Tutorial Dojo – Practice Exam – Review Mode – 3

**Final Results 69.23% (45/65) – 05/29/2023**

**CSAA – Design Cost-Optimized Architectures - 77.78%**

**CSAA – Design High-Performing Architectures - 63.64%**

**CSAA – Design Resilient Architectures - 76.47%**

**CSAA – Design Secure Architectures - 64.71%**

**Notes –**

* You will be billed when your On-Demand instance is preparing to hibernate with a stopping state
* You will be billed when your Reserved instance is in a terminated state
* AWS DMS migrates DB’s to AWS with virtually no downtime
* Modify RDS DB Instance settings and enable storage autoscaling to increase disk space without impacting the DB’s performance
* NACL’s evaluate traffic starting with the lowest numbered rule – as soon as a rule matches traffic, it’s applied immediately regardless of any higher-numbered rule that may contradict it
* Create an AWS Backup Plan to take daily snapshots with a retention period of 90 days when the requirement is to implement a 90 day backup retention policy
  + Maximum backup retention period for automated backups is only 35 days – Aurora
* Use Amazon S3 Transfer acceleration to improve throughput and ensure consistently fast data transfer to the S3 bucket – regardless of the user’s location
* Convert audio recordings into text using Amazon Transcribe. Setup Amazon translate to translate foreign texts into English. Use Amazon Comprehend for sentiment analysis
* Allow multiple domains to serve SSL traffic without the need to reauthenticate and reprovision your certificate every time you add a new domain –
  + Upload all SSL certificates of the domains in the ALB using the console and bind multiple certificates to the same secure listener on your load balancer. ALB will automatically choose the optimal TLS certificate for each client using Server Name Indication (SNI)
* When a DB is required to be highly-scalable and HA + undergo frequent schema changes throughout the voting period – use Amazon DynamoDB and AWS AppSync
* Use API Gateway in conjunction with Lambda and turn on the caching on frequently accessed data and enable DynamoDB Global Replication + Enable DynamoDB Accelerator (DAX) and ensure that the Auto Scaling is enabled and increase the maximum provisioned R/W capacity.
  + When deployed via CLI, DynamoDB Auto Scaling is DISABLED
* When replicating S3 cross account and ensure that destination account owns the copied objects and not the account it was sent from – Configure cross-account permissions in S3 by creating an IAM customer-managed policy that allows an IAM use or Role to copy objects from the source bucket in one account to the destination bucket in the other account. Then attach the policy to the IAM user or role that you want to use to copy objects between accounts
* By default, Fargate tasks are given a minimum of 20 GiB of free ephemeral storage
* To ensure that the required components are properly running before the CFN stack creation proceeds – Configure a CreationPolicy attribute to the instance in the CloudFormation template. Send a success signal after the applications are installed and configured using the cfn-signal helper script
* S3 Glacier Expedited Retrieval allows you to quickly access your data - typically 1-5 minutes
  + Provisioned Capacity ensures that retrieval capacity for Expedited Retrievals is available when you need it
* When resources in a private subnet require access to S3 and the goal is to lower data transfer costs – Create an Amazon S3 Gateway Endpoint to enable a connection between the instances and S3
  + No Additional Charge for using GW Endpoints – standard charged for data transfer + resource usage still apply
  + Vs. interface endpoint – you pay an hourly rate for every provisioned interface endpoint – not cost effective
* To copy all application data to AWS and retain the ability to retrieve data with the same low-latency as the local (on-premises) file share – use AWS Storage GW – supports local caching without any development overhead – suitable for low-latency applications