1. Describing how you could use the AWS tools SNS and SQS to aide in handling messages between services in a microservices architecture.

AWS SNS:

Simple notification service. It is a service that push messages to the endpoints or to clients. With using this service we can send message to large number of subscribers or to mobile devices. We can implement this service by three methods:

1. Using actual AWS console.
2. Serverless framework
3. AWS command line interface

AWS SQS:

Amazon Simple Queue Service. It is a distributed queue service. It is easy to decouple microservices, it means we can write code for each thing non-dependently. The modules need not to be dependent on each other. Using SQS, we can store, send or receive our messages. SQS offers us two types of queue, one is standard , in which message can delivered atleast once but sometimes more than once. But, the other queue that is FIFO, the messages can send or receive just once.

The basic difference I think between SNS and SQS is that In SNS, messages are actually push to users but In SQS, messages are not going to push, user need to ask or poll for the messages.

## 2. Serverless Frameworks:

Apache openwhisk is a serverless, open-source cloud platform with which you can easily create actions, test and connect to other actions or debug them. Apache openwhisk manage the servers that can run our code, we don't need to worry about managing any servers. It can operate and scale our application. The biggest advantage of this framework is we can code in any language,

The languages it can support are:

.js/node, swift, python, java, Docker, Slack etc.

It executes functions (called actions) in response to events (called triggers) without developer concern for managing the lifecycle or operations of the containers that execute the code.

It gives the benefit of Scaling per request and optimal utilization, other advantage is flexible programming.

It has the rich service ecosystem it means, Benefit from a large ecosystem of event emitters and consumers from different vendors covering domains like analytics, cognitive, data, mobile, and IoT.

Squeezer:

Squeezer apps are powered by microservices, which means that the auto-scalability feature is enabled by default. Microservices also support auto-healing and allow for silent cloud deployments.

The Squeezer Platform will compile and deploy apps in multiple stages directly from GitHub or other code repositories.

Squeezer is a platform that helps software developers build apps easily without tackling the entire blockchain infrastructure. It is also a powerful tool for providing high-quality blockchain software components to large enterprise organizations. Squeezer uses world-class microservices platforms, such as AWS Lambda, Google Functions, and Azure Functions.

Benefits of squeezer:

1. We can Deploy your code without any lengthy set-up beforehand
2. No need to set alerts or write scripts to scale up or down
3. You can utilize all your resources without paying a cent for idle time.
4. No need to deploy code at every iteration. Speed up the entire development cycle by 10x.
5. Squeezer is the first platform that merges the power of microservices with the immutability of blockchain technology.

6. The Squeezer Token (SQZR) is the core utility used by developers to build and deploy apps on the Squeezer Platform.