What do you mean by AWS?

AWS provides cloud computing solutions and APIs to firms and individuals around the globe. Besides cloud services, AWS also offers other facilities for organizations/individuals like computation power, database services, content delivery, etc. Organizations have to pay for the AWS services used on a metered basis.

An organization can build a distributed computing environment with the help of AWS tools and services. Launched in 2002 (web services) and 2006 (cloud computing), AWS is widely used in India by many organizations, businesses, and individuals. Some government organizations in India also use it.

There are many cloud computing platforms in the market. But the flexibility and cost-effective cloud computing solutions of AWS set it apart from the other platforms. Currently, there are more than 200 services and products offered by AWS in various fields like IoT (Internet of Things), mobile development, data analytics, networking, etc.

Many of their services are not directly accessible to the end-users as AWS offers developer APIs for it. The web services provided by AWS are also widely used over HTTP for business purposes.

What is Amazon Elastic Compute Cloud (EC2), and also explain its features?

EC2 is part of the AWS services and enables users to rent virtual computers and run their programs. One can deploy applications on a large scale with the help of EC2. EC2 helps users to boot an AMI (Amazon Machine Language) to access a virtual machine. The configuration of a virtual machine via AMI is called an ‘instance’ by Amazon. You can launch, create, and stop many server instances with the help of EC2 for your business/organization. You will have to pay per second for the number of active servers while using EC2 for your business/firm.

Besides offering various virtual operating systems, EC2 also provides persistent storage and elastic IP addresses. Amazon CloudWatch is another service widely used by EC2 customers as it helps them monitor resource utilization. You can monitor the usage of CPU, network, etc., of RDS database replicas using Amazon CloudWatch. The auto-scaling feature of EC2 helps in adapting according to the traffic. For example, if someone uses EC2 for their e-commerce site, it will automatically scale up if the traffic on the site increases.

Discuss the pricing models for the Amazon EC2 instance

This is one of the important AWS interview questions for experienced posts. Read on to know more AWS interview questions and answers for experienced/senior posts.

There are four types of pricing models for Amazon EC2 instances that are as follows:

On-demand instance – On-demand pricing or pay-as-you-go model allows you to pay only for the resources used till now. You will have to pay by second/hour for the resources used, depending on the instances. The on-demand pricing model is good if the work hours are short and unpredictable as they do not require any upfront payment.

Reserved instance – It is the best model to use if you have a prerequisite for your upcoming requirements. Firms calculate their future EC2 requirements and pay upfront to get a discount of up to 75%. Reserved instances will save computing capacity for you, and you can use them wherever required.

Spot Instance – If some extra amount of computing capacity is required immediately, one can opt for spot instances at up to 90% discount. The unused computing capacity is sold at a heavily discounted rate via the spot instance pricing model.

Dedicated hosts – A customer can reserve a physical EC2 server by opting for the dedicated hosts pricing model.

4. What is Amazon S3? Elaborate.

S3 (Simple Storage Service) provides scalable object storage space to firms and IT professionals. It is one of the earliest services introduced by AWS. The easy-to-use web services interface of S3 allows users to store and retrieve data from remote locations. S3 contains buckets to store files/data.

Users create a bucket in the S3 and name it as it is a universal namespace. An HTTP 200 code is received on successful uploading of a file to the assigned S3 bucket. A unique name is given to each bucket to generate the DNS address (unique).

You can also download the data from a bucket in S3 and permit other users to download it. The authentication mechanism of S3 helps in securing the data from any possible breaches.

5. Your organization has decided to transfer its business processes to the public cloud. However, they want some of their information/data to be accessed only by the management team. The rest of the resources will be shared among the employees of the firm. You have to suggest a suitable cloud architecture for your firm along with the reason of choice.

This question is one of the critical AWS interview questions. Scenario-based AWS interview questions highlight the experimental knowledge and industry approach of the candidate.

I will suggest hybrid cloud architecture for my organization. Hybrid cloud architecture has the perfect blend of private and public clouds. One can use the public cloud in the hybrid architecture for the shared resources in my firm. The confidential resources can only be shared with the management team using a private cloud.

We can enjoy the services of both private and public clouds by installing a hybrid cloud architecture in our firm. Depending on the data security requirements, a hybrid cloud allows data to be accessed at different levels in an organization/firm. It will help our firm in cutting costs in the long run.

6. Explain various types of cloud service models in brief.

There are three types of cloud services models that are:

IaaS – Infrastructure as a Service (IaaS) allows users to access virtual computing resources with the help of the internet. A service provider hosts server, storage, hardware, etc. on behalf of the users via IaaS. IaaS platforms offer high scalability and can adapt according to the workload. IaaS providers also manage tasks of their users like system maintenance, backup, resilience, etc.

