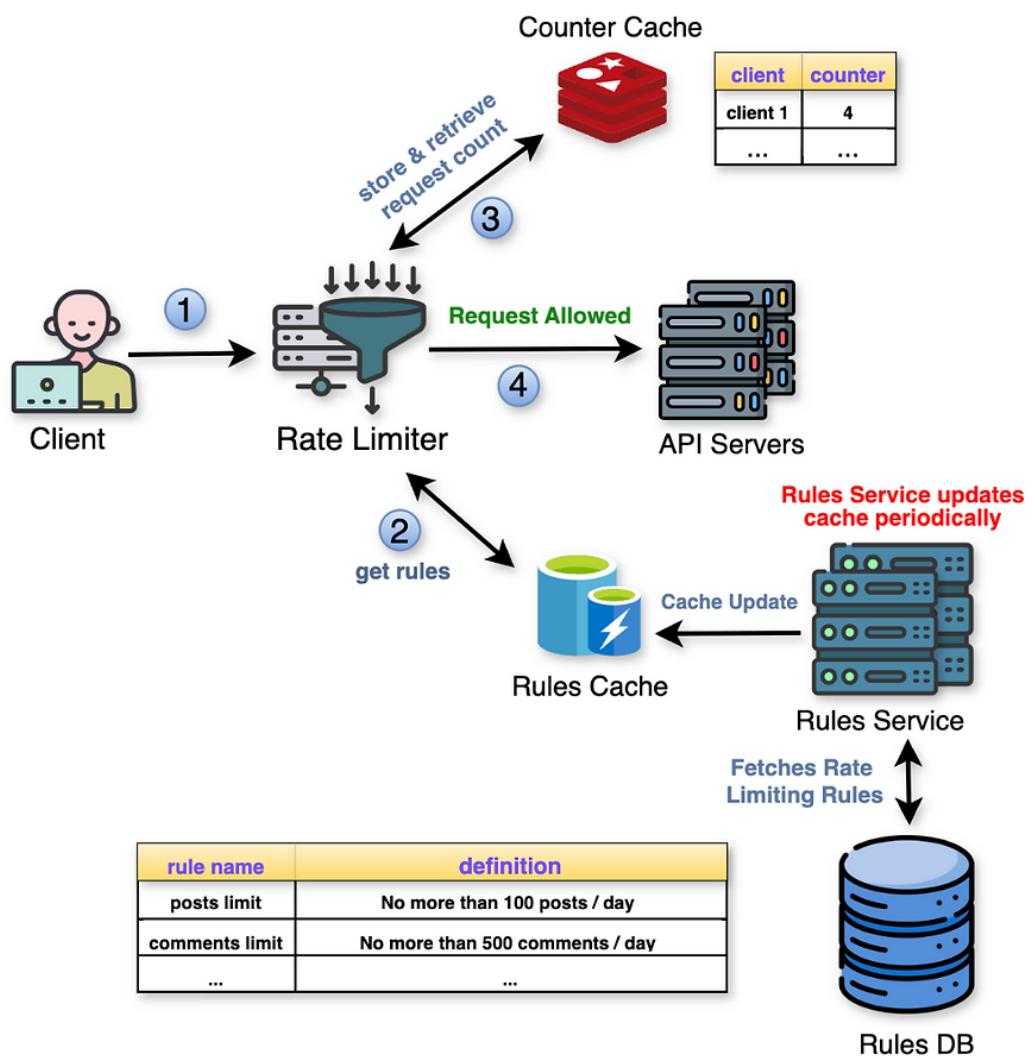
