Exam Questions and Answers with explanations for each topic

Which AWS services should be used for read/write of constantly changing data? (Choose two)
- Amazon Glacier
    - Used for data archiving
- **Amazon RDS**
    - Collection of managed services that makes it simple to set up operate and scale databases in the cloud
    - Removes inefficient and time consuming database admin tasks without needing to provision infrastructure or maintain software
    - Service that facilitates the process of setting up, maintaining, and scaling relational databases
- AWS snowball
    - Help move offline data or remote storage to the cloud
        - Vice versa
    - Physical device that is sent by amazon
- Amazon redshift
    - Used to analyse exabyte of data and run complex analytical queries
    - Data warehouse
- **Amazon EFS**
    - Elastic file system
    - Automatically grows and shrinks as you add and remove files with no need for management or provisioning

What is one of the advantages of Amazon RDS?
- **Simplifies relational database administration tasks**
- Provides 99.99% reliability and durability
    - S3 does this
- Automatically scales databases for loads
    - Amazon aurora
    - Amazon DynamoDB
- Enabled users to dynamically adjust cpu and ram resources

Customer needs to run a MySQL database that easily scales. Which AWS Service should they use?
- **Aurora**
    - Designed for high performance and availability at global scale with MySQL and PostgreSQL compatibility
- RedShift
    - Used to analyse exabyte of data and run complex analytical queries
    - Data warehouse
- DynamoDB

- Fully managed NoSQL database service that provides fast and predictable performance with seamless scalability
- ElastiCache
    - Fully managed in-memory data store and cache service by Amazon Web Services. The service improves the performance of web applications by retrieving information from managed in-memory caches, instead of relying entirely on slower disk-based databases

Which of the following components of AWS Global Infrastructure consists of one or more discrete data centres interconnected through low latency links?
- **Availability zone**
    - Consists of 1 or more data centres
- Edge location
    - Has caches that store temp data that will be used when customers request data
    - Aka point of presence
- Region
    - Just like NA, EU etc
    - Each region consists of 3 or more availability zones
- Private networking
    - Created using VPC

Which of the following is a shared control between the customer and AWS?
- Providing a key for Amazon s3 client-side encryption
    - Just Customer
    - On the cloud
- Configuration of an amazon ec2 instance
    - Just Customer
    - On the cloud
- **Awareness and training**
    - Both
- Environmental controls of physical data centres
    - Just AWS
    - Off the cloud

How many availability zones should compute resources be provisioned across to achieve high availability?
- Min of 1
- **Min of 2**
- Min of 3
- Min of 4 or more

What is an advantage to moving infrastructure from on premises data centres to the cloud?
- Eliminate IT bills
    - Pay as u go leading to reduced bills but not eliminated

- Allows business to put a server in each customer's data centre
    - Cannot provision data centres
- **Allows business to focus on business activities**
    - With the use of auto provisioning auto scaling serverless computing all these help with business focus more on other activities rather than managing servers, provisioning resources, worrying about storage etc
- Allows business to leave servers unpatched
    - Still need to update etc for better features, security and more

What is the lowest-cost, durable storage option for retaining database backups for immediate retrieval?
- **S3**
    - Cheapest
    - Can be accessed from anywhere
    - Object storage
- Glacier
    - Used for archival storage
- EBS
    - Persistent block level data storage
    - More expensive than s3
    - Faster than s3
    - High Input/output operations
    - Only available in a particular region
- Ec2 instance store
    - Temporary storage, data will be gone after ec2 instance is stopped

Which is a fast and reliable NoSQL database service?
- Redshift
- RDS
- **DynamoDB**
- S3

Example of agility in the AWS Cloud?
- Access to multiple instance types
- Access to managed services
- Using consolidated Billing to produce one bill
- **Decreased acquisition time for new compute resources**

Which Service should a customer use to consolidate and centrally manage multiple AWS accounts?
- IAM
    - Used to manage user access
    - Manages who or what can access services and resources in AWS
- **Organisations**

- Used to create new AWS accounts at no additional charge
- Allocate resources, group accounts, and apply governance policies to accounts or groups
- Schema conversion tool
  - Automatically converts the source database schema and a majority of the database code objects, including views, stored procedures, and functions, to a format compatible with the target database
- Config
  - Continually assesses, audits, and evaluates the configurations and relationships of your resources

What approach to transcoding a large number of individual video files adheres to AWS architecture
- **Many instances in parallel**
- Use single large instance during off-peak hours
- Dedicated hardware
- Large GPU instance type
  - Should be done for AI, Machine learning, etc

Which auditing process does AWS have sole responsibility?
- AWS IAM policies
  - Customer does this
- **Physical security**
  - AWS does this
- Amazon s3 bucket policies
  - Customer does this
- Aws Cloudtrail logs
  - Customer does this

Which feature of the AWS cloud will support an international company's requirement for low latency to all of its customers?
- Fault tolerance
- **Global reach**
- Pay as you go pricing
- High availability

Which of the following is customer's responsibility under the AWS shared responsibility model
- Physical security
- Patching underlying infrastructure
- **Patching EC2 instances**
- Patching network infrastructure

How can customer take advantage of volume discounts with minimal impact to AWS resources
- Create one global AWS account and move all AWS resources to that account
- Sign up for 3 years of Reserved instance pricing up front
- **Use consolidated billing feature from AWS Organisations**
- Sign up for AWS enterprise support plan to get volume discounts

Which of the following are features of Amazon CloudWatch logs? (Choose two)
- Summaries by Amazon SNS
    - Used to send notifications and not a feature of cloudwatch
- Free amazon elasticsearch service analytics
- Provided at no charge
    - Cloud watch has charges
- **Real-time monitoring**
- **Adjustable retention**

Which of the following is an AWS managed Domain Name System (DNS) web service?
- **Amazon Route 53**
    - Route end users to internet applications
    - It is a DNS web service
    - Connects user requests to internet applications running on AWS or on-premises
- Neptune
    - Fully managed database service built for the cloud that makes it easier to build and run graph applications
    - provides built-in security, continuous backups, serverless compute, and integrations with other AWS services
    - Serverless graph database designed for superior scalability and availability
- SageMaker
    - Build, train and deploy machine learning models for any use case with fully managed infrastructure, tools and workflows
- Lightsail
    - Build applications and websites fast with low-cost, preconfigured cloud resources
    - Offers easy to use virtual private server instances, containers, storage, databases, and more at a cost-effective monthly price

Which of the following factors could influence customer decision to choose the AWS region? (Choose Two)
- **Reduced latency to users**
- Applications presentation in the local language
- **Data sovereignty compliance**
    - the understanding that data which are stored outside of an organisation's host country and still subject to the laws in the country where the data are stored

- Cooling costs in hotter climates
- Proximity to customer's office for on-site visits

Which storage service can be used as a low-cost option for hosting static websites?
- Glacier
- DynamoDB
- EFS
- **S3**

Which EC2 instance pricing model can provide discounts of up to 90%
- Reserved instances
    - Provides a billing discount over on-demand pricing
    - Requires 1-year or 3-year term commitment
    - Up to 75% off
    - Can be upfront, partial, no upfront
- On-demand
    - Ideal for short-term irregular workloads
    - Better for no interruptions
    - No upfront costs or minimum contracts
    - Pay for compute capacity by the second with full control of its lifecycle
- Dedicated hosts
    - Most expensive
    - Its a physical server with EC2 instance capacity for a single customer
- **Spot instances**
    - Ideal for workloads with flexible start and end times
    - Up to 90% off
    - Better for interruptions

Web servers running EC2 access a legacy application running in a corporate data centre. What term would you describe this model?
- Cloud-native
    - Fully cloud based solution
- Partner network
    - A global community of partners that leverages programs, expertise, and resources to build, market, and sell customer offerings
- **Hybrid Architecture**
- Infrastructure as a service
    - A business model that delivers IT infrastructure like compute, storage, and network resources on a pay-as-you-go basis over the internet

