**MODULE 1**

1. what are the advantages of cloud computing over computing on-premises?

* ***all of the above***

1. what is the pricing model that enables aws customers to pay for resources on an as-needed basis?

* ***pay as you go***

1. which of these is NOT. a could deployment model?

* ***system administration as a service***

1. true or false. aws owns and maintains the network-connected hardware required for application services, while you provision and use what you need.

* ***true***

1. which of these is NOT a benefit of cloud computing over on-premises computing?

* ***paying for racking, stacking, and powering servers***

1. which of the following are NOT benefits of AWS cloud computing? choose 2.

* ***1. high-latency***
* ***2. multiple procurement cycles***

1. which of the following is a compute service?

* ***amazon ec2***

1. true or false. cloud computing provides a simple way to access servers, storage, databases, and a broad set of application services over the internet. you own the network-connected hardware required for these services and amazon web services provisions what you need.

* ***false***

1. economies of scale result from ---

* ***having hundreds of thousands of customers aggregated in the cloud***

1. which of these are ways to access aws core services? choose 3.

* ***1. aws management console***
* ***2. aws command line interface***
* ***3. software development kits***

**MODULE 2**

1. For certain services like Amazon Elastic Compute Cloud (Amazon EC2) and Amazon Relational Database Service (Amazon RDS), you can invest in reserved capacity. What options are available for Reserved Instances?

* ***AURI***
* ***NURI***
* ***PURI***

1. Where can a customer go to get more details about Amazon Elastic Compute Cloud (Amazon EC2) billing activity that took the place 3 months ago?

* ***AWS Cost Explorer***

1. True or false? To receive the discounted rate associated with Reserved Instances, you must make a full, upfront payment for the term of the agreement

* ***False***

1. There is no charge for which of the following?

* ***Inbound data transfer (with some exceptions)***
* ***Data transfer between services within the same AWS Reg***

1. What are the four support plans offered by AWS Support?

* ***Basic, Developer, Business, Enterprise***

1. What AWS tool compares the cost of running your application in an on-premises data center to AWS?

* ***Total Cost of Ownership (TCO) calculator***

1. As AWS grows, the cost of doing business is reduced and savings are passed back to the customer with lower pricing. What is this optimization called?

* ***Economics of scale***

1. True or false? AWS offers a variety of services at no charge, for example, Amazon Virtual Private Cloud (Amazon VPC), AWS Identity and Access Management (IAM), Consolidated Billing, AWS Elastic Beanstalk, automatic scaling, AWS OpsWorks and AWS CloudFormation. However, you might be charged for other AWS services that you use in conjunction with these services

* ***True***

1. When are free data transfers applicable across AWS?

* ***Free inbound data transfer for Amazon Elastic Computer Cloud (Amazon EC2) instances***
* ***Free outbound data transfer between AWS services within the same Region***

1. True of false? Unlimited services are available with the AWS Free Tier to new AWS customers for 12 months following their AWS sign-up date.

* ***False***

**MODULE 3**

1. Which component of the AWS Global Infrastructure does Amazon Cloudfront use to ensure low-latency delivery? (Select the best answer.)

* ***Amazon CloudFront uses AWS edge locations to ensure low-latency delivery.***

1. You can run applications and workloads from a Region closer to the end users to \_\_\_\_\_\_\_ latency

* ***You can run applications and workloads from a region closer to the end users to decrease latency.***

1. True or False? Networking, storage, compute, and databases are examples of service categories that AWS offers.

* ***These are examples of services that AWS offers.***

1. Which of the following are geographic areas that host two or more Availability Zones? (Select the best answer.)

* ***AWS Regions host two or more availability zones.***

1. \_\_\_\_\_ means the infrastructure has built-in component redundancy and \_\_\_\_ means that resources dynamically adjust to increases or decreases in capacity requirements.

* ***Fault tolerant means that the infrastructure has built-in component redundancy and elastic and scalable means that resources dynamically adjust to increases or decreases in capacity requirements.***

1. True or False? Availability Zones within a Region are connected through low-latency links.

* ***It's true that Availability Zones within a Region are connected through low latency links.***

1. Which of these statements about Availability Zones is not true? (Select the best answer.)

* ***A data center cannot be used for more than one Availability Zone.***

1. What is true about Regions? (Choose two.)

* ***Low Latency links***

1. AWS highly recommends provisioning your compute resources across \_\_\_\_\_ Availability Zones. (Select the best answer.)