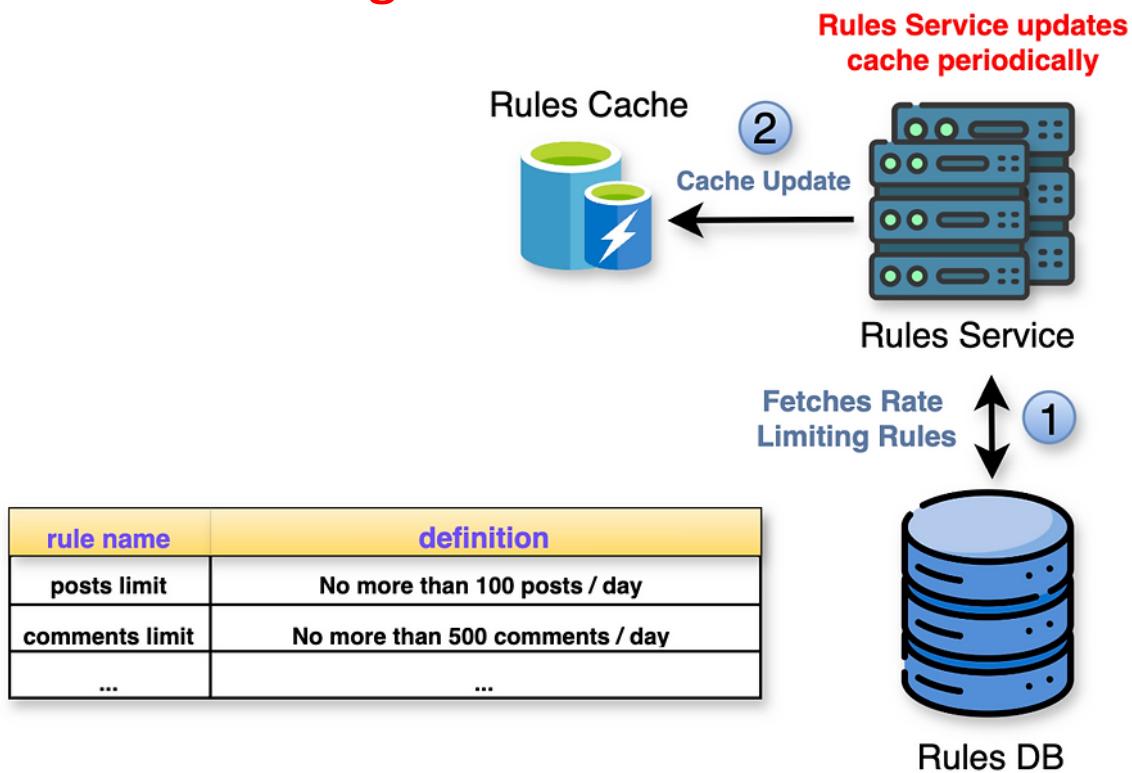
Basic High-Level Flow