What is the benefit of using AWS managed services such as Elasticache and RDS
- They require customer to monitor and replace failing instances
    - RDS and Elasticache don't have instances
- **They have better performance than customer-managed services**
- They simplify patching and updating underlying OSs

- No OSs for these services
- They do not require the customer to optimise instance type or size selections
    - Don't have instances so don't have to pick type or size

Which service provides a virtually unlimited amount of online highly durable object storage?
- Redshift
    - Data Warehouse
    - Used to analyse exabyte of data and run complex analytical queries
- Elastic File system
    - Used for retrieval and storing of files
    - Has limited storage
- ECS
    - Container service for docker
    - fully managed container orchestration service that makes it easy for you to deploy, manage, and scale containerized applications
- **S3**
    - Object storage
    - Unlimited storage

Which of the following IAM entities is associated with an access key ID and secret key when using AWS CLI?
- IAM Group
    - Collection of IAM users
- **IAM user**
    - Has credentials and permissions
- IAM role
    - Identity that you can create that has specific permissions
    - Similar to user but differs in the fact that there are not credentials associated with it
- IAM policy
    - Define permissions for an action regardless of the method that you use to perform the operation

Which of the following security related services does AWS offer? (Choose two)
- Multi-factor authentication physical tokens
- **AWS trusted advisor security checks**
- **Data encryption**
- Automated penetration testing
- Amazon S3 copyrighted content detection

Which AWS managed service is used to host databases?
- **RDS**
- Batch
    - run hundreds of thousands of batch and ML computing jobs while optimising compute resources, so you can focus on analysing results and solving problems
- Artifact
    - provides on-demand access to AWS' security and compliance reports and select online agreements
- Data pipeline
    - helps you reliably process and move data between different AWS compute and storage services, as well as on-premises data sources, at specified intervals

Which AWS service provides a simple and scalable shared file storage solution for use with Linux based AWS and on-premise servers?
- S3
- Glacier
- EBS
    - Amazon Elastic Block Store (Amazon EBS) is an easy-to-use, scalable, high-performance block-storage service designed for Amazon Elastic Compute Cloud (Amazon EC2).
- **EFS**

When architecting cloud applications, which of the following are a key design principle?
- Use the largest instance possible
- Provision capacity for peak load
- Use the scrum development process
- **Implement elasticity**

Which service should be used for long-term, low-cost storage of data backups?
- RDS
- **Glacier**
- Snowball
- EBS

Under the shared responsibility model, which of the following is a shared control between customer and AWS?
- Physical controls
- **Patch management**
- Zone security
- Data centre auditing

Which service allows companies to connect an Amazon VPC to an on-premises data centre?
- AWS VPN
    - Connect your on-premises networks and remote workers to the cloud
- Redshift
- Gateway
- **Direct connect**

Which service would help a company reduce the physical compute footprint that developers use to run code by enabling serverless architecture?
- EC2
    - Not serverless
- DynamodB
    - Serverless but its a database
- CodeCommit
    - Hosts private git repositories
    - Source control service that hosts secure git based repositories
- **Lambda**

Which task is AWS responsible for in the shared responsibility model for security and compliance?
- Granting access to individuals and services
    - IAM therefore customer responsibility
- Encrypting data in transit
    - Both since if its client side or server side
- **Updating EC2 host firmware**
    - Due to it being "HOST firmware" it is AWS responsibility
- Updating OS
    - On the cloud therefore customer responsibility

Where should a company go to search software listings from independent software vendors to find, test, buy and deploy software that runs on AWS?
- **Marketplace**
- Lumberyard
- Artifact
- Cloud search
    - Service in the AWS Cloud that makes it simple and cost-effective to set up, manage, and scale a search solution for your website or application

Which of the following is a benefit of using the AWS cloud?
- Permissive security removes administrative burden
- **Ability to focus on revenue generating activities**
- Control over cloud network hardware
- Choice of specific cloud hardware vendors

When performing a cost analysis that supports physical isolation of a customer workload, which compute hosting model should be accounted for in the total cost ownership (TCO)?
- **Dedicated hosts**
- Reserved instances
- On-demand instances
- No upfront reserved instances

Which Service provides the ability to manage infrastructure as code
- **Cloud formation**
    - service that helps you model and set up your AWS resources so that you can spend less time managing those resources and more time focusing on your applications that run in AWS
- Direct connect
    - service allows companies to connect an Amazon VPC to an on-premises data centre
- Code deploy
    - service that automates code deployments to any instance, including Amazon EC2 instances and instances running on-premises
- Code pipeline
    - a continuous delivery service you can use to model, visualise, and automate the steps required to release your software

Which service is used to audit the change management of AWS resources?
- **Config**
    - continually assesses, audits, and evaluates the configurations and relationships of your resources.
- Cloud watch
    - Monitor metrics
    - collects and visualises real-time logs, metrics, and event data in automated dashboards to streamline your infrastructure and application maintenance.
- Inspector
    - service that continually scans AWS workloads for software vulnerabilities and unintended network exposure.
- Trusted advisor
    - provides recommendations that help you follow AWS best practices

Which service allows a company with multiple AWS accounts to combine its usage to obtain volume discounts?
- Server migration service
- **Organisations**

- Budgets
- Trusted advisor

Which service makes use of edge locations?
- Outposts
    - Used for hybrid architecture
    - extends AWS infrastructure, AWS services, APIs, and tools to virtually any datacenter, co-location space, or on-premises facility for a
    - truly consistent hybrid experience
- **Global accelerator**
    - AWS Global Accelerator helps bridge the gap between single and multiple Region deployments by improving the network routing for local and global user traffic
- Aurora
    - SQL database
- Connect
    - With Amazon Connect, you can set up a contact centre in minutes that can scale to support millions of customers.

Which of the following AWS capabilities allows a user to deploy an EC2 instance that has already been configured?
- **Amazon machine image**
    - is a supported and maintained image provided by AWS that provides the information required to launch an instance
    - You can launch multiple instances from a single AMI when you require multiple instances with the same configuration
- EBS
- Ec2 systems manager
    - AWS Systems Manager is a secure end-to-end management solution for hybrid cloud environments
- Appstream
    - Secure, reliable, and scalable access to applications and non-persistent desktops from any location

A business wants to send its traffic directly and confidentially to VPC rather than through the public internet. Which mode of connection enables this capability?
- AWS VPN
    - Connect your on-premises networks and remote workers to the cloud
- **Direct connect**
- NAT gateway
    - You can use a NAT gateway so that instances in a private subnet can connect to services outside your VPC but external services cannot initiate a connection with those instances.
- VPC internet gateway

Which service enables you to swiftly conduct one-time queries on Amazon S3 data
- EMR
    - Amazon EMR is the industry-leading cloud big data solution for petabyte-scale data processing, interactive analytics, and machine learning using open-source frameworks such as Apache Spark, Apache Hive, and Presto.
- DynamoDB
- Redshift
- **Athena**
    - Amazon Athena is an interactive query service that makes it easy to analyse data in Amazon S3 using standard SQL. Athena is serverless, so there is no infrastructure to manage, and you pay only for the queries that you run.

