

Final Assessment – 2

Answer & Explanation

Date 20-JAN-2022

Ques No : 01

Correct Answer: When using Savings Plans, 72% of savings can be made on Amazon EC2, AWS Fargate, and AWS Lambda usage.

Savings Plans are flexible discount pricing models that offer reduced rates if the customer commits to one year or three-year consistent usage. These are confined to Amazon EC2, AWS Fargate, and AWS Lambda usage.

Incorrect: When considering migrating to the cloud, the AWS Total Cost of Ownership (TCO) calculator is guaranteed to save up to 80% of the cost of running on-premise infrastructure because using the AWS Total Cost of Ownership (TCO) calculator is an estimation tool, it does not guarantee saving up to 80% of the cost of running on-premise infrastructure, however, the tool allows the customer to estimate and anticipate their total AWS spend according to their use case.

Incorrect: In AWS Budgets, utilizing Cost and Usage budgets will optimize and reduce the overall spend by 79% because in AWS Budgets, utilizing Cost and Usage budgets will give the customer foresight into how much they would like to use and spend on their AWS services. Utilizing this service will not reduce the overall spend by an exact percentage, therefore this statement is inaccurate.

Incorrect: The AWS Pricing Calculator will work out a revised bill that can reduce the overall spend by 60% if you commit to a long-term usage plan because the AWS Pricing Calculator does not revise the customer bill, it allows the customer to derive an estimation of the cost of their AWS resources before the costs are incurred. Therefore this statement is inaccurate.

More Information:

<https://docs.aws.amazon.com/savingsplans/latest/userguide/what-is-savings-plans.html>

Ques No : 02

Correct Answer: The ability to only pay for what you use

One of the advantages of EC2 Instances is the per-second billing concept.

With per-second billing, you pay for only what you use. It takes the cost of unused minutes and seconds in an hour off of the bill, so you can focus on improving your applications instead of maximizing usage to the hour. Especially, if you manage instances running for irregular periods of time, such as dev/testing, data processing, analytics, batch processing and gaming applications, can benefit.

Incorrect: All other options are incorrect.

More Information:

<https://aws.amazon.com/ec2/pricing/>

Ques No : 03

Correct Answers:

1. Securing edge locations
2. Monitoring physical device security
3. Implementing service organization Control (SOC) standards

The responsibility of AWS includes the following:

1. Securing edge locations
2. Monitoring physical device security
3. Implementing service organization Control (SOC) standards

More Information:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Ques No : 04

Correct Answer:

1. A service that prompts the user with alerts and notifications on AWS scheduled activities, pending issues, and planned changes.
2. User-specific view on the availability and performance of AWS services, underlying their AWS resources.

The Personal Health Dashboard is a tool that shows the status of AWS services running the user-specific resources. It is a graphical representation that sends alerts, notifications of any personal pending issues, planned changes, and scheduled activities.

Incorrect: A concise representation of the general status of AWS services is incorrect because it describes a general overview of the Service Health Dashboard

Incorrect: A minute-by-minute update of system outages and service errors on the AWS global infrastructure is incorrect because it describes the Service Health Dashboard

Incorrect: A rolling log of all service interruptions across the AWS network and records of incidents persistent for a year is incorrect because it describes the Status History of the Service Health Dashboard

More Information:

<https://aws.amazon.com/premiumsupport/technology/personal-health-dashboard/>

Ques No : 05

Correct Answer: In AWS Budgets, creating an email alert based on the budget parameters would suffice.

AWS Budgets provides a useful feature of setting custom budgets that prompt the user when their costs or usage are forecasted to exceed. The forecast aspect gives a buffer period in advance when alerting the user. Budgets can be tracked at the monthly, quarterly, or yearly level, and have a customizable start and end dates. Alerts can be sent via email and/or Amazon Simple Notification Service (SNS) topic.

Incorrect: Regularly review their Billing and Cost management dashboard during the course of the month in the management console because the regular review will not stop nor alert the department if their service bill were to exceed their stipulated budget.

Incorrect: Under Billing Preferences > Cost Management Preferences, they should tick the Receive Free Tier Usage Alerts checkbox because selecting the Receive Free Tier Usage Alerts checkbox would notify the department each time their service bills go out of the free-tier range only and not when it approaches the limit.

Incorrect: In AWS CloudWatch they ought to create an alarm that triggers each time the services bill surpasses the limit because configuring an alarm in AWS CloudWatch that triggers after exceeding the bill will not meet the requirements of staying within the desired budget. The alarm triggers when the account billing exceeds the threshold specified. It triggers only when actual billing exceeds the threshold. It does not use projections based on the usage so far in the month.

