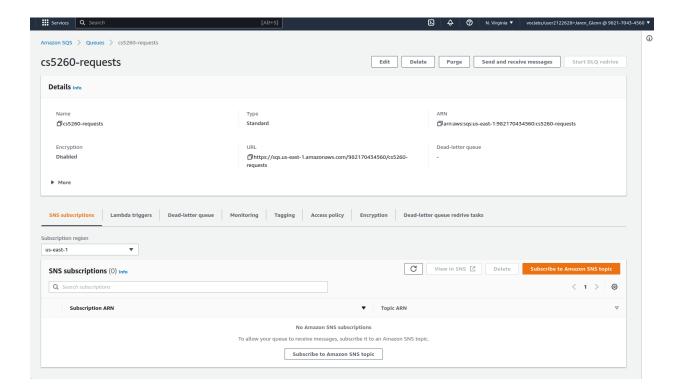
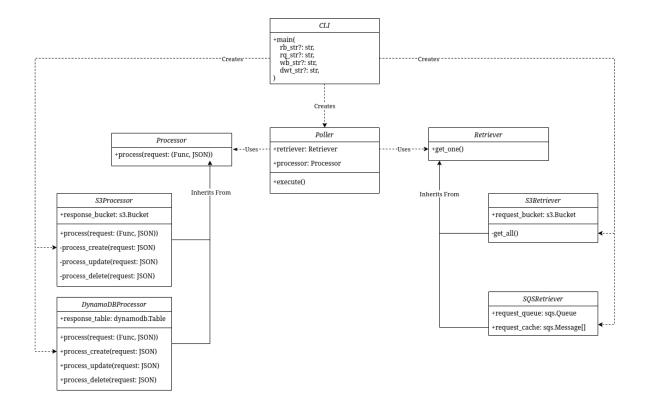
SQS Console



Design Document



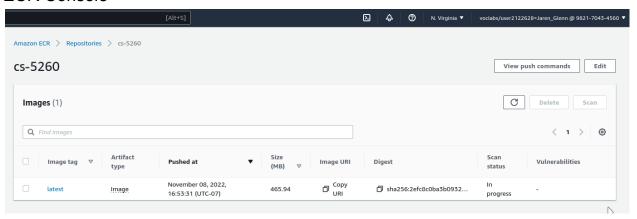
Multiple Consumers

```
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for d440b26f-5f4a-4a25-8a2f-c2a3118131c8
INFO:root:Polling for requests
INFO:root:Processing an UPDATE request into DynamoDB for a857ca19-7974-4284-9a57-6e0e918dafbd
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for b0646c39-72c8-4357-97a7-9e30e0761702
INFO:root:Polling for requests
INFO:root:Processing an UPDATE request into DynamoDB for a857ca19-7974-4284-9a57-6e0e918dafbd
INFO:root:Polling for requests
WARNING:root:Could not find request 1667944189627 to retrieve
INFO:root:No requests found, waiting
INFO:root:Polling for requests
WARNING:root:Could not find request 1667944189873 to retrieve
INFO:root:No requests found, waiting
INFO:root:Polling for requests
WARNING:root:Could not find request 1667944190013 to retrieve
INFO:root:No requests found, waiting
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for 985f6f6c-0d0d-4661-a9a8-8ee9dc69ca5d
INFO:root:Polling for requests
INFO:root:Processing an UPDATE request into DynamoDB for ed945142-f74c-44a5-8a31-88346d0e6bc8
INFO:root:Polling for requests
INFO:root:Processing a DELETE request into DynamoDB for 139442d1-b619-4076-b238-2ef64a969145
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for 139442d1-b619-4076-b238-2ef64a969145
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for 32629889-fe16-49f6-b230-ed5518fe7e4d
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for 487d4917-37ef_44ac-bf41-568b810359b9
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for a857ca19-7974-4284-9a57-6e0e918dafbd
INFO:root:Polling for requests
WARNING:root:Could not find request 1667944188824 to retrieve
INFO:root:No requests found, waiting
INFO:root:Polling for requests
WARNING:root:Could not find request 1667944188981 to retrieve
INFO:root:No requests found, waiting
INFO:root:Polling for requests
INFO:root:Processing an UPDATE request into DynamoDB for a857ca19-7974-4284-9a57-6e0e918dafbd
INFO:root:Polling for requests
INFO:root:Processing an UPDATE request into DynamoDB for b0646c39-72c8-4357-97a7-9e30e0761702
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for 9f5c086c-c761-404a-aa9f-92878ddd5b7e
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for ed945142-f74c-44a5-8a31-88346d0e6bc8
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for 985f6f6c-0d0d-4661-a9a8-8ee9dc69ca5d
INFO:root:Polling for requests
INFO:root:Processing an UPDATE request into DynamoDB for ed945142-f74c-44a5-8a31-88346d0e6bc8
INFO:root:Polling for requests
INFO:root:Processing a DELETE request into DynamoDB for 139442d1-b619-4076-b238-2ef64a969145
INFO:root:Polling for requests
14:50:48.086 [Thread-0] INFO
14:50:48.221 [Thread-0] INFO
                              edu.usu.cs5260.producer.RequestGenerator - Generate a Create request
                              edu.usu.cs5260.producer.RequestGenerator - Generate an Update request
14:50:48.474 [Thread-0] INFO
14:50:48.608 [Thread-0] INFO
                              edu.usu.cs5260.producer.RequestGenerator - Generate a Create request
                              edu.usu.cs5260.producer.RequestGenerator - Generate a Create request
14:50:48.763 [Thread-0] INFO
                              \verb"edu.usu.cs5260.producer.RequestGenerator - Generate a Create request"
14:50:48.906 [Thread-0] INFO
                              edu.usu.cs5260.producer.RequestGenerator - Generate a Create request
14:50:49.043 [Thread-0] INFO
                              edu.usu.cs5260.producer.RequestGenerator - Generate a Create request
14:50:49.183 [Thread-0] INFO edu.usu.cs5260.producer.RequestGenerator - Generate a Create request
```