Which service or functionality involves the implementation of an ISP and colocation facility?
- **Direct connect**
- Connect
- VPN
- Internet gateway

Which cloud architectural design concepts are advised for re-architecting a huge monolithic application? (Select two)
- Use manual monitoring
- Use fixed servers
- **Implement loose coupling**
- Reply on individual components
- **Design for scalability**

What can be utilised to automate and manage AWS setups that are safe, well-architectured, and multi-account?
- AWS shared responsibility model
    - Just discusses what aws is responsible for which is mainly off the cloud and what customers are responsible for which is on the cloud
- **AWS control tower**
    - Provides the easiest way to setup and govern a secure, multi-account AWS environment called a landing zone
    - Simplifies AWS experiences by orchestrating multiple AWS services on your behalf while maintaining the security and compliance needs of your organisation.
- AWS Security hub
    - AWS Security Hub is a cloud security posture management service that performs security best practice checks, aggregates alerts, and enables automated remediation.
- AWS Well-architectured tool

- The AWS Well-Architected Tool is designed to help you review the state of your applications and workloads against architectural best practices, identify opportunities for improvement, and track progress over time.

Which AWS hybrid storage offering allows users to effortlessly integrate on-premises applications with AWS cloud storage?
- Backup
    - AWS Backup is a cost-effective, fully managed, policy-based service that simplifies data protection at scale
- Connect
- Direct connect
- **Storage gateway**
    - Provides on-premises applications with access to virtually unlimited cloud storage

A user needs to prepare a report that summarizes the status of AWS account's major security checks. The report must contain the following:

⊏⊸ Permissions on Amazon S3 buckets are now inactive.

⊏⊸Whether or not multi-factor authentication is enabled for the root user of the AWS account.

⊏⊸If any security groups are set to enable unlimited access, this will be shown.

- Amazon quicksight dashboard
    - Allows everyone in your organisation to understand your data by asking questions in natural language
    - Exploring through interactive dashboards, or automatically looking for patterns and outliers powered by machine learning
- AWS CloudTrail trails
    - Tracks user activity and API usage
    - Monitors and records account activity across your AWS infrastructure giving you control over storage, analysis and remediation actions
- **AWS Trusted Advisor Report**
- IAM credential report
    - Lists all users in your account and the status of their various credentials including passwords, access keys, and MFA devices

To prevent fraudulent compute activity, a user needs a simple method to detect whether any EC2 instances have unlimited access to their ports. Which service will meet this requirement
- VPC Flow logs
    - Enables you to capture info about the ip traffic going to and from network interfaces in your VPC
- AWS WAF
    - helps you protect against common web exploits and bots that can affect availability, compromise security, or consume excessive resources
- AWS Cloud trail

- AWS CloudTrail monitors and records account activity across your AWS infrastructure, giving you control over storage, analysis, and remediation actions
  - **AWS Trusted Advisor**
    - Help identify ways to optimise your aws infrastructure, improve security and performance, reduce costs, and monitor service quotas

Which service is a content delivery network that safely and quickly distributes data, video, and apps to consumers worldwide?
- AWS cloud formation
- Direct connect
- **CloudFront**
  - Amazon CloudFront is a content delivery network (CDN) service built for high performance, security, and developer convenience.
- Amazon Pinpoint
  - Amazon Pinpoint offers marketers and developers one customizable tool to deliver customer communications across channels, segments, and campaigns at scale

A business is relocating and needs an encrypted connection to AWS. Which service will assist you in fulfilling this requirement?
- **AWS VPN**
- Amazon API gateway
  - Amazon API Gateway is a fully managed service that makes it easy for developers to create, publish, maintain, monitor, and secure APIs at any scale
  - Acts as the "front door" for applications to access data, business logic, or functionality from your backend services
- Amazon connect
- Amazon Route 53

A major corporation has a workload that demands on-premises hardware. The organisation wants to continue using the same management and control plane services as it does on AWS. Which server should the business employ to achieve these requirements?
- Device Farm
  - Improves the quality of your web and mobile applications by testing across desktop browsers and real mobile devices hosted in the cloud
- Fargate
  - Serverless compute for containers
- **Outposts**
- Ground station
  - Easily control satellites and ingest data with fully managed ground station as a service

A business operates an ecommerce application that is hosted in Europe. To reduce latency for international customers accessing the website the firm would want to cache frequently viewed static information closer to consumers. Which service should they use?
- Elasticache
    - Not used for content caching
- **CloudFront**
    - Delivers content through worldwide network of data centres called edge locations
- EFS
- EBS

Which service should be used to transmit, save, and receive messages across its components with these communications being processed in FIFO sequence.
- AWS step functions
- Amazon Simple notification service
- Amazon kinesis Data streams
- **Amazon Simple queue service**

What is the function of a VPC's internet gateway
- To create a VPN connection to the VPC
- **To allow communication between the VPC and the internet**
- To impose bandwidth constraints on internet traffic
- To load balance traffic from the internet across Amazon EC2 instances

On AWS, a corporation is constructing a new archiving system capable of storing terabytes of data. The firm will NOT often retrieve the data. Which S3 storage type will result in the lowest system cost
- **S3 glacier**
- S3 Standard-Infrequent Access
- S3 Intelligent-Tiering
- S3 One Zone-Infrequent Access

Which of the following best describes the root user of an AWS account?
- The root user is the only user that can be configured with MFA
- The root user is the only user that can access the AWS management console
- **The root user is the first sign-in identity that is available when an AWS account is created**
- The root user has a password that cannot be changed

The AWS IAM recommended practice for providing the fewest possible privileges is as follow
- Apply an IAM policy to an IAM group and limit the size of the group
- Require MFA for all IAM users
- Require each IAM user who has different permissions to have multiple passwords
- **Apply an IAM policy only IAM users who require it**

How should a web application be deployed in the AWS cloud to guarantee high availability?
- **Deploy multiple instances of the application in multiple Availability Zones**
- Deploy multiple instances of the application in single Availability Zones
- Deploy the application to one compute-optimised Amazon EC2 instance in a single availability Zone
- Deploy the application in one EC2 instance in an autoscaling group

Which security best practices should be adhered to when a new developer requires AWS credentials?(Select two)
- **Grant the developer access to only the AWS resources needed to perform the job**
- Share the AWS account root user credentials with developer
- Add developer to the admin group in AWS IAM
- Configure a password policy that ensures the developers password cannot be changed
- **Ensure the account password policy requires min length**

Which is the most cost effective aws service that should be used when a company wants to move a 500TB image repository to AWS for processing?
- **Snowball**
- Direct Connect
- VPN
- S3

What is an AWS Cloud best practice in terms of design?
- Tight coupling of components
- Single point of failure
- Over Provisioning of resources
- **High availability**

A workload hosted on AWS will continue to operate indefinitely by using a steady number of EC2 instances. Which pricing strategy will decrease costs while assuring the availability of computational resources?
- Dedicated Hosts
    - Too expensive
- On-Demand instances
    - Better for irregular workloads

- Spot instances
    - Can be taken back by AWS
- **Reserved instances**
    - Gives discounts of up to 75% and requires 1 or 3 year commitment

What are the advantages of using loose coupling as a design paradigm for cloud architectures
- It facilitates low-latency request handling
- It allows applications to have dependent workflows
- **Prevents cascading failures between different components**
- Allows companies to focus on their physical data centre operations

What is an Example of Cloud Agility?
- Access to multiple instance types
- Access to managed services
- Using consolidated billing to produce one bill
- **Decreased acquisition time for new compute resources**

A company operates a website hosted on AWS and is protected by an Application Load balancer. The business wishes to protect its website against SQL injection and cross site scripting. Which service should be used?
- GuardDuty
    - Helps with threat detection related to unauthorised activity
- **WAF (Web application Firewall)**
    - Look for keywords like SQL injection, Cross site scripting
- Trusted Advisor
- Inspector

Which service should be used when a company wants to establish a phone number that would enable it to handle the growing amount of calls received by its support employees
- **Connect**
- CloudFront
- Direct connect
- Trusted advisor

Which service should be used to evaluate streaming user data and reply in real time to consumer inquiries
- QuickSight
- Redshift
- **Kinesis data analytics**
    - Easily collect process and analyse video and data streams in real time
- Data pipeline