* ***AWS highly recommends provisioning your compute resources across multiple Availability Zones.***

1. True or False? Edge locations are only located in the same general area as Regions.

* ***Edge locations do not need to be located in the same general area as Regions.***

**MODULE 4**

1. In the shared responsibility model, AWS is responsible for providing what? (Select the best answer.)

* ***In the shared responsibility model, AWS is responsible for providing security of the cloud.***

1. In the shared responsibility model, which two of the following are examples of "security in the cloud" (Choose two.)

* "***Encryption of data at rest and data in transit" and "Security group configurations" are examples of security in the cloud.***

1. Which of the following is the responsibility of AWS under the AWS shared responsibility model? (Select the best answer.)

* ***Maintaining physical hardware is the responsibility of AWS under the shared responsibility model***.

1. When creating an AWS Identity and Access Management (IAM) policy, what are the two types of access that can be granted to a user? (Choose two.)

* ***When creating an IAM policy, a user can be granted AWS management console access and programmatic access.***

1. True or False? AWS Organizations enables you to consolidate multiple AWS accounts so that you centrally manage them.

* ***When creating an IAM policy, a user can be granted AWS Management Console access and programmatic access. False***

1. Which of the following are best practices to secure your account using AWS Identity and Access Management (IAM)? (Choose two.)

* ***Managing access to AWS resources and defining fine-grained access rights are best practices when securing accounts with AWS IAM.***

1. Which of the following should be done by the AWS account root user.

* ***Changing the AWS support plan can only be done by the AWS account root user. The other tasks are done with IAM.***

1. After initial login, what does AWS recommend as best practice for the AWS account root user? (Select the best answer.)

* ***After initial login, AWS recommends deleting the access keys of the AWS account root user as the best practice.***

1. How would the system administrator add an additional layer of login security to a user's AWS management console? (Select the best answer.)

* ***To add an additional layer of login security to a user's AWS Management Console, enable multi-factor authentication.***

1. True or False? AWS Key Management Service (AWS KMS) enables you to assess, audit, and evaluate the configurations of your AWS resources.

* ***AWS Key Management Service (AWS KMS) is a service that allows you to create and manage encryption keys and control the use of encryption access across a wide range of AWS services and in your applications.***

**MODULE 5**

1. With Amazon Virtual Private Cloud (Amazon VPC), what is the smallest size subnet you can have in a VPC? (Select the best answer.)

* ***The smallest size you can have in a VPC is /28***

1. With Amazon Virtual Private Cloud (Amazon VPC), what is the maximum size IP address range you can have in a VPC? (Select the best answer.)

* ***The maximum size IP address range you can have in a VPC is /16.***

1. You need to allow resources in a private subnet to access the internet. Which of the following must be present to enable this access? (Select the best answer.)

* ***If you need to allow resources in a private subnet to access the internet, a NAT gateway must be present to enable this access.***

1. Which AWS networking service enables a company to create a virtual network within AWS? (Select the best answer.)

* ***Amazon Virtual Private Cloud enables a company to create a virtual network within AWS***.

1. True or False? Private subnets have direct access to the internet.

* ***Private subnets do not have direct access to the internet.***

1. Which component of AWS Global Infrastructure does Amazon CloudFront use to ensure low-latency delivery? (Select the best answer.)

* ***To ensure low-latency delivery, Amazon CloudFront uses AWS edge locations.***

1. Which of the following is an optional security control that can be applied at the subnet layer of a VPC? (Select the best answer.)

* ***A network ACL is an optional security control that can be applied at the subnet layer of a VPC.***

1. What happens when you use Amazon Virtual Private Cloud (Amazon VPC) to create a new VPC? (Select the best answer.)

* ***When you create a VPC, a route table is created by default. You must manually create subnets and an internet gateway.***

1. Which of thee following can be used to protect Amazon Elastic Compute Cloud (Amazon EC2) instances hosted in AWS? (Select the best answer.)