PaaS – Platform as a Service (PaaS) helps service providers to deliver software and hardware tools to their users. It is especially used for the application development process, and one can receive applications from the service provider via the internet using PaaS. Users do not have to own in-house software/hardware for application development/testing as they can do it with the help of PaaS.

SaaS – Software as a Service (SaaS) is a widely sold model by service providers for software distribution. On-demand computing software can be delivered using SaaS to the users/customers. The SaaS model is preferred as it is easy to administer and manage patches.

8. Explain the auto-scaling feature of EC2 along with its benefits.

The auto-scaling feature in AWS EC2 automatically scales up the computing capacity according to the need. It helps in maintaining a steady performance of business processes. Auto Scaling can help to scale multiple resources in AWS within a few minutes. Besides EC2, one can also choose to automatically scale other AWS resources and tools as and when needed. The benefits of the EC2 auto-scaling feature are as follows:

The auto-scaling feature of AWS EC2 is easy to set up. The utilization levels of various resources can be found under the same interface. You do not have to move to different consoles to check the utilization level of multiple resources.

The auto-scaling feature is innovative and automates the scaling processes. It also monitors the response of various resources to changes and scales them automatically. Besides adding computing capacity, the auto-scaling feature also removes/lessens the computing capacity if needed.

Even if the workload is unpredictable, the auto-scaling feature optimizes the application performance. The optimum performance level of an application is maintained with the help of auto-scaling.

9. What are S3 storage classes, and explain various types of S3 storage classes?

S3 storage classes are used for data integrity and assisting concurrent data loss. Whatever object you store in S3 will be associated with a respective storage class. It is also involved in maintaining the object lifecycle that helps in automatic migration and thus saves cost. The four types of S3 storage classes are as follows:

S3 Standard – The data is duplicated and stored across multiple devices in various facilities via the S3 standard storage class. A loss of a maximum of 2 facilities simultaneously can be coped up via the S3 standard. With its low latency and high throughput, it provides increased durability and availability.

S3 Standard IA – ‘S3 Standard Infrequently Accessed’ is used for conditions when data is not accessed regularly, but it should be fast when there is a need to access data. Like S3 Standard, it can also sustain the loss of data at a maximum of 2 facilities concurrently.

S3 One Zone Infrequent Access – Many of its features are similar to that of S3 Standard IA. The primary difference between S3 one zone infrequent access and the rest of the storage class is that its availability is low, i.e., 99.5%. The availability of S3 standard and standard IA is 99.99%.

S3 Glacier – S3 glacier provides the cheapest storage class as compared to other storage classes. One can use the data stored in the S3 glacier for the archive only.

10. Suppose your firm is hosting an application on AWS that helps users render images and perform general computation tasks. Your firm’s management team has suggested using an application load balancer for routing the incoming traffic on the hosted application. Explain how an application load balancer is a good choice for routing the incoming traffic?

This question is an example of scenario-based AWS interview questions. Besides having theoretical knowledge, a candidate should also know about the industry uses and working of various AWS services.

The user’s requests regarding image rendering can be directed to the image rendering servers only, while the general computing users can be directed to the computing servers. This will help in balancing the load on various servers and accessing them when needed.

12. Explain in detail about AWS VPC.

Amazon VPC (Virtual Private Cloud) lets a user launch AWS resources into a virtual network defined by the user only. Since the user defines the virtual network, various aspects of the virtual network can be controlled by the user, like subnet creation, IP address, etc.

Firms can install a virtual network within their organization and use all the AWS benefits for that network. Users can also create a routing table for their virtual network using VPC. A routing table is a set of rules that defines the direction of the incoming traffic.

The communication between your virtual network and the internet can also be established using the internet gateway offered by AWS VPC. One can access the VPC offered by Amazon via various interfaces that are AWS management console, AWS CLI (Command Line Interface), AWS SDKs, and Query API. Users can pay for additional VPC components if required like NAT gateway, traffic mirroring, private link, etc.

13. You have recently assigned various EC2 instances for your business website across different availability zones. Since your website performs a large number of read/write operations per minute, you have also used a Multi-AZ RDS DB instance (extra-large). It was going smoothly as per your plans until you discovered read contention on RDS MySQL. How are you going to solve this issue for enhancing the performance of your website?

This question is one of the prominent technical AWS interview questions asked. Besides knowing about the cloud deployment services of AWS, candidates should also focus on database services offered by Amazon.