A customer with an AWS basic support sub has discovered that their AWS resources are being used for unauthorised purposes. What is the preferred mechanism for the user to notify AWS of the activity?
- Contact the AWS concierge support team
- Contact an AWS technical account manager
- **Contact the AWS abuse team**
    - Contacted when you suspect AWS resources are used for abusive or illegal purposes
    - Examples: spam, port scanning, DOS attacks, intrusion attempts, hosting prohibited content
- Contact the AWS support team

Which pattern is suggested for creating an AWS highly available architecture?
- Ensure that components have low latency network connectivity
- Run enough EC2 instances to operate at peak load
- **Ensure that the application is designed to accommodate failure of any single component**
- Use a monolithic application that handles all operations

A company currently operates an on-premises SQL server instance and is transferring its application to AWS. Although the firm lacks the resources necessary to modify the program, management wants to cut operating costs as part of the move. Which database service is most capable of meeting these requirements?
- DynamoDB
- RedShift
- SQL server on EC2
- Amazon RDS for SQL server
    - Cheaper than having SQL server on EC2 instance

Which service enables dynamic resource adjustment in response to change in demand?
- Cloud trail
- **EC2 auto scaling**
- Forecast
    - Forecasts business outcomes easily and accurately using machine learning
- Config

What enables a business to give low-latency experience to its worldwide users?
- Using an AWS region that is central to all users
- Using a second availability zone in the AWS region that is used
- **Using edge locations to put content closer to all users**
- Enabling Caching in the AWS region that is being used

Which cost management best practice does increasing efficiency and minimising cost demonstrate?
- Resource controls
- Cost allocation
- **Architecture optimization**
- Tagging enforcement

Which of the following is a duty of the client under the AWS shared responsibility model
- Virtualization infrastructure
- Network infrastructure
- Physical security of hardware
- **Application security**

Which strategy contributes to the cost optimization of consumers migrating to the Cloud?
- **Paying only for what is used**
- Purchasing hardware before it is needed
- Manually provisioning cloud resources
- Purchasing for maximum possible load

Which AWS service can be used to monitor illegal API calls?
- Config
- **CloudTrail**
- Trusted Advisor
- Inspector

What is the name given to several, separate sites inside an AWS region that are linked by low-latency networks?
- AWS direct connects
- VPCS
- **Availability zones**
- Edge locations

Which EC2 price option is appropriate for applications that need intermittent, spiky, or unexpected workloads?
- Spot instances
    - Better for flexible start and end times
    - Predictable workloads cause you don't know when you will lose your instance
- Dedicated hosts
- Reserved instances
- **On-demand instances**

Which of the following Service can be utilised to efficiently deliver big volumes of online video content (Select two)
- Storage gateway
- **S3**
- EFS
- Glacier
- **Cloud front**
    - Amazon CloudFront is a content delivery network (CDN) service built for high performance, security, and developer convenience.

Which service enables clients to acquire unused EC2 capacity at often reduced prices?
- **Spot**
- Dedicated
- On-Demand
- Reserved

Which of the following procedures should a client perform while doing penetration testing on AWS
- Conduct penetration testing using Amazon Inspector, and then notify AWS support
    - Not used for penetration testing
- **Request and wait for approval from AWS support and then conduct testing**
- Notify AWS support, and then conduct testing immediately
- Request and wait for approval from the customer's internal security team and then conduct testing
    - Not conducting test on customers data centres

Which service would be responsible for network connection in a hybrid design that incorporates AWS?
- VPC
- **Direct Connect**
- Api gateway
- Directory service
    - Enables your directory aware workloads and AWS resources to use managed active directory in AWS

Which AWS cloud feature enables resource supply to be matched to changing workload demands?
- **Elasticity**
- High availability
- Reliability
- Security

Which activities may assist in lowering operating expenses associated with migration? (Select two)
- **Reduce overprovisioned instances**
- Rehost all 3rd party licence on AWS
- Implement a highly available architecture
- Improve application security
- **Use managed services**

Which element in S3 bucket policy contains information about users who need access to the bucket?
- **Principle**
    - Specifies the user, account, service, or other entity that is allowed or denied access to a resource
- Action
    - A set of permissions that you can specify in a policy
    - Allows the actions of creating bucket, list bucket, etc
- Resource
    - Is the ARN (amazon resource name)
    - Contains the following
        - Partition: aws is a common partition name
        - Service: for s3 its s3
        - Relative ID: bucket name or bucket name/object key
- Statement
    - All above are created within the statement tag

