Modern Applications (Exam Prep notes)

1. For messages up to 2 GB in amazon SQS, use the SQS extended client library SDK. <https://aws.amazon.com/about-aws/whats-new/2015/10/now-send-payloads-up-to-2gb-with-amazon-sqs/>
2. Session data can be stored in both Elasticache and DynamoDB. Elasticache will be faster and cheaper but meant to be temporary and not used for long term storage. If we need to store session data for long term DynamoDB will be a better option. <https://forums.aws.amazon.com/thread.jspa?threadID=143181>
3. To monitor the number of users logging into AWS use CloudTrail. If we’re using Cognito to authenticate users to our application, we still use CloudTrail to keep track of logged in users. <https://docs.aws.amazon.com/cognito/latest/developerguide/monitoring.html>

Note: Study AWS code build, in detail and how to use cli commands

Note: Study Lambda versions and $LATEST version

Note: Create a Demo that will include Memcached and Redis as in memory caching systems

Note: Study Recursive Lambda Functions. <https://aalvarez.me/posts/recursive-python-aws-lambda-functions/>

Note: Lambda function throttling. <https://aws.amazon.com/premiumsupport/knowledge-center/lambda-troubleshoot-throttling/>

1. If we want to run Lambda functions in different stages like dev, test and prod, it’s better to use API gateways and create the stages there. But the function itself can also use Aliases to run in different stages too. <https://www.contentstack.com/blog/tech-talk/deploying-aws-lambda-in-different-environments/>
2. Code Deploy can create a canary release for different lambda versions. <https://effectiveserverless.com/lambda-codedeploy-canary#:~:text=A%20Lambda%20Version%20is%20an,traffic%20to%20that%20Lambda%20Version>.
3. Ho can Lambda boto3 securely access RDS database by storing secret database credentials in SSM parameter store.

<https://aws.amazon.com/blogs/security/how-to-securely-provide-database-credentials-to-lambda-functions-by-using-aws-secrets-manager/>

<https://nqbao.medium.com/how-to-use-aws-ssm-parameter-store-easily-in-python-94fda04fea84>

1. Learn Elastic beanstalk in detail with configuration file setup
2. Write Python code to use aroura read replicas with reporting
3. Use DynamoDB streams in your python code
4. Write Python code to use AWS Xray