**Lambda:**

* Lambda is a serverless function. You upload your code and it runs without you managing or provisioning any servers
* Officially supported by Lambda: Ruby, Python, Java, NodeJs, C#, Powershell, and Go
* AWS API Gateway and AWS Step Functions  invoke synchronously and asynchronously the AWS Lambda function.
* You can use Lambda as scheduled event and read log files from AWS CloudWatch or CloudTrail and report any errors through SNS notifications.
* The maximum batch size supported by AWS SQS for ReceiveMessage call is 10.
* **Amazon Simple Notification Service (SNS)**

Encrypt topics via KMS

AWS Lambda automatically monitors Lambda functions on your behalf, reporting metrics through Amazon CloudWatch. To help you troubleshoot failures in a function, Lambda logs all the requests handled by your function and also automatically stores logs generated by your code through Amazon CloudWatch Logs.

With AWS SAM, the application can be tested locally by invoking Lambda function & event sources locally. Using these SAM templates, the application can be tested thoroughly before deploying in the AWS cloud. Also, CodeDeploy is built with AWS SAM which can help to deploy gradually within Cloud along with the existing applications which can minimize risks

**Cloud9:**  A cloud-based integrated development environment (IDE) that lets you write, run, and debug your code with just a browser. It includes a code editor, debugger, and terminal. Cloud9 comes prepackaged with essential tools for popular programming languages, including JavaScript, Python, PHP, and more, so you don’t need to install files or configure your development machine to start new project

* **Simple Queue Service (SQS)** is a queuing service using messages with a queue.
* To read SQS use need to pull the queue using the AWS SDK and uses pull-based (polling) not push-based.
* Messages can be kept in the queue from 1 minute to 14 days Messages will be deleted from the queue after a job has processed
* The default visibility time-out is 30 seconds. The timeout can be 0 seconds to a maximum of 12 hours.
* Message size between 1 byte to 256 kb,