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Sid": "statement1",
            "Effect": "Allow",
            "Principal": {
                "AWS": "arn:aws:iam::12345678901:user/Dave"
            },
            "Action": [
            "s3:PutObject",
            "s3:PutObjectAcl"
            ],
            "Resource": "arn:aws:s3:::awsexamplebucket1/*"
        }
    ]
}
```
    -

How can consolidated billing benefit a business with many AWS accounts?
- **It aggregates usage across accounts so that the company can reach volume discount thresholds sooner**
- It offers an additional 5% discount on purchases of all upfront reserved instances
- Provides a simplified billing invoice that the company can process more quickly than a standard invoice
    - Not as beneficial as correct answer
- Gives AWS resellers the ability to bill their customers for usage

AWS's pay as you go pricing model helps with what?
- **Reduces capital expenditures**
- Requires payment upfront for AWS services
- Is relevant only for EC2, S3, RDS
- Reduces operational expenditures

What feature relates to a customer's flexibility to scale up and down applications to meet changeable demand?
- Elasticity
- Agility
- Security
- **Scalability**

A customer requests advice on potential cost reductions associated with the migration from on-premises to AWS. Which tool is most appropriate in this situation?
- AWS budgets
    - Helps set custom budgets to track your costs and usage, and respond quickly to alerts received from email or SNS notifications
- Cost explorer
    - Helps visualise, understand, and manage your AWS costs and usage over time
- **AWS total cost of ownership calculator**
- AWS well-architected tool

Which AWS services or functionalities enable customers to establish a network connection between two VPCs (Select two)?
- VPC endpoints
- Route 53
- **VPC peering**
    - Networking connection between 2 VPCS that enables you to route traffic between them using private ipv4 or ipv6 addresses
- AWS direct connect
- **AWS transit gateway**
    - Connects your VPCS and on-premise networks through a central hub

- Can route all traffic to and from each VPN or thousands of VPCs with one place to manage and monitor it all

Which of the following is a recommended method for setting IAM user policies?
- Start with a large set of permissions and remove the permissions that are not required
- Use only amazon managed policies
- **Start with a min set of permissions and grant additional permissions as necessary**
- Attach policies directly to each user individually

Which service notify customers when AWS cloud expenses or usage surpass certain limits?
- **Budges**
- Cost explorer
- Cloud trail
- Macie
    - Amazon Macie is a data security and data privacy service that uses machine learning (ML) and pattern matching to discover and protect your sensitive data.

Which AWS service functionality may be utilised to monitor changes to AWS resource configurations for compliance purposes?
- Cost and usage report
- Organisations service control policies
    - Manage and organise your accounts under a single bill
    - Set central policies and configuration requirements for your entire organisation
- VPC flow logs
    - Enables you to capture information about IP traffic going to and from network interfaces in your VPC
- **Config rules**
    - Provides detailed view of the configuration of AWS resources in your account

Which of the following price options would result in the highest reduction after making an EC2 dedicated host reservation?
- No upfront payment
- Hourly on-demand payment
- Partial upfront payment
- **All upfront payment**

Which server and/or features increase availability and mitigate the effect of failures while constructing a typical 3-tier web application (Select two)
- **AWS auto scaling for EC2 instances**
- VPC subnet ACLs to check the health of a service
- **Distributed resources across multiple availability Zones**
- AWS server migration service to move EC2 instances to a different region
- Distributed resources across multiple AWS points of presence

Which of the following IT responsibilities may AWS relieve a company's IT team of? (Select two)
- **Patching database software**
- **Storage capacity planning**
- Creating database schemas
- Setting up access controls for data
- Writing application data

What is a unique advantage that Enterprise support customers receive? - https://aws.amazon.com/premiumsupport/plans/
- Access to a technical project manager
- **Access to a technical account manager**
    - With enterprise support you get 24/7 technical support to manage the health of your environment
- Access to a cloud support engineer
    - Not unique to enterprise customers
- Access to a solutions architect

What are the advantages of AWS cloud elasticity?
- Ensure web traffic is automatically spread across multiple AWS regions
- Minimise storage costs by automatically archiving log data
- Enable AWS to automatically select the most cost-effective services
- **Automatically adjust the required compute capacity to main consistent performance**

Which of the following are capabilities of the AWS cost management tools? (Select two)? https://docs.aws.amazon.com/cost-management/latest/userguide/what-is-costmanagement.html
- Terminate all AWS resources automatically if budget thresholds are exceeded
- **Break down AWS costs by day, service, and linked AWS account**
    - Cost explorer
- **Create budgets and receive notifications if current of forecasted usage exceeds the budgets**
    - AWS budgets
- Switch automatically to reserved instances or spot instances whichever is most cost effective
- Move data stored in S3 to more a cost effective storage class

Which cost components should be addressed when developing a cloud TCO model for AWS workloads? (Select three)
- **Compute costs**
- Facilities costs
- **Storage costs**
- **Data transfer costs**
- Network infrastructure costs
- Hardware lifecycle costs

How should an EC2 instance be granted access to S3 bucket in accordance with security best practices?
- Hard code IAM user's secret key and access key directly in the application, and upload the file
- Store the IAM user's secret key and access key in a text file on the EC2 instance, read the keys then upload the file
- **Have the EC2 assume a role to obtain the privileges to upload the file**
- Modify the S3 bucket policy so that any service can upload to it at any time

Which cloud architectural concept is supported by a system that can scale in terms of users, traffic, or data quantity without sacrificing performance?
- Think parallel
- **Implement elasticity**
- Decouple your components
- Design for failure

The following describes an application that spans various AZ:
- **Being highly available**
- Having global reach
- Using economy of scale
- Having elasticity

Which of the following is not a duty of the client under the AWS shared responsibility model? (Select two)
- **Decommission of physical storage devices**
- Security group and ACL configuration
- Patch management of an AMazon RDS instance operating system
- **Controlling physical access to data centres**
- Patch management of an EC2 instance operating system

What attributes of an AWS account can AWS trusted advisor monitor and advise on? (Select two)
- **Compliance with security best practices**
- Application performance
    - Helps with performance of services not application
- Compliance status
- Network utilisation
- **Cost optimization**

Cost Optimization	Performance	Security	Fault Tolerance	Service Limits
0☑ 9⚠ 0ⓘ	3☑ 7⚠ 0ⓘ	2☑ 4⚠ 11❗	0☑ 15⚠ 5❗	37☑ 0⚠ 1❗
$7,516.85 Potential monthly savings				

-

Which feature enables EC2 instances to be more elastic in response to changing workload demand?
- **Virtualization Management**
- Hardware management
- Encryption management
- Facilities management
- Firewall management

Which of the following AWS services should a client utilise to audit the change management of AWS resources?
- **AWS config**
- AWS trusted advisor
- Amazon cloud watch
- Amazon inspector

What is raised when a business deploys web servers across several AWS regions?
- Coupling
- **Availability**
- Security
- Durability

According to the AWS shared responsibility model, which job is shared between AWS and the customer?
- Physical and environmental controls
- Application security
- Server hardware management and encryption
- **Patch management and configuration management**

How should an application be created to function on the AWS cloud in accordance with best practices?
- Use tightly coupled components
- **Use loosely coupled components**
- Use infrequently coupled components
- Use frequently coupled components

Which of the following services could be used to deploy an application to servers running on-premises? (Choose two)
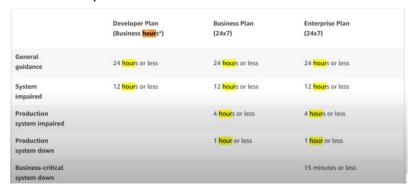- AWS elastic beanstalk
    - AWS Elastic Beanstalk deploys web applications so that you can focus on your business
- **OpsWorks**
    - AWS OpsWorks is a configuration management service that provides managed instances of Chef and Puppet.
    - Chef and Puppet are automation platforms that allow you to use code to automate the configurations of your servers
    - OpsWorks lets you use Chef and Puppet to automate how servers are configured, deployed, and managed across your Amazon EC2 instances or on-premises compute environments
- **Code deploy**
- Batch
- X-ray
    - AWS X-Ray provides a complete view of requests as they travel through your application and filters visual data across payloads, functions, traces, services, APIs, and more with no-code and low-code motions

Which is the minimum AWS support plan that allows for one-hour target response time for support cases?
- Developer
- Basic
- **Business**
- Enterprise