Consumer in a Docker Container

```
school/cloudDevelopment/homework2 on > master +2 -1 [!?] via & v3.10.8 (.venv) took 2s
→ sudo <u>docker</u> run --env-file <u>docker.env</u> <u>consumer</u>
INFO:botocore.credentials:Found credentials in environment variables.
INFO:root:Connected to AWS
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for f122e3c5-0d5b-4435-bc3c-3d6b26f333f1
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for 2e1427d7-94cf-47bd-939d-6ef95b284539
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for d340cf57-ba4f-47f9-b9c8-039f9c3321f7
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for 93616594-5375-4d69-a2e1-16bfce660ab2
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for c381e8ca-03ac-4343-8d3a-e9a8a1ad7b1a
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for 092bc93d-7ec3-49cd-90eb-2c8bc2a7d822
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for d122f4b2-06fa-4207-8fca-01ef98f4d7ed
INFO:root:Polling for requests
INFO:root:Processing an UPDATE request into DynamoDB for d122f4b2-06fa-4207-8fca-01ef98f4d7ed
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for 3b4b117c-ef85-4a95-91f9-c9827d7cb001
INFO:root:Polling for requests
INFO:root:Processing a CREATE request into DynamoDB for edea01d2-f319-4f6a-8b68-2627690d4a4a
INFO:root:Polling for requests
INFO:root:Processing a DELETE request into DynamoDB for 3b4b117c-ef85-4a95-91f9-c9827d7cb001
INFO:root:Polling for requests
```

ECR Console



Git History

```
a91933d - Jaren Glenn @ 2 hours ago : fixed catching NoSuchKey
776c06d - Jaren Glenn @ 2 hours ago : updated tests
eea161b - Jaren Glenn @ 3 hours ago : implemented widget update and delete
350e0db - Jaren Glenn @ 4 hours ago : updated tests and logging for sqs
6d0e082 - Jaren Glenn @ 5 hours ago : added support for sqs in cli
59a2430 - Jaren Glenn @ 6 hours ago : added SQS retriever
e2979ad - Jaren Glenn @ 6 hours ago : combined cli
```

Questions

- 1. When using standard queues there's no guarantee of first-in-first-out so Delete and Update requests may be processed before their corresponding widget is created.
- 2. Applications that use queues need to be aware of this and handle the situation appropriately perhaps just throwing away the message, or re-adding it to the queue so it can be processed at a later time i.e. after the corresponding message is created.