I will install/deploy ElastiCache in the various availability zones of EC2 instances. Deploying ElastiCache in the memory cache of different availability zones will create a cached version of my website in various zones. RDS MySQL read replica will then be added to each availability zone for faster performance of the website. Since the ‘RDS MySQL read replica’ is added to each availability zone, it will not further load on the RDS MySQL instance, thus solving the read contention issue. Users can also access my website quickly in various availability zones as a cached version is created in each zone.

14. Your firm wants to connect the data center of its organization to the Amazon cloud environment for faster accessibility and performance. What course of action will you suggest for the stated scenario?

AWS data engineer interview questions can be asked if a candidate is applying for data scientist/engineer. The data center of my firm can be connected to the Amazon cloud environment with the help of VPC (Virtual Private Cloud). I would suggest my firm establish a virtual private network and then connect VPC and the data center. My firm can then launch AWS resources in the virtual private network using VPC. A virtual private network will establish a secure connection between the firm’s data center and the AWS global network. Adding cloud services to our organization will help us do more work in less time while successfully slashing costs in the long run.

I would also suggest creating multiple backups of the company data before moving it successfully to the cloud. AWS offers affordable backup plans, and one can also automate backups after a fixed interval.

15. Explain various types of elastic load balancers in AWS.

Elastic load balancing in AWS supports three different types of load balancers. The load balancers are used to route the incoming traffic in AWS. The three types of load balancers in AWS are as follows:

Application load balancer – The application load balancer is concerned with the routing decisions made at the application layer. It does path-based routing at the HTTP/HTTPS (layer 7). It also helps in routing requests to various container instances. You can route a request to more than one port in the container instances using the application load balancer.

Network load balancer – The network load balancer is concerned with routing decisions made at the transport layer (SSL/TCP). It uses a flow hash routing algorithm to determine the target on the port from the group of targets. Once the target is selected, a TCP connection is established with the chosen target based on the listener configuration that is known.

Classic load balancer – A classic load balancer can decide on either the application layer or the transport layer. One can map a load balancer port to only one container instance (fixed mapping) via the classic load balancer.

16. What do you know about NAT gateways in AWS?

NAT (Network Address Translation) is an AWS service that helps in connecting an EC2 instance to the internet. The EC2 instance used via NAT should be in a private subnet. Not only the internet but NAT can also help in connecting an EC2 instance to other AWS services.

Since we are using the EC2 instance in a private subnet, connecting to the internet via any other means would make it public. NAT helps in retaining the private subnet while establishing a connection between the EC2 instance and the internet. Users can create NAT gateways or NAT instances for establishing a connection between EC2 instances and internet/AWS services.

NAT instances are single EC2 instances, while NAT gateways can be used across various availability zones. If you are creating a NAT instance, it will support a fixed amount of traffic decided by the instance’s size.

19. What do you know about AMI?

AMI (Amazon Machine Image) is used to create a virtual machine within the EC2 environment. The services that are delivered via EC2 are deployed with the help of AMI only. The main part of AMI is its read-only filesystem image that also comprises an operating system. AMI also consists of launch permission that decides which AWS account is permitted to launch instances using AMI. The volumes attached to an instance while the launching process is decided by block device mapping in AMI. The AMI consists of three different types of images.

A Public image is an AMI that any user/client can use, while users can also opt for ‘Paid’ AMI. You can also use a ‘Shared’ AMI that provides more flexibility to the developer. Users can access A shared AMI who are allowed as per the developer’s orders.

20. Explain horizontal and vertical scaling in AWS?

This question is among the AWS basic interview questions asked to a candidate. It is also one of the important AWS interview questions for freshers. Read on to know the answer to this AWS interview question.

When RDS/EC2 servers alter the instance size for scaling purposes, it is called vertical scaling. A larger instance size is picked for scaling up in vertical scaling, while a smaller instance size is picked for scaling down. The size of the instance is altered on-demand via vertical scaling in AWS.

Unlike vertical scaling, the size of an instance is altered as per the requirements in horizontal scaling. The number of nodes/instances in a system is changed without altering their size via horizontal scaling. The horizontal auto-scaling is based on the number of connections between an instance and the integrated ELB (Elastic Load Balancer).

21. What are the main differences between AWS and OpenStack?

Both AWS and OpenStack are indulged in providing cloud computing services to their users. AWS is owned and distributed by Amazon, whereas OpenStack is an open-source cloud computing platform. AWS offers various services in cloud computing and offers IaaS, PaaS, etc., whereas OpenStack is an IaaS cloud computing platform. You can use OpenStack for free as it is open source, but you have to pay for AWS services as you use it.