	Developer Plan (Business hours*)	Business Plan (24x7)	Enterprise Plan (24x7)
General guidance	24 hours or less	24 hours or less	24 hours or less
System impaired	12 hours or less	12 hours or less	12 hours or less
Production system impaired		4 hours or less	4 hours or less
Production system down		1 hour or less	1 hour or less
Business-critical system down			15 minutes or less

Where can AWS compliance and certification reports be downloaded?
- **AWS artifact**
- Trusted advisor
- Concierge
- Certificate manager
    - Use AWS Certificate Manager (ACM) to provision, manage, and deploy public and private SSL/TLS certificates for use with AWS services and your internal connected resources

Which of the following is an advantage of consolidated billing on AWS?
- **Volume pricing qualification**
- Shared access permissions
- Multiple bills per account
- Eliminates need for tagging

How would an AWS customer easily apply common access controls to a large set of users?
- **Apply IAM policy to IAM group**
- Apply IAM policy to IAM role
- Apply the same IAM policy to all IAM users with access to the same workload
- Apply IAM policy to an Amazon Cognito user pool

What technology enables compute capacity to adjust as load changes?
- Load balancing
- Automatic failover
- Round robin
- **Auto scaling**

Which AWS services are defined as global instead of regional (Choose two)
- **Route 53**
- EC2
- S3
- **Cloudfront**
- DynamoDB

Which AWS service would you use to obtain compliance reports and certificates?
- **Artifact**
- Lambda
- Inspector
- Certificate manager

Which of the following tasks are the responsibility of the AWS customer? (CHOOSE TWO)
- **Ensuring that application data is encrypted at rest**
- Ensuring that AWS NTP servers are set to correct time
- **Ensuring users have received security training in the use of AWS services**
- Ensuring that access to data centres is restricted
- Ensuring that hardware is disposed of properly

Which AWS service can be used to manually launch instances based on resource requirements?
- EBS
- S3
- **EC2**
- ECS

Which is the most cost effective for an application that is non-interruptible workloads for 3 year time frame
- Spot
- Dedicated
- **Reserved**
- On-Demand

What are the financial benefits of AWS? (Choose two)
- **Reduced TCO**
- Increases Capital expenditure
- **Reduced operational expenditure**
- Deferred payment plans for startups
- Business credit lines for startups

Which cost management tool allows you to view the most granular data about your aws bill?
- Cost explorer
- Budgets
- **Cost and usage report**
- Billing dashboard

Which can an AWS customer use to launch a new RDS cluster? (Choose two)
- EC2 auto scaling
- **AWS management console**
- S3
- **CloudFormation**
- Concierge

Which of the following is an AWS cloud architecture design principle?
- Implement single points of failure
- **Implement loose coupling**
- Implement monolithic design
- Implement vertical scaling

Which of the following security measures protect access to an AWS account? (Choose two)
- Enable Cloud trail
- **Grant least privilege access to IAM users**
- Create one IAM user and share with many developers and users
- Enable amazon cloud front
- **Use MFA for privileged users**

Which service provides hybrid storage service that enables on-premises applications to seamlessly use cloud storage?
- Glacier
- Snowball
- **Storage gateway**
- EBS
    - Only works on cloud and is for EC2 instances

Which of the following services falls under the responsibility of the customer to maintain OS configuration, security patching, and networking?
- **EC2**
- RDS
- ElastiCache
- Fargate

Which AWS support plan includes a dedicated technical account manager?
- Developer
- **Enterprise**
- Business
- Basic

RDS offers which of the following benefits over traditional database management?
- It manages the data stored in RDS tables
- **It manages the maintenance of the OS**
- Automatically scales up instance types on demand
- It manages the database type

Which service is best for storing common database query results which helps alleviate database access load?
- Machine learning
- SQS
- **Elasticache**
- EC2 instance store

Which of the following is a component of the shared responsibility model managed entirely by AWS?
- Patching operating system software
- Encrypting data
- Encoring MFA
- **Auditing physical data centre assets**

If each department within a company has its own AWS account what is one way to enable consolidated billing?
- AWS budgets
- Contact AWS support for a monthly bill
- **Create an AWS organisation from the payer account to invite other accounts to join**
- Put all invoices into one S3, load data into redshift and run billing report

Which services provide information about AWS account activity? (Choose two)
- Cloud front
- **Cloud trail**
- Cloud 9
    - A cloud IDE for writing, running, and debugging code
- **Cloud watch**
- Cloud HSM
    - AWS CloudHSM helps you meet corporate, contractual, and regulatory compliance requirements for data security.

Which feature should be used to achieve high availability of an application?
- Direct connect
- **Availability zones**
- Data centres
- VPC

Which is the minimum AWS support plan that includes Infrastructure event management without additional costs
- Enterprise
- **Business**
- Developer
- Basic

Which service can serve a static website?
- **S3**
- Route 53
- Quick sight
- X ray

How does AWS shorten the time to provision IT resources?
- It supplies an Online ticketing platform for resource requests
- It supports automatic code validation services
- **Provides the ability to programmatically provision existing resources**
- Automates the resource request process from a company's IT vendor list

What can edge locations be used for? (Choose two)
- Hosting applications
- **Delivering content closer to users**
- Running NoSQL database
- **Reducing traffic on the server by caching responses**
- Sending notification messages to end users

Which of the following can limit S3 bucket access to specific users?
- A public and private key-pair
- Amazon inspector
- **AWS IAM policies**
- Security groups

What would be one financial difference after moving on-premises datacenter to Cloud?
- Variable Operating expense → upfront capital expense
- Upfront capital expense → variable capital expense
- **Upfront capital expense → variable operational expense**
- Elimination of upfront capital expense and variable operational expense

How should a customer forecast the future costs for running a new web application?
- Aurora backtrack
- Cloudwatch billing alarms
- **Simple monthly calculator**
- Cost and usage report

Which is the minimum support plan that provides technical support through phone calls?
- Basic
- Business
- Developer
- **Enterprise**

Which of the following tasks is the responsibility of AWS?
- Encrypting client side data
- Setting user password policies
- **Securing the Amazon EC2 hypervisor**
- Configuring AWS IAM roles

One benefit of On-demand EC2 pricing is
- Ability to bid for a lower hourly cost
- Paying a daily rate regardless of time used
- **Paying only for time used**
- Pre-paying for instances and paying a lower hourly rate

An admin needs to rapidly deploy a popular IT solution and start using it immediately where can the admin find assistance?
- Cloud front
- Code commit
- Well-architected framework documentation
- **Quick start reference deployments**
    - Help deploy popular technologies on AWS based on AWS best practices for security and high availability

Which of the following services is in the category of AWS serverless platform?
- **Lambda**
- EMR
- Elastic load balancing
- Mobile hub

Which services are parts of the AWS serverless platform?
- EC2, S3, Athena
- Kinesis, SQS, EMR
- **Step functions, DynamoDB, SNS**
- Athena, Cognito, EC2

Which is the sole responsibility of AWS?
- Application security
- Patch management
- Client-side data
- **Edge location management**

Which IAM feature is used to associate a set of permissions with multiple users?
- **Groups**
- Password policies
- Access keys

- MFA

Which of the following are benefits of the AWS cloud? (Select two)
- **Elasticity**
- **Agility**
- Unlimited uptime
- Colocation
- Capital expenses

Which of the following can a customer use to enable single sign on to AWS console?
- Connect
- **Directory service**
- Pinpoint
- Rekognition
    - Automate your image and video analysis with machine learning

What are the multiple, isolated locations within an AWS region that are connected by low-latency networks called?
- **AZ**
- VPCs
- Edge locations
- Direct connects

Which of the following benefits does the AWS compliance program provide to AWS customers? (Select two)
- **Verifies that hosted workloads are automatically compliant with the controls of supported compliance frameworks**
- It assures customers that aws is maintaining physical security and data protection
- It will adopt new compliance frameworks as they become relevant to customer workloads
- **AWS is responsible for the maintenance of common compliance framework documentation**
- It ensures the use of compliance frameworks that are being used by other cloud providers

Which of the following services provides on demand access to AWS compliance reports?
- AWS IAM
- **Artifact**
- Guard Duty
- KMS

When comparing AWS cloud with on-premises TCO which expenses must be considered? (Choose two)?
- Software development
- Project management
- **Storage hardware**
- **Physical servers**
- Antivirus software licence

Which are the responsibility of the customer? (Select two)
- Maintaining underlying EC2 hardware
- **Encrypting data in transit and at rest**
- Replacing failed hard disk drives
- **Deploying hardware in different availability zones**
- Managing VPC network access control lists