More Information:

<https://aws.amazon.com/aws-cost-management/aws-budgets/>

<https://docs.aws.amazon.com/account-billing/index.html>

https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/monitor_estimated_charges_with_cloudwatch.html

Ques No : 06

Correct Answers:

1. AWS Inspector
2. AWS Trusted Advisor

An online resource to help you reduce cost, increase performance, and improve security by optimizing your AWS environment, Trusted Advisor provides real-time guidance to help you provision your resources following AWS best practices. The AWS Inspector can inspect EC2 Instances against common threats.

Incorrect: All other options are incorrect.

More Information:

<https://aws.amazon.com/premiumsupport/trustedadvisor/>

https://docs.aws.amazon.com/inspector/latest/userguide/inspector_introduction.html

Ques No : 07

Correct Answer: Latency based routing policy

On reading the scenario carefully, we can see here that performance of the website is of prime importance to its users since it gives them a lot of business value to be able to choose their flight paths & do their flight bookings on time. So, "Latency based routing" is the best answer to this scenario.

Incorrect: GeoLocation routing policy is incorrect because GeoLocation routing is often used to localize content and present the website in the language of its users. Geolocation routing lets you choose the resources that serve your traffic based on the geographic location of your users, meaning the location that DNS queries originate from. For example, you might want all queries from Europe to be routed to an ELB load balancer in the Frankfurt region irrespective of latency in that region.

Incorrect: Failover routing policy is incorrect because Failover routing is usually used in Disaster Recovery scenarios where an Active-Passive Disaster recovery configuration is present & the Passive resource that was originally the Backup resource has now become the Active resource due to the original Active resource being unhealthy.

Incorrect: Multivalued answer routing policy is incorrect since Multivalued answer routing provides the ability to return multiple health-checkable IP addresses which is a way to use DNS to improve availability and load balancing.

More Information:

Since Latency based routing always routes DNS queries to the best performing website (region) irrespective of what happens in the Amazon infrastructure, Internet. Going back to our scenario, if we have ELB load balancers in the US West (Oregon) region and in the Asia Pacific (Mumbai) region for the Weather tracking & Airline Ticketing website and if a user from London enters the name of your domain in a browser, the following things will happen

DNS routes the query to a Route 53 name server.

Route 53 refers to its data on latency between London and the Mumbai region and between London and the Oregon region.

If latency is lower between the London and Oregon regions, Route 53 responds to the query with the IP address for the Oregon load balancer. If latency is lower between London and the Mumbai region, Route 53 responds with the IP address for the Mumbai load balancer.

<https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/routing-policy.html#routing-policy-latency>

Ques No : 08

Correct Answer: Multi-Factor Authentication (MFA)

AWS Multi-Factor Authentication (MFA) is a simple best practice that adds an extra layer of protection on top of your user name and password.

More Information:

<https://aws.amazon.com/iam/details/mfa/>

Ques No : 09

Correct Answer: AWS CloudFormation Change Sets

AWS CloudFormation Stack Sets can be used to preview changes to AWS resources that will be applicable when a stack is executed.

Incorrect: AWS CloudFormation Drift Detection is used to detect if any changes made to resources outside of CloudFormation templates. It would not be able to preview changes which will be made by CloudFormation Templates.

Incorrect: AWS CloudFormation Stack Sets is incorrect as these are groups of stacks which are managed together.

Incorrect: AWS CloudFormation Intrinsic Functions is incorrect as these Intrinsic Functions are used for assigning values to properties in CloudFormation templates.

More Information:

<https://aws.amazon.com/cloudformation/features/>

Ques No : 10

Correct Answer: Can be performed by the customer, provided they work with the list of services mentioned by AWS.

You no need to take prior authorization from AWS before doing a penetration test on EC2 Instances.

Incorrect: All other options are incorrect.

As per AWS, a user can only be allowed to conduct security assessments against AWS resources that they own and if they make use of the Permitted Services listed below:

- Amazon EC2 instances, NAT Gateways, and Elastic Load Balancers
- Amazon RDS
- Amazon CloudFront
- Amazon Aurora
- Amazon API Gateways
- AWS Lambda and Lambda Edge functions
- Amazon Lightsail resources
- Amazon Elastic Beanstalk environments

More Information:

<https://aws.amazon.com/security/penetration-testing/>

Ques No : 11

Correct Answer: DynamoDB has a flexible data model and single-digit millisecond latency

The use cases mentioned in the scenario have unstructured data in common, therefore, the most appropriate attribute of Amazon DynamoDB is its flexible data model and single-digit millisecond latency.

Incorrect: DynamoDB is a fully-managed database instance with no infrastructure overheads is incorrect because being fully-managed and having no infrastructure overheads does not distinguish DynamoDB as the best-suited solution for the given use cases.

Incorrect: Whilst in operation, DynamoDB instances are spread across at least three geographically distinct centres, AWS Regions is incorrect because the aspect of fault-tolerance, disaster recovery and high availability is also present in Amazon Relational Databases (RDS), this feature does not distinguish the service in accordance with the described use cases.

