10: Message queues a.k.a SQS

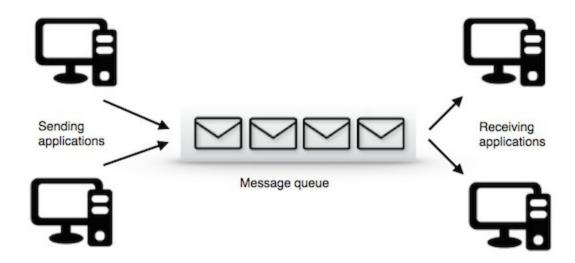
SQS: Simple Queuing service

Analogy: Let's suppose hundreds of customers have queued up to get in front of your restaurant. These customers form a line i.e queue and wait in line until the receptionist assigns a table to the customer one by one asynchronously.

What is a message queue?

Message queues are nothing but temporary buffers placed between users/applications and servers to store the message requests and process them in FIFO order asynchronously until the requests/messages are delivered to the desired server.

Messages are stored in the queue until they are processed and deleted. Each message is processed only once, by a single consumer.



Why do we need message queues?

- 1. Helps in independent scaling of different components of the system
- 2. Async in nature
- 3. Improves reliability and efficiency of the system

References

- 1. https://medium.com/coders-mojo/part-3-complete-system-design-series-e1362baa8a4c
- 2. https://aws.amazon.com/message-queue/