* Who would you consider helping you with a new design and building a new project in AWS if you currently don’t have the necessary technical expertise?
  + AWS Partner Network Consulting Partners
    - The AWS Partner Network (APN) is the global partner program for technology and consulting businesses that leverage Amazon Web Services to build solutions and services for customers. The APN helps companies build, market, and sell their AWS offerings by providing valuable business, technical, and marketing support.
    - There are tens of thousands of APN Partners across the globe. More than 90% of Fortune 100 companies and the majority of Fortune 500 companies utilize APN Partner solutions and services.
* If you compare the costs in AWS versus a traditional on-premises data center, AWS is the better version because:
  + Lower Variable Costs and Lower Upfront costs
* Which of the following could be used in the order in order to track and categorize spending on a detailed level
  + Cost allocation tags
* Which of the following can be used in order to secure Identity and access management
  + Delete root access keys
  + Configure password strength policy and expiration date
  + Activate MFA
* YOu decide to create a backup of your running EC2 instance and move it to S3. Recently you have attended an AWS seminar and you learned that you can give EC2 the necessary permissions to access AWS S3 in order to perform this action automatically. What would you need to configure on Ec2 instances in order to facilitate this to happen?
  + Access Key ID and Secret Access Key
* AWS Cloud Platform is cost-effective for workloads with dynamic and always changing user demand which of the following features best match with the previous section
  + Pays as you go
  + Elasticity
* CloudWatch which of the following are features of Amazon Cloud Watch Logs
  + Data retention is adjustable as per your needs
  + Real-time monitoring
* You have just launced your own business and decided to run your website with AWS. Which of the following services will help you to host a static website in AWS
  + Amazon s3
* What are the AWS services and or tools that you can use in order to sestimate your monthly costs
  + AWS simple monthly calculator
  + AWS Total cost of ownership (TCO) calc
* Which of the following is a scalable, fully managed data warehousing solution in AWS
  + Amazon Redshift
* Where can you find AWS compliance documents such as SOC2 reports
  + AWS Artifiact
* Responsibility is shared between customers and AWS in the public cloud. Which of the following is the reponsibility of AWS
  + Amazon EC2 Hypervisor Security
* Which of the following AWS services can help you serve large amounts of online video content providing the lowest latency and best user experience
  + Amazon s3
  + Amazon Cloud Front
* If referring to AWS best practices, which of the following best aligns with the idea of designing a highly available architecture on AWS
  + Application is designed to accommodate failure of any single component
* YOu decide to migrate to aws your on-premises database but you want to choose a cutomer-managed relational database. Which of the4 following AWS service a help achieve your goal
  + Amazon EC2
* Which of the following are categories found in AWS Trusted Advisor
  + Performance
  + Fault Tolerance
  + Cost Optimization
* Which of the followin would yo ucheck when AWS encounters problems and you want to see if any of your AWS services are being impacted too
  + AWS Personal Health Dashboard
* Which of the following can be used in order to limit access to a S3 bucket on some specific users
  + IAM Policies
* Which AWS service would you choose in order to connect securely your on-premises DC with your workloads deployed in an AMAzon VPC
  + AWS VPN
* Which AWS services should be used for read/write of constantly changing data?
  + Amazon EFS
  + Amazon RDS
* You have been tasked to asses audit and evaluate configuraitons of you AWS resource you know that htere is one AWS service that can help you simplify compliance auditing securtity analysis change management and operational troubleshooting which AWS service would you choose
  + AWS Config
* Recently your organization has acquired another company, which is also using AWS. What AWS service would help you to consolidate and centrally manage these two AWS accounts now?
  + AWS Organizations
* Which of the following Reserved instances pricing models options provides you the highest savings over on-demand pricing model
  + Three Year, all upfront, standard RI pricing
* Which of the following IAM entities is associated with an access key ID and a secret access key when using AWS CLI
  + IAM User
* Which of the following definitions represents an AWS EBS
  + A virtual hard disk in Amazon
* Which of the following compliance certifications highlight that aws has met the standards required to store medical records in US
  + HIPAA
* What does authorization determine
  + Which AWS services has access to\
* What tool can display the distribution of AWS spending
  + AWS Cost Explorer
* Which AWS service would you choose for processing large data sets
  + Elastic Map Reduce
* Which of the following is a valid option for a user to log in to aws management console
  + Username and password
* Which of the following represents an advantage of having AWS cloud services accessible through an api?