Storing Request Counters

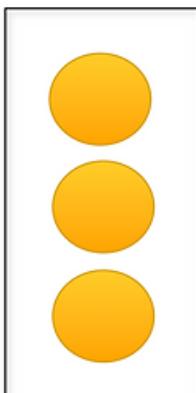


Storing Rate Limiter Rules



Token Bucket Algorithm

Bucket Refiller

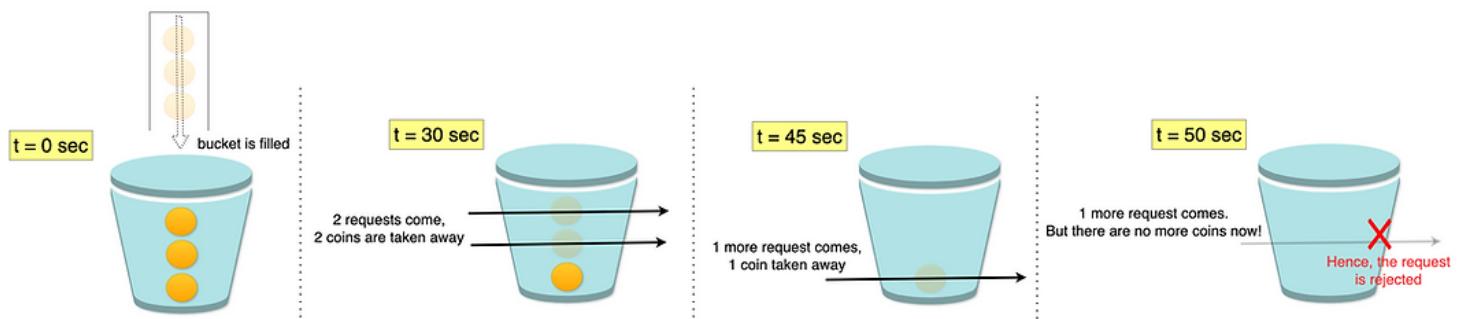


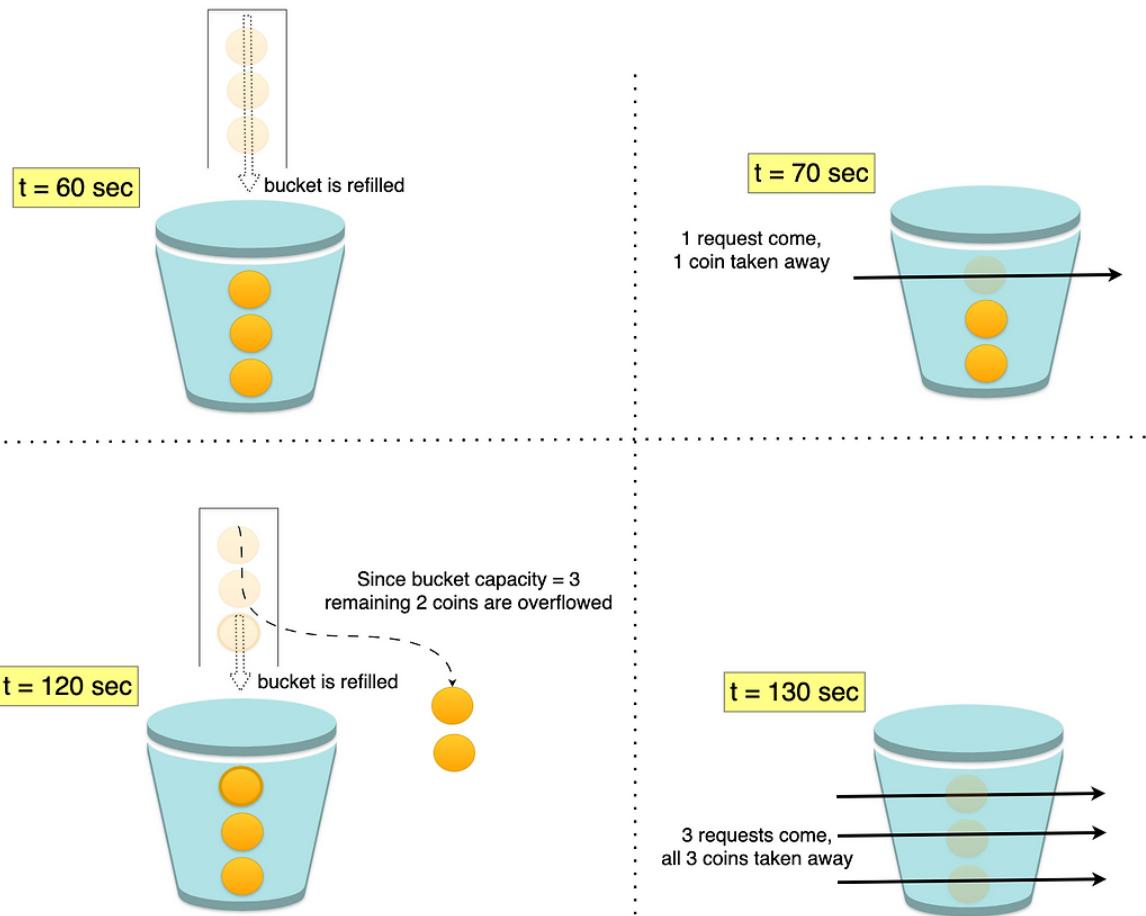
Bucket Refiller's job is to refill the bucket every 60 sec.