* ***A security group acts as a virtual firewall for your instance to control inbound and outbound traffic.***

1. You are a solutions architect who works at a large retail company that is migrating it's existing infrastructure to AWS. You recommend that they use a custom VPC. When you create a VPC, you assign it to an IPv4 Classless Inter-Domain Routing (CIDR) block of 10.0.1.0/24 which has 256 total IP addresses. How many IP addresses are available? (Select the best answer.)

* ***The subnet has 256 IP addresses but 5 are reserved***.*(251)*

**MODULE 6**

1. Why is AWS more economical than traditional data centers for applications with varying compute workloads

* ***Amazon EC2 instances can be launched on-demand when needed***

1. If your project requires monthly reports that iterate through very large amounts of data, which Amazon Elastic Cloud (Amazon EC2) purchasing option should you consider?

* ***Scheduled Reserved Instances***

1. What is included in an Amazon Machine Image (AMI)?

* ***All of the above***

1. Which Amazon Elastic Compute Cloud (Amazon EC2) feature ensures your instances will not share a physical host with instances from any other customer?

* ***Dedicated Instances***

1. Which of the following services is a serverless compute service in AWS?

* ***AWS Lambda***

1. What is the service provided by AWS that enables developers to easily deploy and manage applications in the cloud?

* ***AWS Elastic Beanstalk***

1. Your web application needs four instances to support study traffic all of the time. On the last day of the month, the traffic triples. What is the most cost-effective way to handle this pattern?

* ***Run for Reserved Instances constantly, then add eight On-Demand Instances on the last day of each month***

1. Containers contain an entire operating system  
   True or False?

* ***False***

1. Which Amazon EC2 option is best for long-term workloads with predictable usage patterns?

* ***Reserved Instances***

1. Which of the following must be specified when launching a new Amazon Elastic Compute Cloud (Amazon EC2) Windows Instance  
   (Choose 2)

* ***Amazon EC2 Instance type***
* ***Amazon Machine Image (AMI)***

**MODULE 7**

1. True or False?  
   Amazon Simple Storage Service (Amazon S3) is an object storage suitable for the storage of flat files like Microsoft Word documents, photos, etc.

* ***True***

1. Amazon S3 replicates all objects\_\_\_\_\_\_\_.

* ***in multiple Availability Zones within the same region***

1. Which of the the following can be used as a storage class for an object lifecycle policy?  
   Choose 3

* ***S3 - Infrequent Access***
* ***Simple Storage Service Glacier***
* ***S3 - Standard Access***

1. The name of a S3 bucket must be unique\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* ***worldwide across all AWS accounts***

1. You can use Amazon Elastic File System (Amazon EFS) to:

* ***implement storage for Amazon EC2 instances that multiple virtual machines can access***

1. Amazon Elastic Block Store (Amazon EBS) is recommended when data \_\_\_\_\_ and \_\_\_\_\_\_\_.  
   Choose 2

* ***must be quickly accessible, requiring long-term persistence***
* ***requires an encryption solution***

1. By default, all data stored in Amazon S3 is viewable by the public

* ***False***

1. Regarding Amazon S3 Glacier, what is a Vault?

* ***A container for strong archives***

1. When you create a bucket in Amazon S3, it is associated with a specific AWS Region

* ***True***

1. Which of the following are features of Amazon Elastic Block Store (Amazon EBS)?  
   Choose 2

* ***Data stored on Amazon EBS in automatically replicated within an Availability Zone.***
* ***Amazon EBS volumes can be encrypted transparently to workloads on the attached instance***

**MODULE 8**

1. You are designing an ecommerce web application that will scale to hundreds of thousands of concurrent users, Which database technology is best suited to hold the session state in this example?

* ***Amazon DynamoDB***

1. You need to find an item in Amazon DynamoDB table using an attribute other than item's primary key. Which of the following operations should you use?