Another significant difference between AWS and OpenStack is in terms of performing repeatable operations. While AWS performs repeatable functions via templates, OpenStack does it via text files. OpenStack is good for understanding and learning cloud computing, but AWS is better and equipped for businesses. AWS also offers business development tools that OpenStack does not offer.

22. What do you know about AWS CloudTrail?

People using an AWS account can audit it using the AWS CloudTrail. It also helps in ensuring compliance and governance of the AWS account. As soon as an AWS account is activated, CloudTrail also starts working and records every AWS activity as an event. One can visit the CloudTrail console anytime and can view the recent events/actions. All the efforts by a user or a role are recorded in the CloudTrail. The actions taken by various AWS services are also recorded in the CloudTrail.

With CloudTrail, you will have enhanced visibility of your AWS account and the associated actions. In an AWS infrastructure in any organization, you can quickly get to know any particular activity and gain control over the AWS infrastructure.

25. You have to upload a file of around 120 megabytes in Amazon S3. How will you approach the uploading of this file?

A file that has a size of more than 100 megabytes can be uploaded in Amazon S3 using the multipart upload utility offered by AWS. Multipart upload utility will allow me to upload the 120 megabytes file into multiple parts. All the parts of the large file will be uploaded individually using the multipart upload utility. Once all the original files are uploaded, one can merge to get the original file with 120 megabytes.

Using multipart upload utility will help me in decreasing the upload time significantly. AWS S3 commands can be used for multipart uploading and downloading. AWS S3 commands are also capable of automatically performing multipart uploading/downloading after evaluating the file size.

28. What do you know about Amazon CloudWatch? Explain its benefits in brief.

Amazon CloudWatch helps in monitoring the AWS services and resources that are being used in real-time. CloudWatch uses various metrics that help in understanding the AWS resources and services that are being used. Via CloudWatch can also view the metrics related to customized AWS applications as the CloudWatch dashboard is also customizable. By default, CloudWatch displays various metrics associated with AWS services being used. One can customize and choose a set of metrics to be shown by CloudWatch.

One can access CloudWatch services via various means like CloudWatch console, AWS CLI, CloudWatch API, and AWS SDKs. Besides resource utilization, we can also monitor the operational health of AWS services via CloudWatch.

31. What do you know about the cross-region replication service offered by AWS?

When one needs to copy data from one bucket to another, cross-region replication is used. The main benefit of cross-region replication is that it allows you to replicate data from a bucket to another while both the buckets are in different regions. One can do Asynchronous copying of data across buckets in the same AWS management console via cross-region replication.

The bucket from which the data/object is being copied is called the Source Bucket, while the other is called the Destination Bucket. Versioning should be enabled in both the source and destination buckets for availing of cross-region replication. Once you have uploaded a set of data in the destination bucket, you cannot upload/replicate the same data from the source bucket.

32. Explain what you know about CloudFront CDN.

CloudFront CDN (Computer Delivery Network) is a group of distributed servers used to deliver web content like webpages, etc. The delivery done by CloudFront CDN is based on the geographic region of the user, webpage origin, and the server being used for content delivery. The origin of all the files that are to be distributed by the CDN needs to be defined. An origin for CDN can be an S3 bucket, an AWS instance, or an elastic load balancer.

Two types of distribution are done by CloudFront CDN that is web distribution, and RTMP. Web distribution is used for websites, whereas RTMP is used for media streaming. There are around 50 edge locations distributed in various parts of the world. Edge locations are sites where the web content is cached during the delivery process.

34. What is the Simple Notification Service offered by AWS?

Simple Notification Service (SNS) offered by AWS is a means of sending messages from one application to another. It is a cost-effective solution that helps users publish messages from any particular application and forward them to other applications. SNS can also send push notifications to various mobile devices like Apple, Google, Windows phones, etc. One can also send an email/SMS to an HTTP endpoint using AWS SNS.

The best feature of SNS is that multiple types of endpoints can be grouped. SNS also supports various types of endpoints under one topic. For example, one can group Apple and Android recipients using SNS and send messages to all subscribers. SNS stores the messages already published in various availability zones to prevent any type of data loss.

35. Your firm has its offices in various parts of the world and is involved in multi-regional deployment on AWS. For data persistence, your firm uses MYSQL 5.6. Your firm has recently announced that it needs to regularly collect batch process data from each region and generate regional reports. The reports will then be forwarded to various branch offices. What course of action will you suggest to perform this task in the shortest possible time?

AWS interview questions can also be based on server deployment and database-related issues. This question is an example of AWS interview questions for experienced posts.