Which scenarios represent the concept of elasticity on AWS? (Choose Two)
- **Scaling the number of EC2 instances based on traffic**
- **Resizing RDS instances as business needs change**
- Automatically directing traffic to less utilised EC2 instances
- Using AWS compliance documents to accelerate the compliance process
- Having the ability to create and govern environments using code

What is the benefit of Spot instance?
- **When there is flexibility in when an application needs to run**
- When there are mission critical workloads
- When dedicated capacity is needed
- When an instance should not be stopped

How does AWS charge for AWS Lambda?
- **Pay based on number of requests and consumed compute resources**
- Pay for required permanent storage on a file system or in a database
- Users choose a 1,3,5 year upfront payment term
- Bid on maximum price they are willing to pay per hour

What function do security groups serve related to EC2 instance security?
- **Act as a virtual firewall for EC2 instance**
    - A security group controls the traffic that is allowed to reach and leave the resources that it is associated with
- Secure user accounts with AWS IAM policies
- Provide DDos protection with AWS shield
- Use cloud front to protect the EC2 instance

Which disaster recovery scenario offers the lowest probability of down time?
- Backup and restore
    - Simple and low cost DR approach backs up your data and applications from anywhere to AWS cloud for use during recovery from a disaster
- **Multi-site active-active**
    - A Multi-site solution runs on AWS as well as on your existing on-site infrastructure in an active-active configuration
    - At any point there is two set of applications running
- Pilot light
    - You simply replicate part of your IT structure for a limited set of core services so that the AWS cloud environment seamlessly takes over in the event of a disaster
    - Small part of your infrastructure is always running simultaneously syncing mutable data while other parts of your infrastructure are switched off and used only during testing
- Warm standby
    - A scaled-down version of fully functional environment is always running in the cloud

What will help a company perform a cost benefit analysis of migrating to the cloud?
- Cost explorer
- **TCO calculator/Migration Evaluator**
- Simple Monthly calculator
- Trusted advisor

Which of the following provides the ability to share the cost benefits of Reserved instances across AWS accounts?
- Cost explorer between AWS accounts
- **Linked accounts and consolidated billing**
- EC2 reserved instance utilisation report
- EC2 instance usage report between AWS accounts

A company is designing an application hosted in a single AWS Region serving end-users spread across the world. The company wants to provide the end-users low latency access to the application data. Which of the following services will help fulfil this requirement?
- **Cloud front**
- AWS direct connect
- Amazon route 53 Global DNS
- S3 transfer acceleration
    - Enables fast, easy, and secure transfers of files over long distances between your client and s3 bucket

Which of the following deployment models enables customers to fully trade their capital IT expenses for operational expenses?
- On-premises
- Hybrid
- **Cloud**
- Platform as a service

How is asset management on AWS easier than asset management in a physical data centre?
- AWS provides a Configuration Management Database that users can maintain.
- **AWS performs infrastructure discovery scans on the customer's behalf.**
- Amazon EC2 automatically generates an asset report and places it in the customer's specified Amazon S3 bucket.
- Users can gather asset metadata reliably with a few API calls.

What feature of RDS helps to create globally redundant databases?
- Snapshots
    - You can back up the data on your Amazon EBS volumes to Amazon S3 by taking point-in-time snapshots
    - Snapshots are incremental backups, which means that only the blocks on the device that have changed after your most recent snapshot are saved
- Automatic patching and updating
- Provisioned IOPS
- **Cross-region read replicas**
    - a feature that replicates the data from one bucket to another bucket which could be in a different region

Using AWS Identity and Access Management (IAM) to grant access only to the resources needed to perform a task is a concept known as:
- Restricted access.
- As-needed access.
- **least privilege access.**
- Token access.

Which methods can be used to identify AWS costs by departments? (Choose two.)
- Enable multi-factor authentication for the AWS account root user.
- **Create separate accounts for each department.**
- Use Reserved Instances whenever possible.
- **Use tags to associate each instance with a particular department.**
- Pay bills using purchase orders.

Under the AWS shared responsibility model, customer responsibilities include which one of the following?
- Securing the hardware, software, facilities, and networks that run all products and services.
- Providing certificates, reports, and other documentation directly to AWS customers under NDA.
- **Configuring the operating system, network, and firewall.**
- Obtaining industry certifications and independent third-party attestations

.Which managed AWS service provides real-time guidance on AWS security best practices?
- X-Ray
- **Trusted Advisor**
- CloudWatch
- Systems manager

Which feature adds elasticity to Amazon EC2 instances to handle the changing demand for workloads?
- Resource groups
- Lifecycle policies
- Application Load Balancer
- **Amazon EC2 Auto Scaling**

Under the AWS shared responsibility model, customers are responsible for which aspects of security in the cloud? (Choose two.)
- Visualisation management
    - Wrong answer since not related to security
- Hardware management
- **Encryption management**
- Facilities management
- **Firewall management**

Which AWS hybrid storage service enables on-premises applications to seamlessly use AWS Cloud storage through standard file-storage protocols?
- AWS Direct Connect
- AWS Snowball
- **AWS Storage Gateway**
- AWS Snowball Edge

What is the responsibility of AWS in the shared responsibility model?
- Updating the network ACLs to block traffic to vulnerable ports.
- Patching operating systems running on Amazon EC2 instances.
- **Updating the firmware on the underlying EC2 hosts.**
- Updating the security group rules to block traffic to the vulnerable ports.

Which architectural principle is used when deploying an Amazon Relational Database Service (Amazon RDS) instance in Multiple Availability Zone mode?
- Implement loose coupling.
- **Design for failure.**
- Automate everything that can be automated.
- Use services, not servers.

What is a benefit of loose coupling as a principle of cloud architecture design?
- It facilitates low-latency request handling.
- It allows applications to have dependent workflows.
- **It prevents cascading failures between different components.**
- It allows companies to focus on their physical data centre operations.

A director has been tasked with investigating hybrid cloud architecture. The company currently accesses AWS over the public internet. Which service will facilitate private hybrid connectivity?
- Amazon Virtual Private Cloud (Amazon VPC) NAT Gateway
- **AWS Direct Connect**
- Amazon Simple Storage Service (Amazon S3) Transfer Acceleration
- AWS Web Application Firewall (AWS WAF)

Which mechanism allows developers to access AWS services from application code?
- **AWS Software Development Kit**
- AWS Management Console
- AWS CodePipeline
- AWS Config

Which Amazon EC2 pricing model is the MOST cost efficient for an uninterruptible workload that runs once a year for 24 hours?
- **On-Demand Instances**
- Reserved Instances
- Spot Instances
- Dedicated Instances

Which of the following services is a MySQL-compatible database that automatically grows storage as needed?
- Amazon Elastic Compute Cloud (Amazon EC2)
- Amazon Relational Database Service (Amazon RDS) for MySQL
    - Does not grow storage automatically
- Amazon Lightsail
- **Amazon Aurora**

Which service's PRIMARY purpose is software version control?
- Amazon CodeStar
    - enables you to quickly develop, build, and deploy applications on AWS
- AWS Command Line Interface (AWS CLI)
- Amazon Cognito
    - Add simple and secure user sign-up, sign-in and access control to your web and mobile apps
- **AWS CodeCommit**

A company is considering migrating its applications to AWS. The company wants to compare the cost of running the workload on-premises to running the equivalent workload on the AWS platform. Which tool can be used to perform this comparison?
- AWS Simple Monthly Calculator
- **AWS Total Cost of Ownership (TCO) Calculator / Migration Evaluator**
- AWS Billing and Cost Management console
- Cost Explorer

Which AWS service provides a secure, fast, and cost-effective way to migrate or transport exabyte-scale datasets into AWS?
- AWS Batch
- AWS Snowball
- AWS Migration Hub
    - AWS Migration Hub provides a central location to collect server and application inventory data for the assessment, planning, and tracking of migrations to AWS. Migration Hub can also help accelerate application modernization following migration.
- **AWS Snowmobile**
    - AWS Snowmobile moves extremely large amounts of data to AWS. Transfer up to 100 PB per Snowmobile, a 45-foot-long ruggedized shipping container pulled by a semi-trailer truck.

Which of the following best describe the AWS pricing model? (Choose two)
- Fixed term
- **Pay as you go**
- Planned
- Colocation
- **Variable cost**

Why should a company choose AWS instead of a traditional data centre?
- AWS provides users with full control over the underlying resources.
- **AWS does not require long-term contracts and provides a pay-as-you-go model.**