* ***Scan***

1. In Amazon DynamoDB, what does the query operation enable you to do?

* ***All of the above***

1. Which AWS Cloud service is best suited for analyzing your data by using standard structured query language (SQL) and your existing business intelligence (BI) tools

* ***Amazon Redshift***

1. In Amazon DynamoDB, an attribute is\_\_\_\_\_\_\_\_.

* ***a fundamental data element***

1. Which of the following use cases is appropriate for using Amazon Relational Database Service (Amazon RDS)?

* ***Complex transactions***

1. A company has an application, which consists of a .NET layer that connects to a MySQL database. They want to move this application on to AWS and use AWS features such as high availability and automated backups. Which of the following would be an ideal database for this use case

* ***Amazon Aurora***

1. If you are developing an application that requires a database with extremely fast performance, fast scalability, and flexibility in the database schema, which service would you consider?

* ***Amazon DynamoDB***

1. True of false? Amazon RDS automatically patches the database software and backs up your database, storing the backups for a user-defined retention period and enabling point-in-time recovery

* ***True***

1. What should you consider when choosing database type?

* ***All of the above***

**MODULE 9**

1. Which of the following is not one of the four areas of the Performance Efficiency pillar of the AWS Well-Architected Framework?

* ***Tranceability***

1. Which of the following is a principle when designing cloud-based systems?

* ***Assume everything will fail***

1. Which of the following are pillars of the AWS Well-Architected Framework?  
   (Choose three)

* ***Security***
* ***Operational Excellence***
* ***Cost Optimization***

1. Which design principles are recommended when considering performance efficiency?  
   (Choose 2)

* ***Use serverless architecture***
* ***Democratize advanced technologies***

1. AWS Trusted Advisor provides insight regarding which five categories of an AWS account?

* ***Performance, cost optimization, security, fault tolerance, service limits***

1. The AWS Well-Architected Framework is organized into how many pillars?

* ***5***

1. After you move to the AWS Cloud, you want to ensure that the right security settings are put in place.Which online tool can assist in security compliance?

* ***AWS Trusted Advisor***

1. Which of the following is a measure of your system's ability to provide functionality when desired by the user?

* ***Reliability***

1. What is defined as the ability for a system to remain operational even if some of the components of that system fail?

* ***Fault Tolerance***

1. Which of the following best describes a system that can withstand some measures of degradation, experiences minimal downtime, and requires minimal human intervention

* ***Highly available***

**MODULE 10**

1. Which of the following AWS tools help your application scale up or down based on demand?

* ***Amazon EC2 Auto Scaling***
* ***Elastic Load Balancing***

1. Which service would you use to send alerts based on Amazon CloudWatch alarms?

* ***Amazon Simple Notification Service (Amazon SNS)***

1. Which of the following are characteristics of Amazon EC2 Auto Scaling?  
   Choose three

* ***Responds to changing conditions by adding or terminating instances***
* ***Launches instances from a specified Amazon Machine Image (AMI)***
* ***Enforces a minimum number of running Amazon EC2 instances***

1. Which of the following must be configured on an Elastic Load Balancing load balancer to expect incoming traffic

* ***A listener***

1. Which of the following elements are used to create an Amazon EC2 Auto Scaling launch configuration?

* ***Amazon Machine Image (AMI)  
  Instance type  
  Amazon Elastic Block Store (Amazon EBS) volumes***

1. Which of the following services can help you conflict important metrics from Amazon Relational Database Service (Amazon RDS) and Amazon Elastic Compute Cloud (Amazon EC2) instances?

* ***Amazon CloudTrail***

1. Which of the following are elements of an Auto Scaling group  
   (Choose three)

* ***Maximum size  
  Desired capacity  
  Minimum size***

1. There is an adult at your company and they need to have a big log of all access to AWS resources in the account. Which of the following services can assist in providing these details?

* ***AWS CloudTrail***

1. In Elastic Load Balancing, when the load balancing detects an unhealthy target, which of the following are true  
   (Choose three)

* ***Stops routing traffic to that target***
* ***Resumes routing traffic when it detects that the target is healthy again***
* ***Routes traffic to a healthy target***

1. What are the three types of load balancers that Elastic Load Balancing offers?  
   (Choose three)

* ***Application Load Balancer  
  Network Load Balancer  
  Classic Load Balancer***