  + Cloud resource can be managed programmatically
* Which of the following AWS service below could help you with cost optimization for your AWS infrastructure
  + AWS trusted advisor
* What AWS service could be consulted in order to get detail information on EC2 billing activity that took place 2 months ago
  + AWS cost and usage reports
* Which of the following design principles relate to performance efficiency
  + User serverless architectures when possible
  + Democratize advanced technologies as much as possible
  + Deploy your app in multiple regions to go global in minutes
* Why would you choose to run an application across two AZs
  + It increases the availability of the application as compared to running it in a single az
* Which of the following AWS support plans comes with response time less tan 4 hours in the even of an impaired production system
  + Business
* What does the AWS snowball provide:
  + Secure transfer of large amount of data into and out of the aws cloud
    - Snowball is a petabyte-scale data transport solution that uses devices designed to be secure to transfer large amounts of data into and out of the AWS Cloud. Using Snowball addresses common challenges with large-scale data transfers including high network costs, long transfer times, and security concerns. Customers today use Snowball to migrate analytics data, genomics data, video libraries, image repositories, backups, and to archive part of data center shutdowns, tape replacement or application migration projects. Transferring data with Snowball is simple, fast, more secure, and can be as little as one-fifth the cost of transferring data via high-speed Internet.
* What is the AWS service that enables AWS architects to manage infrastructure as code?
  + Cloud Formation
    - AWS CloudFormation is a service that helps you model and set up your Amazon Web Services resources so that you can spend less time managing those resources and more time focusing on your applications that run in AWS. You create a template that describes all the AWS resources that you want (like Amazon EC2 instances or Amazon RDS DB instances), and AWS CloudFormation takes care of provisioning and configuring those resources for you. You don't need to individually create and configure AWS resources and figure out what's dependent on what; AWS CloudFormation handles all of that.
* You have discovered that some AWS resources are being used in malicious activities that could compromise your data. What should you do?
  + Contact amazon abuse team
    - The AWS Abuse team can assist you when AWS resources are being used to engage in the following types of abusive behavior:
    - I. Spam: You are receiving unwanted emails from an AWS-owned IP address, or AWS resources are being used to spam websites or forums.
    - II. Port scanning: Your logs show that one or more AWS-owned IP addresses are sending packets to multiple ports on your server, and you believe this is an attempt to discover unsecured ports.
    - III. Denial of service attacks (DOS): Your logs show that one or more AWS-owned IP addresses are being used to flood ports on your resources with packets, and you believe this is an attempt to overwhelm or crash your server or software running on your server.
    - IV. Intrusion attempts: Your logs show that one or more AWS-owned IP addresses are being used to attempt to log in to your resources.
    - V. Hosting objectionable or copyrighted content: You have evidence that AWS resources are being used to host or distribute illegal content or distribute copyrighted content without the consent of the copyright holder.
    - VI. Distributing malware: You have evidence that AWS resources are being used to distribute software that was knowingly created to compromise or cause harm to computers or machines on which it is installed.
* Which of the following services allows you to manage your agreements with AWS?
  + AWS Artifact
    - AWS Artifact is a self-service audit artifact retrieval portal that provides our customers with on-demand access to AWS’ compliance documentation and AWS agreements. You can use AWS Artifact Reports to download AWS security and compliance documents, such as AWS ISO certifications, Payment Card Industry (PCI), and System and Organization Control (SOC) reports. You can use AWS Artifact Agreements to review, accept, and track the status of AWS agreements such as the Business Associate Addendum (BAA).
* Select TWO examples of the AWS shared controls.
  + Shared Controls are controls which apply to both the infrastructure layer and customer layers, but in completely separate contexts or perspectives. In a shared control, AWS provides the requirements for the infrastructure and the customer must provide their own control implementation within their use of AWS services.
    - Examples include:
    - \*\* Patch Management – AWS is responsible for patching the underlying hosts and fixing flaws within the infrastructure, but customers are responsible for patching their guest OS and applications.
    - \*\* Configuration Management – AWS maintains the configuration of its infrastructure devices, but a customer is responsible for configuring their own guest operating systems, databases, and applications.
    - \*\* Awareness & Training - AWS trains AWS employees, but a customer must train their own employees.
* Which of the following S3 storage classes is ideal for data with unpredictable access patterns?
  + The S3 Intelligent-Tiering storage class is designed to optimize costs by automatically moving data to the most cost-effective access tier, without performance impact or operational overhead. It works by storing objects in two access tiers: one tier that is optimized for frequent access and another lower-cost tier that is optimized for infrequent access. For a small monthly monitoring and automation fee per object, Amazon S3 monitors access patterns of the objects in S3 Intelligent-Tiering, and moves the ones that have not been accessed for 30 consecutive days to the infrequent access tier. If an object in the infrequent access tier is accessed, it is automatically moved back to the frequent access tier. There are no retrieval fees when using the S3 Intelligent-Tiering storage class, and no additional tiering fees when objects are moved between access tiers. It is the ideal storage class for long-lived data with access patterns that are unknown or unpredictable.
