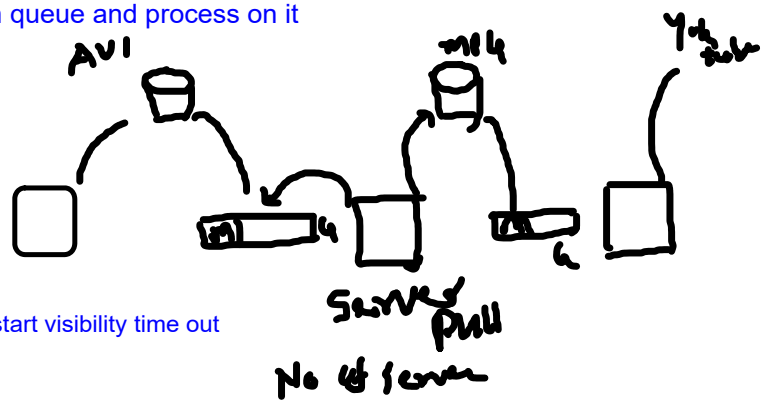
SQS----simple queue service

message queing service

no of server-chain--read message in queue and process on it

one by one process (receipt)



standard queue

fifo

visibilty time out

1------no of server----take message ----start visibility time out
read and start process

for that time no one read message

sqs ----api call by server and delete message

2----message process ---visibility time out (30 sec) (we can change)

3---no process---api call by server to increase time
if no process --automatically message visible

4 -3 server process

dead letter queue----
possibe in standard not possible in fifo

pull services-server pull and process
web services , fast , reliable
message -wait for-process
queue between server
decoupleing ---different --one failure no problem -process done by other server--sqs provide decopule architecture
no need of cluster
sqs many mesage --without delete queue can delete message

no of server --read message and process

all instance read message and process

if your queue size increase ----automatic---auto scaling

sqs message done ---forward another process to other server

multiple queue

standard and fifo queue

standard -high throuput---unlimited throughput ---no sequence ---all process
q1 --four message ----at least one time process ---one to more time may be process --duplicates
best effort --ordering may be change

first message first process and then another in sequence --- fifo---300 throughput
only one time --no duplicate---streak ordering
better than standard

billing----free tier month 1 million monthly request

0.4 $ million request per second ---standerd

0.5 $ million request per second --fifo

charge

api call count as request ---it is chargeable

fifo request---send , delete , receive

content of request---i request have 1 to 10 message

total size-----each 64kb one message ----256 kb queue (call)--it means 4 request

sqs ---store in s3 ---charge

encryption ---kms key ---charge

polling
means pull message from queue
short polling and long polling
shortpolling fast while fast polling take time

short polling ---contineous request -----no of request empty due to no message in queue
request return to server immediately no waiting

receive message time = zero it means shot polling
if we put value it means long polling

long polling --maximum prefere to wait if queue is empty --not immediately return

eliminate all empty response by queuing all server

retension period

how long message remain in queue (maximum 14 days)
default 4 days
maximum retention time complete auto delete message

sqs use with Dynamo DB , Red shift , S3 , EC2 , Lambda

delivery delay
sender (server) send message delay (due to some process take a time)

Receive message wait time
 0 second --short polling
any value Long polling

Dead letter queue
failure no of time in process and develop message in queue
handle failure message **(DLQ)**
dont use DLQ (dead letter queue) in FIFO