Incorrect: DynamoDB supports eventual and strongly consistent reads is incorrect because this attribute of DynamoDB does not fully justify its exclusive choice over other instances when considered for implementation in the use cases mentioned in the question.

More Information:

<https://aws.amazon.com/blogs/database/how-to-determine-if-amazon-dynamodb-is-appropriate-for-your-needs-and-then-plan-your-migration/>

Ques No : 12

Correct Answers:

1. Amazon Simple Storage Service (Amazon S3)
2. Amazon Elastic Block Store (Amazon EBS)

The AWS documentation mentions the following:

Amazon S3 is object storage built to store and retrieve any amount of data from anywhere – web sites and mobile apps, corporate applications, and data from IoT sensors or devices. It is designed to deliver 99.999999999% durability, and stores data for millions of applications used by market leaders in every industry.

Amazon Elastic Block Store (Amazon EBS) provides persistent block storage volumes for use with Amazon EC2 instances in the AWS Cloud. Each Amazon EBS volume is automatically replicated within its Availability Zone to protect you from component failure, offering high availability and durability.

Incorrect: Amazon CloudWatch is used for performance monitoring.

Incorrect: AWS Config is used to audit and monitor configuration changes.

Incorrect: Amazon Athena is a serverless query service used to analyze BigData stored in S3.

More Information:

Simple Storage Service: <https://aws.amazon.com/s3/>

Amazon EBS: <https://aws.amazon.com/ebs/>

Correct Answer: Aurora

Ques No : 13

Amazon Aurora (Aurora) is a fully managed, MySQL- and PostgreSQL-compatible, relational database engine. It combines the speed and reliability of high-end commercial databases with the simplicity and cost-effectiveness of open-source databases. It delivers up to five times the throughput of MySQL and up to three times the throughput of PostgreSQL without requiring changes to most of your existing applications.

More Information:

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Aurora.Overview.html>

Ques No : 14

Correct Answer: AWS SNS

Amazon Simple Notification Service (Amazon SNS) is a web service that enables applications, end-users, and devices to instantly send and receive notifications from the cloud.

More Information:

<https://aws.amazon.com/documentation/sns/>

Ques No : 15

Correct Answer: Amazon EC2

All of the other services are all managed by AWS as serverless components. Only you have complete control over the EC2 service.

More Information:

<https://aws.amazon.com/ec2/>

Ques No : 016

Correct Answer : - 5

Ques No : 17

Correct Answer :- 1,3, 4

Ques No : 18

Correct Answer :- 2

Ques No : 19

Correct Answer - 2

Ques No : 20

Correct Answer - 3, 5

Ques No : 21

Correct Answer - 1

Ques No : 22

Correct Answer - 1

Ques No : 23

Correct Answer - 2

Ques No : 24

Correct Answer - 1

Ques No : 25

Correct Answer - 3,4

Ques No : 26

Correct Answer - 2

Ques No : 27

Correct Answer :- 1,3, 4

Ques No : 28

Correct Answer :- 2

Ques No : 29

Correct Answer :- 2

Ques No : 30

Correct Answer :- 1

Ques No : 31

Correct Answer :- 1

Ques No : 32

Correct Answer :- 2

Ques No : 33

Correct Answer :- 1

Ques No : 34

Correct Answer :- 3,4

Ques No : 35

Correct Answer :- 2

Ques No. 36

Correct Answer :- 2

Ques No : 37

Correct Answer :- 2

Ques No : 38

Correct Answer - 1

Ques :39

Correct Answer :- 2

Ques No : 40

Correct Answer - 3

Ques No : 41

Correct Answer - 3

Ques No : 42

Correct Answer – 2,3

Ques No : 43

Correct Answer - 2

Ques No : 44

Correct Answer - 2

Ques No : 45

Correct Answer - 1

Ques No : 46

Correct Answer - 4

Ques No : 47

Correct Answer 2

Ques No : 48

Correct Answer 3

Ques No : 49

Correct Answer 4

Ques No : 50

Correct Answer 2

Ques No : 51

Correct Answer 2

Ques No : 52

Correct Answer 4

Ques No : 53

Correct Answer 1

Ques No : 54

Correct Answer 3

Ques No : 55

Correct Answer 2

Ques No : 56

Correct Answer 4

Ques No : 57

Ques No : 58

Correct Answer 4

Ques No : 59

Correct Answer 3

Ques No : 60

Correct Answer 2

Ques No : 061

Correct Answer 1

Ques No : 62

Correct Answer 3

Ques No : 63

Correct Answer 2

Ques No : 64

Correct Answer 3

Ques No : 65

Correct Answer 1,3

Thank you !!!

- **Time is Up : Test is Over**
- **Save & Close your Excel File**