* In order to implement best practices when dealing with a “Single Point of Failure,” you should aim to build as much automation as possible in both detecting and reacting to failure. Which of the following AWS services would help? (Choose two)
  + You should aim to build as much automation as possible in both detecting and reacting to failure. You can use services like ELB and Amazon Route53 to configure health checks and mask failure by only routing traffic to healthy endpoints. In addition, Auto Scaling can be configured to automatically replace unhealthy nodes. You can also replace unhealthy nodes using the Amazon EC2 auto-recovery feature or services such as AWS OpsWorks and AWS Elastic Beanstalk. It won’t be possible to predict every possible failure scenario on day one. Make sure you collect enough logs and metrics to understand normal system behavior. After you understand that, you will be able to set up alarms that trigger automated response or manual intervention.
* What is the AWS database service that allows you to upload data structured in key-value format?
  + DynamoDB is AWS' NoSQL database offering. NoSQL databases are used for non-structured data that are typically stored in JSON-like, key-value documents.
* What are the benefits provided by the AWS Personal Health Dashboard? (Choose two)
  + AWS Personal Health Dashboard provides alerts and remediation guidance when AWS is experiencing events that may impact you. While the Service Health Dashboard displays the general status of AWS services, Personal Health Dashboard gives you a personalized view into the performance and availability of the AWS services underlying your AWS resources.
  + The benefits of the AWS personal health dashboard include:
  + \*\*A personalized View of Service Health: Personal Health Dashboard gives you a personalized view of the status of the AWS services that power your applications, enabling you to quickly see when AWS is experiencing issues that may impact you. For example, in the event of a lost EBS volume associated with one of your EC2 instances, you would gain quick visibility into the status of the specific service you are using, helping save precious time troubleshooting to determine root cause.
  + \*\*Proactive Notifications: The dashboard also provides forward looking notifications, and you can set up alerts across multiple channels, including email and mobile notifications, so you receive timely and relevant information to help plan for scheduled changes that may affect you. In the event of AWS hardware maintenance activities that may impact one of your EC2 instances, for example, you would receive an alert with information to help you plan for, and proactively address any issues associated with the upcoming change.
  + \*\*Detailed Troubleshooting Guidance: When you get an alert, it includes remediation details and specific guidance to enable you to take immediate action to address AWS events impacting your resources. For example, in the event of an AWS hardware failure impacting one of your EBS volumes, your alert would include a list of your affected resources, a recommendation to restore your volume, and links to the steps to help you restore it from a snapshot. This targeted and actionable information reduces the time needed to resolve issues.
* What are the security aspects that the AWS customer is responsible for? (Choose two)
  + The customer is responsible for protecting the network traffic by configuring Security Groups, Network Access control Lists (NACLs) and Routing Tables. The customer is also responsible for creating a password policy on their AWS account to specify complexity requirements and mandatory rotation periods for their IAM users' passwords. For example, setting a minimum password length, require specific character types, etc.

Inherited Controls – Controls which a customer fully inherits from AWS.

* Physical and Environmental controls

Shared Controls – Controls which apply to both the infrastructure layer and customer layers, but in completely separate contexts or perspectives. In a shared control, AWS provides the requirements for the infrastructure and the customer must provide their own control implementation within their use of AWS services. Examples include:

* Patch Management – AWS is responsible for patching and fixing flaws within the infrastructure, but customers are responsible for patching their guest OS and applications.
* Configuration Management – AWS maintains the configuration of its infrastructure devices, but a customer is responsible for configuring their own guest operating systems, databases, and applications.
* Awareness & Training - AWS trains AWS employees, but a customer must train their own employees.

Customer Specific – Controls which are solely the responsibility of the customer based on the application they are deploying within AWS services. Examples include:

* Service and Communications Protection or Zone Security which may require a customer to route or zone data within specific security environments.
* You have set up consolidated billing for several AWS accounts. One of the accounts has purchased a number of reserved instances for 3 years. Which of the following is true regarding this scenario?
  + For billing purposes, the consolidated billing feature of AWS Organizations treats all the accounts in the organization as one account. This means that all accounts in the organization can receive the hourly cost benefit of Reserved Instances that are purchased by any other account.
* Which service is used to ensure that messages between software components are not lost if one or more components fail?
  + Amazon Simple Queue Service (SQS) is a fully managed message queuing service that enables you to send, store, and receive messages between software components at any volume, without losing messages or requiring other services to be available. SQS lets you decouple application components so that they run independently, increasing the overall fault tolerance of the system. Multiple copies of every message are stored redundantly across multiple availability zones so that they are available whenever needed.