I will suggest creating an RDS instance as a master for managing the firm’s database. For collecting/reading reports from various locations, we can create a read replica of the RDS instance in various regional headquarters. Installing a read replica at multiple locations will help us in reading reports in less time.

36. Your firm’s application is responsible for retrieving data from your subscriber’s/user’s mobile devices every 10 minutes. The retrieved data is stored in DynamoDB. The information is extracted into S3 for each user. Once the data is extracted, the application helps in data visualization on the user end. As a senior architect in your firm, you are asked to optimize the backend architecture so that the firm can slash the costs. What are your recommendations?

AWS interview questions can change according to different job roles applied for. This question is an example of AWS architect interview questions.

I would recommend using Amazon Elasticache to cache the data stored in DynamoDB. Using Elasticache will reduce the provisioned read throughput without affecting the performance of the system. Using Elasticache will also help our firm slash the cost as it is cheaper than any other provisioned IO.

her nodes in a cluster. The master node is also responsible for monitoring the performance of various nodes and the overall health.

38. What do you know about the S3 transfer acceleration service offered by Amazon?

S3 transfer acceleration is used to make uploads to S3 quickly. S3 transfer acceleration does not upload directly to an S3 bucket as it uploads the file to the nearest edge location. A distinct URL is used by S3 transfer acceleration to upload the file to the nearest edge location and then transfer it to the required S3 bucket.

CloudFront edge network is utilized by S3 transfer acceleration to make uploads quickly, and it also optimizes the transfer process. The edge location to which the file is uploaded will automatically transfer the file to the S3 bucket in less time. The data between clients and S3 buckets can be securely transferred using the S3 transfer acceleration service by Amazon.

40. Explain some of the advantages of using AWS RDS.

AWS interview questions are likely to be framed around AWS RDS as it is one of the widely used database services in the world. Read on to know more AWS interview questions and answers.

The benefits of using AWS RDS are as follows:

While using AWS RDS, you can control/tweak various database services like CPU, storage, etc., individually.

AWS RDS helps you in enabling automatic backup and updating your database servers to the latest configuration.

AWS RDS also creates a backup instance that can be used at the time of failover and prevents data loss.

You can distribute the read traffic by creating RDS read replicas from the source database.

41. State the differences between AWS CloudFormation and AWS Elastic Beanstalk.

AWS CloudFormation is responsible for provisioning all the resources that are available within a cloud environment. It is also used for describing all the infrastructural resources present in a cloud environment. Contrary to AWS CloudFormation, AWS Elastic Beanstalk provides a suitable environment to deploy and operate applications within the cloud.

The infrastructural need of applications running in the cloud is fulfilled by AWS CloudFormation, whereas AWS Elastic Beanstalk manages the lifecycle of applications deployed in the cloud. You can fulfill various infrastructural needs of various types of applications deployed in the cloud via AWS CloudFormation like enterprise applications, legacy applications, etc. AWS Elastic Beanstalk is not concerned with the types of applications as it is combined with the developer tolls to govern the lifecycle of deployed applications.

42. Explain the working of AWS config with AWS CloudTrail.

AWS CloudTrail is widely used for recording the user API activity associated with a particular AWS account. One can monitor various API activities using AWS CloudTrail like response element, caller identity, call duration, etc. When you use AWS Config with CloudTrail, you know the configuration details associated with the AWS resources used. If something is wrong with your AWS resources, both AWS config and CloudTrail can help you identify them.

AWS config is more concerned with the changes that have been made to the AWS resources, whereas CloudTrail is concerned with the user that has made the changes. You can use both of them simultaneously for enhanced governance, compliance, and security policies.

44. Suppose a request for any particular content is made in CloudFront, but the content is not present in the nearest edge location. What will happen in this scenario?

CloudFront always caches data to the nearest edge location before delivering the data to various users. If one requests a particular content via CloudFront and the content is not stored in the nearest edge location, it will be delivered from the original server. The user’s request will not go in vain as the content will be delivered. However, we may increase the latency as the content is being delivered from the original server and not from the nearest edge location.

A cached version of the data will also be stored in the nearest edge location in this case. So we can reduce the latency if a request for the same data is made again. Only for the first time will it be delivered from the original server.

It is another example of ‘AWS interview questions’ that are scenario-based. It is also a type of AWS cloud architect interview questions.

Yes, one should launch the EC2 instances in a VPC. VPC is the best way of connecting the EC2 instances to our firm’s data center. Once each instance is connected to the VPC, we can easily assign a predetermined IP address to each EC2 instance. It will help to access the public cloud resources easily like they are stored in a private network.