Bucket Capacity = 3

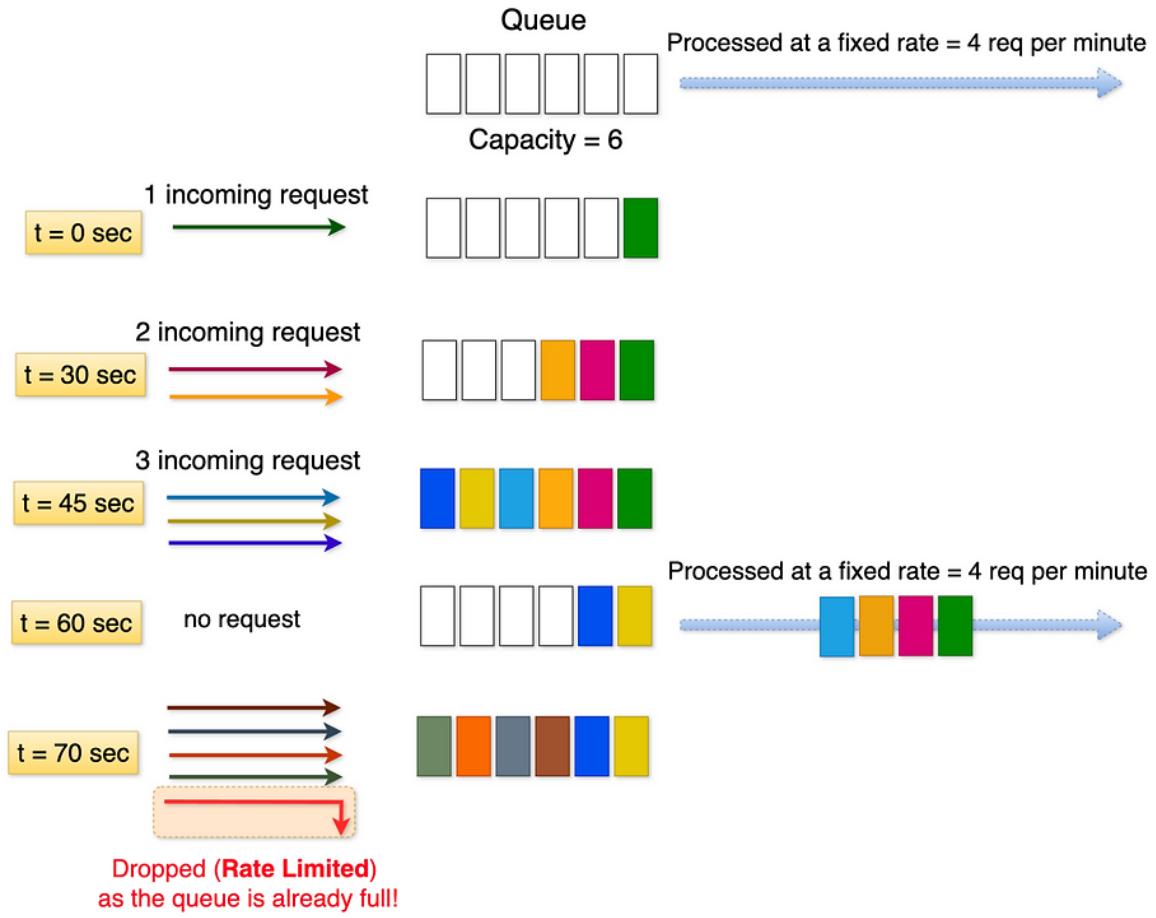
Bucket





Leaky Bucket Algorithm