- AWS offers edge locations in every country, supporting global reach.
- AWS has no limits on the number of resources that can be created.

Which solution provides the FASTEST application response times to frequently accessed data to users in multiple AWS Regions?
- AWS Cloud Trail across multiple Availability Zones
- **Amazon CloudFront to edge locations**
- AWS CloudFormation in multiple regions
- A virtual private gateway over AWS Direct Connect

Which of the following AWS services can be used to run a self-managed database?
- Amazon Route 53
- AWS X-Ray
- AWS Snowmobile
- **Amazon Elastic Compute Cloud (Amazon EC2)**

How can a user protect against AWS service disruptions if a natural disaster affects an entire geographic area?
- Deploy applications across multiple Availability Zones within an AWS Region.
- Use a hybrid cloud computing deployment model within the geographic area.
- **Deploy applications across multiple AWS Regions.**
- Store application artefacts using AWS Artifact and replicate them across multiple AWS Regions.

How does AWS MOST effectively reduce computing costs for a growing start-up company?
- **It provides on-demand resources for peak usage.**
- It automates the provisioning of individual developer environments.
- It automates customer relationship management
- It implements a fixed monthly computing budget.

A startup is working on a new application that needs to go to market quickly. The application requirements may need to be adjusted in the near future.
Which of the following is a characteristic of the AWS Cloud that would meet this specific need?
- Elasticity
- Reliability
- Performance
- **Agility**

Which AWS Support plan provides a full set of AWS Trusted Advisor checks?
- Business and Developer Support
- Business and Basic Support
- Enterprise and Developer Support
- **Enterprise and Business Support**

Which of the following services have Distributed Denial of Service (DDoS) mitigation features? (Choose two.)
- **AWS WAF**
- Amazon DynamoDB
- Amazon EC2
- **Amazon CloudFront**
    - AWS shield is enabled by default when using cloud front
- Amazon Inspector

What time-savings advantage is offered with the use of Amazon Rekognition?
- Amazon Rekognition provides automatic watermarking of images.
- **Amazon Rekognition provides automatic detection of objects appearing in pictures.**
- Amazon Rekognition provides the ability to resize millions of images automatically.
- Amazon Rekognition uses Amazon Mechanical Turk to allow humans to bid on object detection jobs.

When comparing AWS with on-premises Total Cost of Ownership (TCO), what costs are included?
- **Data centre security**
- Business analysis
- Project management
- Operating system administration

Which AWS tool will identify security groups that grant unrestricted Internet access to a limited list of ports?
- AWS Organizations
- **AWS Trusted Advisor**
- AWS Usage Report
- Amazon EC2 dashboard

Which is an advantage of AWS?
- **There is no guessing capacity needs**
- AWS managed compliance needs
- Data is automatically secure
- AWS audits user data

Which AWS service would a customer use with a static website to achieve lower latency and high transfer speeds?
- AWS Lambda
- Amazon DynamoDB Accelerator
- Amazon Route 53
- **Amazon CloudFront**

Which services manage and automate application deployments on AWS? (Choose two.)
- AWS Elastic Beanstalk
- **AWS CodeCommit**
- AWS Data Pipeline
- **AWS CloudFormation**
- AWS Config

Which principles are used to architect applications for reliability on the AWS Cloud? (Choose two.)
- **Design for automated failure recovery**
- **Use multiple Availability Zones**
- Manage changes via documented processes
- Test for moderate demand to ensure reliability
- Backup recovery to an on-premises environment

What tasks should a customer perform when that customer suspects an AWS account has been compromised? (Choose two.)
- **Rotate passwords and access keys.**
- Remove MFA tokens.
- Move resources to a different AWS Region.
- Delete AWS CloudTrail Resources.
- **Contact AWS Support.**

What is an example of high availability in the AWS Cloud?
- Consulting AWS technical support at any time day or night
- **Ensuring an application remains accessible, even if a resource fails**
- Making any AWS service available for use by paying on demand
- Deploying in any part of the world using AWS Regions

Which AWS security service protects applications from distributed denial of service attacks with always-on detection and automatic inline mitigations?
- Amazon Inspector
- AWS Web Application Firewall (AWS WAF)
- Elastic Load Balancing (ELB)
- **AWS Shield**

A company wants to monitor the CPU usage of its Amazon EC2 resources. Which AWS service should the company use?
- AWS CloudTrail
- **Amazon CloudWatch**
- AWS Cost and Usage report
- Amazon Simple Notification Service (Amazon SNS)

What is an AWS Identity and Access Management (IAM) role?
- A user associated with an AWS resource
    - IAM user
- A group associated with an AWS resource
    - IAM group
- **An entity that defines a set of permissions for use with an AWS resource**
- An authentication credential associated with a multi-factor authentication (MFA) token

What are the advantages of Reserved Instances? (Choose two.)
- **They provide a discount over on-demand pricing.**
- They provide access to additional instance types.
- They provide additional networking capability.
- Customers can upgrade instances as new types become available.
- **Customers can reserve capacity in an Availability Zone.**

How do Amazon EC2 Auto Scaling groups help achieve high availability for a web application?
- They automatically add more instances across multiple AWS Regions based on global demand of the application.
- **They automatically add or replace instances across multiple Availability Zones when the application needs it.**
- They enable the application's static content to reside closer to end users.
- They are able to distribute incoming requests across a tier of web server instances.

Which of the following AWS services provide compute resources? (Choose two.)
- **AWS Lambda**
- **Amazon Elastic Container Service (Amazon ECS)**
- AWS CodeDeploy
- Amazon Glacier
- AWS Organizations

Which service allows users to deploy infrastructure as code by automating the process of provisioning resources?
- Amazon gamelift
    - Amazon GameLift is a dedicated game server hosting solution that deploys, operates, and scales cloud servers for multiplayer games. Amazon GameLift deploys and manages dedicated game servers, reducing the burden of scaling servers with fluctuating player demand while providing low latency and low cost.
- Cloud formation
- Data pipeline
- Glue
    - AWS Glue is a serverless data integration service that makes it easier to discover, prepare, move, and integrate data from multiple sources for analytics, machine learning (ML), and application development.

According to the AWS shared responsibility model, who is responsible for configuration management?
- It is solely the responsibility of the customer.
- It is solely the responsibility of AWS.
- **It is shared between AWS and the customer.**
- It is not part of the AWS shared responsibility model.

Under the shared responsibility model, which of the following areas are the customer's responsibility? (Choose two.)
- Firmware upgrades of network infrastructure
- **Patching of operating systems**
- Patching of the underlying hypervisor
- Physical security of data centres
- **Configuration of the security group**

A user is running an application on AWS and notices that one or more AWS-owned IP addresses is involved in a distributed denial-of-service (DDoS) attack. Who should the user contact FIRST about this situation?
- AWS Premium Support
- AWS Technical Account Manager
- AWS Solutions Architect
- **AWS Abuse team**

Which AWS services can host a Microsoft SQL Server database? (Select TWO.)
- **Amazon EC2**
- **Amazon Relational Database Service (Amazon RDS)**
- Amazon Aurora
- Amazon Redshift
- Amazon S3

Which of the following are characteristics of Amazon S3? (Select TWO.)
- **A global file system**
- **An object store**
- A local file store
- A network file system
- A durable storage system

Which services can be used across hybrid AWS Cloud architectures? (Select TWO.)
- **Amazon Route 53**
- **Virtual Private Gateway**
- Classic Load Balancer
- Auto Scaling
- Amazon CloudWatch default metrics

Which AWS services should be used for read/write of constantly changing data? (Select TWO.)
- Amazon Glacier
- **Amazon RDS**
- AWS Snowball
- Amazon Redshift
- **Amazon EFS**

Which of the following are features of Amazon CloudWatch Logs? (Select TWO.)
- Summaries by Amazon Simple Notification Service (Amazon SNS)
- Free Amazon Elasticsearch Service analytics
- Provided at no charge
- **Real-time monitoring**
- **Adjustable retention**

Which of the following AWS services can be used to serve large amounts of online video content with the lowest possible latency? (Select TWO.)
- AWS Storage Gateway
- **Amazon S3**
- Amazon Elastic File System (EFS)
- Amazon Glacier
- **Amazon CloudFront**

Which of the following security-related services does AWS offer? (Select TWO.)
- Multi-factor authentication physical tokens
- **AWS Trusted Advisor security checks**
- **Data encryption**
- Automated penetration testing
- Amazon S3 copyrighted content detection

Which of the following are categories of AWS Trusted Advisor? (Select TWO.)
- **Fault Tolerance**
- Instance Usage
- Infrastructure
- **Performance**
- Storage Capacity

Which of the following services could be used to deploy an application to servers running on-premises? (Select TWO.)
- AWS Elastic Beanstalk
- **AWS OpsWorks**
- **AWS CodeDeploy**
- AWS Batch
- AWS X-Ray