45. What do you understand by volume & snapshot in AWS

In AWS, volume is block-level storage that we can assign to an EC2 instance. We can compare this to a hard disk from where the user can read or write the data. You pay for the data used by volumes as it is a way of measuring the storage section.

A snapshot is formed when we have a volume as it is a single point in time view of a volume. When the data stored in a volume is copied to another location at a single point in time, a snapshot is formed.

47. What do you know about Amazon WorkSpaces?

Amazon WorkSpaces provides virtual and cloud-based desktops to work on, also known as workspaces. You do not need to deploy physical hardware and software by using Amazon WorkSpaces. You can install Microsoft Windows or Linux virtual desktops with the aid of Amazon WorkSpaces. Users can access the virtual desktops via various devices or web browsers.

WorkSpaces allows users to choose from a wide range of available software/hardware configurations. It also provides a persistent desktop feature so that you can start working from where you had left off. Amazon also provides a WAM (WorkSpaces Application Manager) for deploying and managing applications on the virtual desktops.

48. What do you know about AWS IAM?

The key to crack an AWS interview is to know about Amazon’s wide range of services. This question is a type of basic AWS interview questions asked.

AWS IAM (Identity and Access Management) allows users to access AWS resources/services securely. One can create groups of users using AWS IAM and can assign them a customized set of permissions. Access to AWS resources can be allowed to any particular group/user via AWS IAM. One can access the IAM features under the ‘AWS Management Console’ section of your AWS account.

49. Mention the differences between security groups and a network access control list.

AWS interview questions can be related to cloud access, security, customer service, and many more topics. One should practice AWS interview questions from diverse topics related to AWS services for cracking the interview.

Security groups are used to control access to instances, while the network access control list is concerned with controlling the access at the subnet level. Network access control list can add rules for both ‘allow’ and ‘deny,’ whereas security groups can add only rules for ‘allow.’

CONCLUSION

One should analyze their competencies and apply for a suitable job role in Amazon. If you use a developer/architect post in AWS, focus more on AWS cloud architect interview questions. One

should also prepare scenario-based interview questions as a candidate can also encounter them. AWS interview questions revolve around the various services offered by Amazon.

Why do we make subnets?

Creating subnets means dividing a large network into smaller ones. These subnets can be created for several reasons. For example, creating and using subnets can help reduce congestion by making sure that the traffic destined for a subnet stays in that subnet. This helps in efficiently routing the traffic coming to the network that reduces the network’s load. Learn more about AWS from this AWS Training in New York to get ahead in your career!

Is there a way to upload a file that is greater than 100 megabytes in Amazon S3?

Yes, it is possible by using multipart upload utility from AWS. With multipart upload utility, larger files can be uploaded in multiple parts that are uploaded independently. You can also decrease upload time by uploading these parts in parallel. After the upload is done, the parts will be merged into a single object or file to create the original file from which the parts were created.

7. What is the maximum number of S3 buckets you can create?

50

20

70

100

100

8. How can you save the data on root volume on an EBS-backed machine?

By overriding the terminate option

9. When should you use the classic load balancer and the application load balancer?

The classic load balancer is used for simple load balancing of traffic across multiple EC2 instances.

Classic Load Balancer

While, the application load balancing is used for more intelligent load balancing, based on the multi-tier architecture or container-based architecture of the application. Application load balancing is mostly used when there is a need to route traffic to multiple services.

Classic Load Balancer

10. How many total VPCs per account/region and subnets per VPC can you have?

4, 100

7, 40

5, 200

3, 150

5, 200

11. Your organization has decided to have all their workload on the public cloud. But, due to certain security concerns, your organization decides to distribute some of the workload on private servers. You are asked to suggest a cloud architecture for your organization. What will be your suggestion?

A hybrid cloud. The hybrid cloud architecture is where an organization can use the public cloud for shared resources and the private cloud for its confidential workloads.

Career Transition

12. Which one of the storage solutions offered by AWS would you use if you need extremely low pricing and data archiving?

Amazon Glacier. AWS Glacier is an extremely low-cost storage service offered by Amazon that is used for data archiving and backup purposes. The longer you store data in Glacier, the lesser it will cost you.

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13. You have connected four instances to ELB. To automatically terminate your unhealthy instances and replace them with new ones, which functionality would you use?

Auto-scaling groups

14. The data on the root volumes of store-backed and EBS-backed instances get deleted by default when they are terminated. If you want to prevent that from happening, which instance would you use?

EBS-backed instances. EBS-backed instances use EBS volume as their root volume. EBS volume consists of virtual drives that can be easily backed up and duplicated by snapshots.