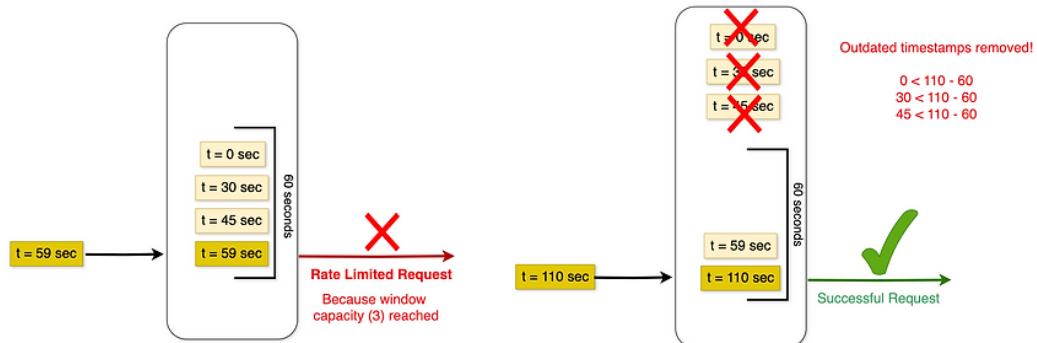
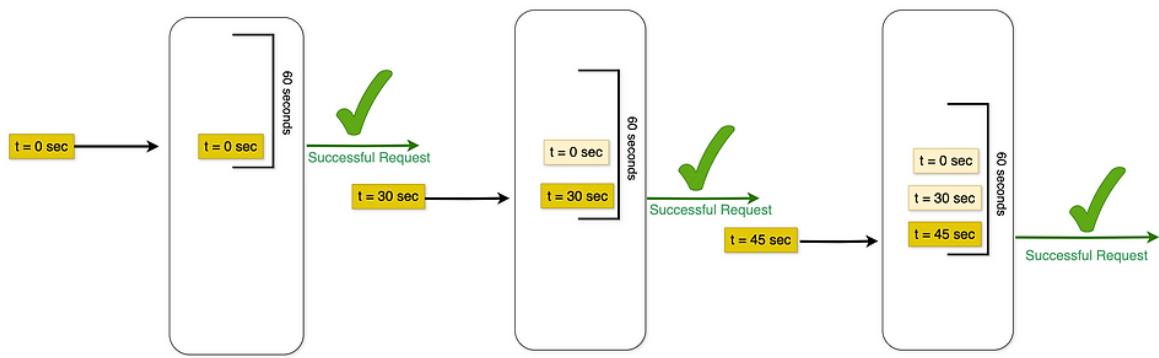
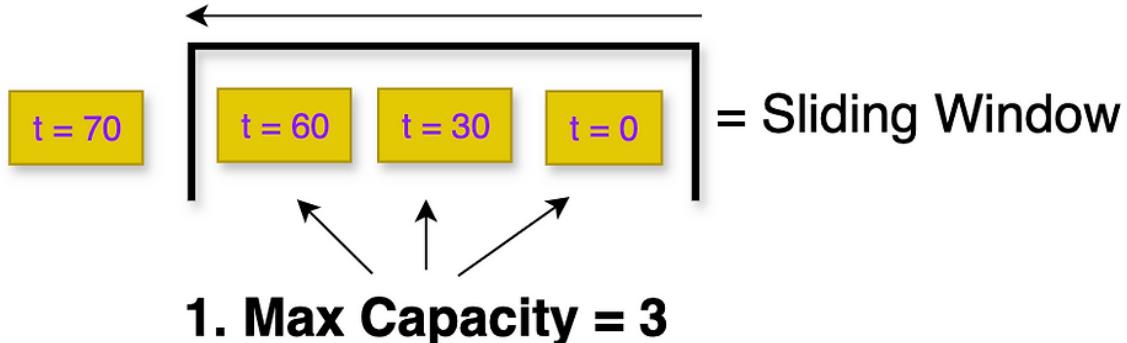