* An organization has a large number of technical employees who operate their AWS Cloud infrastructure. What does AWS provide to help organize them in teams and assign the required permissions for each team?
  + An IAM group is a collection of IAM users that are managed as a unit. Groups let you specify permissions for multiple users, which can make it easier to manage the permissions for those users. For example, you could have a group called Admins and give that group the types of permissions that administrators typically need. Any user in that group automatically has the permissions that are assigned to the group. If a new user joins your organization and needs administrator privileges, you can assign the appropriate permissions by adding the user to that group. Similarly, if a person changes jobs in your organization, instead of editing that user's permissions, you can remove him or her from the old groups and add him or her to the appropriate new groups.\
  + ***The other options are incorrect:***
  + ***"IAM role" is incorrect.*** An IAM role is an IAM identity that you can create in your account that has specific permissions. IAM roles allow you to delegate access (for a limited time) to users or services that normally don't have access to your organization's AWS resources. IAM users or AWS services can assume a role to obtain temporary security credentials that can be used to interact with specific AWS resources. You can use roles to delegate access to users, applications, or services that don't normally have access to your AWS resources. For example, you might want to grant users in your AWS account access to resources they don't usually have, or grant users in one AWS account access to resources in another account. Or you might want to allow a mobile app to use AWS resources, but not want to embed AWS keys within the app. Sometimes you want to give AWS access to users who already have identities defined outside of AWS, such as in your corporate directory. Or, you might want to grant access to your account to third parties so that they can perform an audit on your resources. For these scenarios, you can delegate access to AWS resources using an IAM role.
  + ***"IAM users" is incorrect.*** An IAM user is an entity that you create in AWS to represent the person or application that uses it to directly interact with AWS. A primary use for IAM users is to give people the ability to sign in to the AWS Management Console for interactive tasks and to make programmatic requests to AWS services using the API or CLI. A user in AWS consists of a name, a password to sign into the AWS Management Console, and up to two access keys that can be used with the API or CLI. When you create an IAM user, you grant it permissions by making it a member of a group that has appropriate permission policies attached (recommended), or by directly attaching policies to the user.
  + Additional information:
  + An IAM role is similar to an IAM user, in that it is an AWS identity with permission policies that determine what the identity can and cannot do in AWS. However, instead of being uniquely associated with one person, a role is intended to be assumable by anyone (or any service, application, ...etc) who needs it. Also, a role does not have standard long-term credentials such as a password or access keys associated with it. Instead, when you assume a role, it provides you with temporary security credentials for your role session. IAM roles are meant to be assumed by authorized entities, such as IAM users, applications, or an AWS service such as EC2.
* A company is planning to introduce a new product to their customers. They are expecting high traffic to their web application. As part of the Enterprise support plan, which of the following could provide them with architectural and scaling guidance?
  + AWS Infrastructure Event Management is a short-term engagement with AWS Support, included in the Enterprise-level Support product offering, and available for additional purchase for Business-level Support subscribers. AWS Infrastructure Event Management partners with your technical and project resources to gain a deep understanding of your use case and provide architectural and scaling guidance for an event. Common use-case examples for AWS Event Management include advertising launches, new product launches, and infrastructure migrations to AWS.
* What do you gain from setting up consolidated billing for five different AWS accounts under another master account?
  + AWS consolidated billing enables an organization to consolidate payments for multiple Amazon Web Services (AWS) accounts within a single organization by making a single paying account. For billing purposes, AWS treats all the accounts on the consolidated bill as one account. Some services, such as Amazon EC2 and Amazon S3 have volume pricing tiers across certain usage dimensions that give the user lower prices when they use the service more. For example if you use 50 TB in each account you would normally be charged $23 \*50\*3 (because they are 3 different accounts), But with consolidated billing you would be charged $23\*50+$22\*50\*2 (because they are treated as one account) which means that you would save $100.
* What does AWS provide to deploy popular technologies - such as IBM MQ - on AWS with the least amount of effort and time?
  + AWS Quick Start Reference Deployments outline the architectures for popular enterprise solutions on AWS and provide AWS CloudFormation templates to automate their deployment. Each Quick Start launches, configures, and runs the AWS compute, network, storage, and other services required to deploy a specific workload on AWS, using AWS best practices for security and availability.
  + Quick Starts are built by AWS solutions architects and partners to help you deploy popular technologies on AWS, based on AWS best practices. These accelerators reduce hundreds of manual installation and configuration procedures into just a few steps, so you can build your production environment quickly and start using it immediately.