EBS Backed Instances

The biggest advantage of EBS-backed volumes is that the data can be configured to be stored for later retrieval even if the virtual machine or the instances are shut down.

15. How will you configure an Amazon S3 bucket to serve static assets for your public web application?

By configuring the bucket policy to provide public read access to all objects

That is all we have in our section on basic Amazon Web Services interview questions section. Let’s move onto the next section on AWS interview questions for experienced professionals.

Intermediate AWS Interview Questions

16. Your organization wants to send and receive compliance emails to its clients using its own email address and domain. What service would you suggest for achieving the same in an easy and cost-effective way?

Amazon Simple Email Service (Amazon SES), which is a cloud-based email sending service, can be used for this purpose.

17. Can you launch Amazon Elastic Compute Cloud (EC2) instances with predetermined private IP addresses? If yes, then with which Amazon service it is possible?

Yes. It is possible by using VPC (Virtual Private Cloud).

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18. If you launched a standby RDS, will it be launched in the same availability zone as your primary?

No, standby instances are automatically launched in different availability zones than the primary, making them physically independent infrastructures. This is because the whole purpose of standby instances is to prevent infrastructure failure. So, in case the primary goes down, the standby instance will help recover all of the data.

19. Which of the following is a global Content Delivery Network service that securely delivers data to users with low latency and high transfer speed.

Amazon CloudFront

20. Which Amazon solution will you use if you want to accelerate moving petabytes of data in and out of AWS, using storage devices that are designed to be secure for data transfer?

Amazon Snowball. AWS Snowball is the data transport solution for large amounts of data that need to be moved into and out of AWS using physical storage devices.

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21. If you are running your DB instance as Multi-AZ deployment, can you use standby DB instances along with your primary DB instance?

No, the standby DB instance cannot be used along with the primary DB instances since the standby DB instances are supposed to be used only if the primary instance goes down.

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22. Your organization is developing a new multi-tier web application in AWS. Being a fairly new and small organization, there’s limited staff. But, the organization requires high availability. This new application comprises complex queries and table joins. Which Amazon service will be the best solution for your organization’s requirements?

DynamoDB will be the right choice here since it is designed to be highly scalable, more than RDS or any other relational database services.

23. You accidently stopped an EC2 instance in a VPC with an associated Elastic IP. If you start the instance again, what will be the result?

Elastic IP will be only disassociated from the instance if it’s terminated. If it’s stopped and started, there won’t be any change to instance and no data will be lost.

24. Your organization has around 50 IAM users. Now, it wants to introduce a new policy that will affect the access permissions of an IAM user. How can it implement this without having to apply the policy at the individual user level?

It is possible using IAM groups, by adding users in the groups as per their roles and by simply applying the policy to the groups.

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Advanced AWS Interview Questions

25. Your organization is using DynamoDB for its application. This application collects data from its users every 10 minutes and stores it in DynamoDB. Then every day, after a particular time interval, the data (respective to each user) is extracted from DynamoDB and sent to S3. Then, the application visualizes this data to the users. You are asked to propose a solution to help optimize the backend of the application for latency at lower cost. What would you recommend?

ElastiCache. Amazon ElastiCache is a caching solution offered by Amazon.

Elastic Cache

It can be used to store a cached version of the application in a region closer to users so that when requests are made by the users the cached version of the application can respond, and hence latency will be reduced.

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26. I created a web application with autoscaling. I observed that the traffic on my application is the highest on Wednesdays and Fridays between 9 AM and 7 PM. What would be the best solution for me to handle the scaling?

Configure a policy in autoscaling to scale as per the predictable traffic patterns.

27. How would you handle a situation where the relational database engine crashes often whenever the traffic to your RDS instances increases, given that the replica of RDS instance is not promoted as the master instance?

A bigger RDS instance type needs to be opted for handling large amounts of traffic, creating manual or automated snapshots to recover data in case the RDS instance goes down.

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28. You have an application running on your Amazon EC2 instance. You want to reduce the load on your instance as soon as the CPU utilization reaches 100 percent. How will you do that?

It can be done by creating an autoscaling group to deploy more instances when the CPU utilization exceeds 100 percent and distributing traffic among instances by creating a load balancer and registering the Amazon EC2 instances with it.

29. What would I have to do if I want to access Amazon Simple Storage buckets and use the information for access audits?

AWS CloudTrail can be used in this case as it is designed for logging and tracking API calls, and it has also been made available for storage solutions.

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30. I created a key in North Virginia region to encrypt my data in Oregon region. I also added three users to the key and an external AWS account. Then, to encrypt an object in S3, when I tried to use the same key, it was not listed. Where did I go wrong?