Fixed Window Counter Algorithm

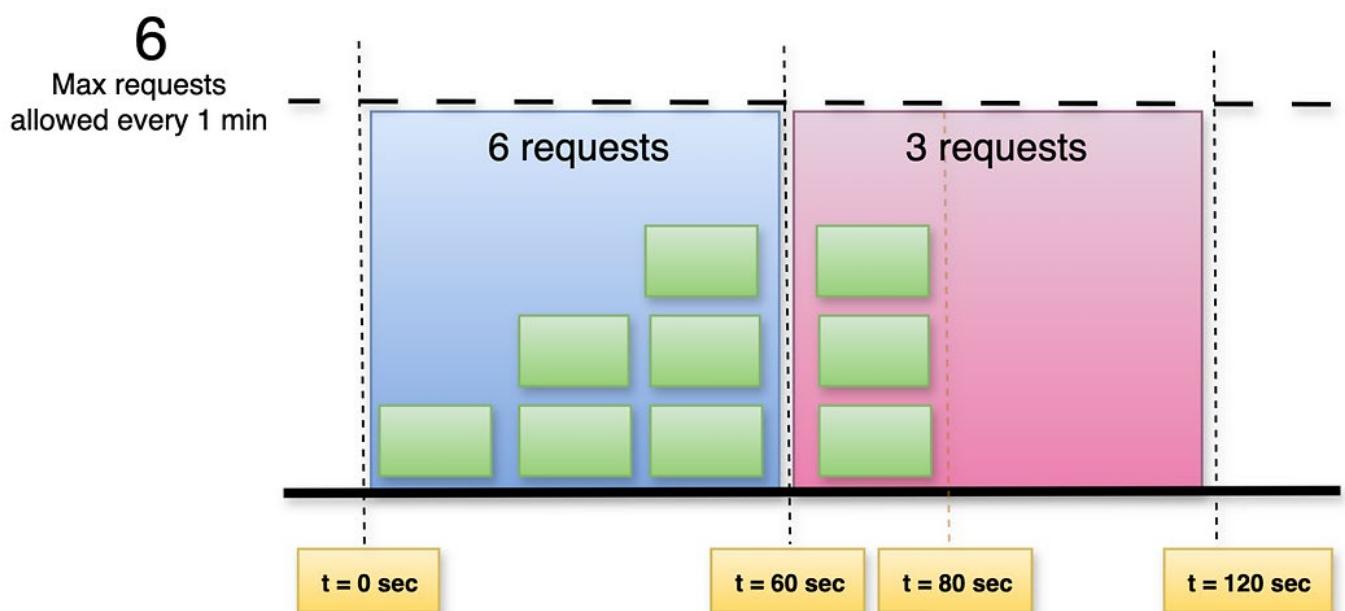


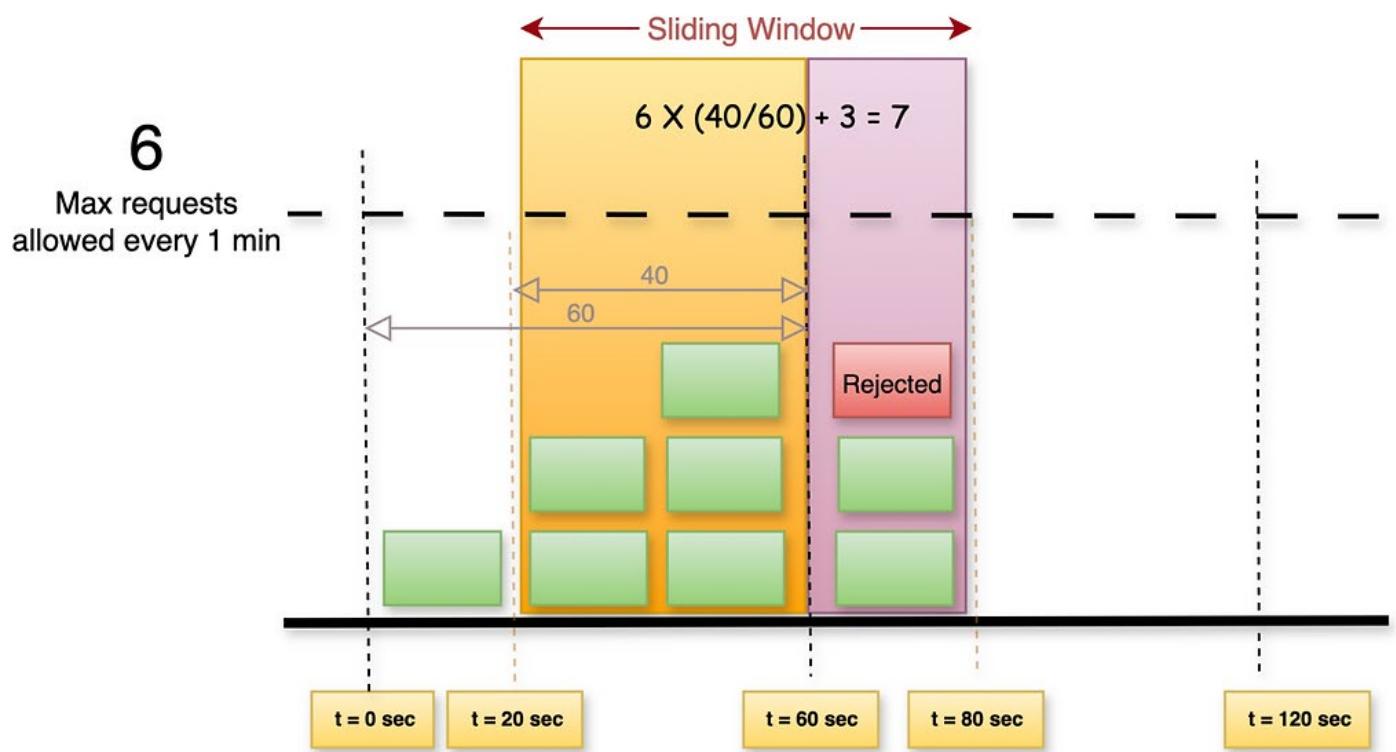
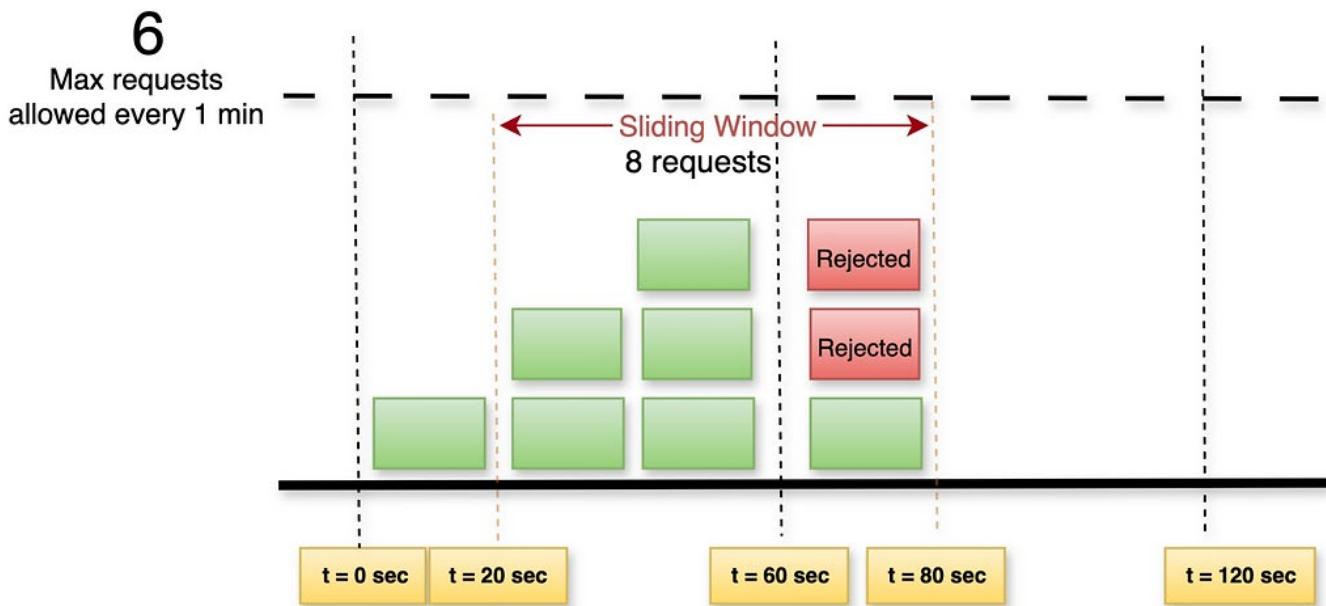
Sliding Window Log Algorithm

2. Lookback = 60 sec



Sliding Window Counter Algorithm





Handling Race Condition