The data and the key should be in the same region. That is, the data that has to be encrypted should be in the same region as the one in which the key was created. In this case, the data is in Oregon region, whereas the key is created in North Virginia region.

31. Suppose, you hosted an application on AWS that lets the users render images and do some general computing. Which of the below listed services can you use to route the incoming user traffic?

Classic Load Balancer

Application Load Balancer

Network Load balancer

Application Load Balancer: It supports path-based routing of the traffic and hence helps in enhancing the performance of the application structured as smaller services.

Application Load Balancer

Using application load balancer, the traffic can be routed based on the requests made. In this case scenario, the traffic where requests are made for rendering images can be directed to the servers only deployed for rendering images and the traffic where the requests are made for computing can be directed to the servers deployed only for general computing purposes.

32. Suppose, I created a subnet and launched an EC2 instance in the subnet with default settings. Which of the following options will be ready to use on the EC2 instance as soon as it is launched?

Elastic IP

Private IP

Public IP

Internet Gateway

Private IP. Private IP is automatically assigned to the instance as soon as it is launched. While elastic IP has to be set manually, Public IP needs an Internet Gateway which again has to be created since it’s a new VPC.

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33. Your organization has four instances for production and another four for testing. You are asked to set up a group of IAM users that can only access the four production instances and not the other four testing instances. How will you achieve this?

We can achieve this by defining tags on the test and production instances and then adding a condition to the IAM policy that allows access to specific tags.

34. Your organization wants to monitor the read and write IOPS for its AWS MySQL RDS instance and then send real-time alerts to its internal operations team. Which service offered by Amazon can help your organization achieve this scenario?

Amazon CloudWatch would help us achieve this. Since Amazon CloudWatch is a monitoring tool offered by Amazon, it’s the right service to use in the above-mentioned scenario.

35. Which of the following services can be used if you want to capture client connection information from your load balancer at a particular time interval?

Enabling access logs on your load balancer

Enabling CloudTrail for your load balancer

Enabling CloudWatch metrics for your load balancer

Enabling CloudTrail for your load balancer. AWS CloudTrail is an inexpensive log monitoring solution provided by Amazon. It can provide logging information for load balancer or any other AWS resources. The provided information can further be used for analysis.

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36. You have created a VPC with private and public subnets. In what kind of subnet would you launch the database servers?

Database servers should be ideally launched in private subnets. Private subnets are ideal for the backend services and databases of all applications since they are not meant to be accessed by the users of the applications, and private subnets are not routable from the Internet.

37. Is it possible to switch from an Instance-backed root volume to an EBS-backed root volume at any time?

No, it is not possible.

38. Can you change the instance type of the instances that are running in your application tier and are also using autoscaling? If yes, then how? (Choose one of the following)

Yes, by modifying autoscaling launch configuration

Yes, by modifying autoscaling tags configuration

Yes, by modifying autoscaling policy configuration

No, it cannot be changed

Yes, the instance type of such instances can be changed by modifying autoscaling launch configuration. The tags configuration is used to add metadata to the instances.

39. Can you name the additional network interface that can be created and attached to your Amazon EC2 instance launched in your VPC?

Elastic Network Interface

40. Out of the following options, where does the user specify the maximum number of instances with the autoscaling commands?

Autoscaling policy configuration

Autoscaling group

Autoscaling tags configuration

Autoscaling launch configuration

Autoscaling launch configuration

41. Which service provided by AWS can you use to transfer objects from your data center, when you are using Amazon CloudFront?

Amazon Direct Connect. It is a network service that acts as an alternative to using the Internet to connect customers in on-premise sites with AWS.

42. You have deployed multiple EC2 instances across multiple availability zones to run your website. You have also deployed a Multi-AZ RDS MySQL Extra Large DB Instance. The site performs a high number of small read and write operations per second. After some time, you observed that there is read contention on RDS MySQL. What would be your approach to resolve the contention and optimize your website?

We can deploy ElastiCache in memory cache running in every availability zone. This will help in creating a cached version of the website for faster access in each availability zone. We can also add RDS MySQL read replica in each availability zone that can help in efficient and better performance for read operations. So, there will not be any increased workload on RDS MySQL instance, hence resolving the contention issue.

43. Your company wants you to propose a solution so that the company’s data center can be connected to Amazon cloud network. What would be your proposal?

The data center can be connected to Amazon cloud network by establishing a virtual private network (VPN) between the VPC and the data center. Virtual private network lets you establish a secure pathway or tunnel from your premise or device to AWS global network.

44. Which of the following Amazon Services would you choose if you want complex querying capabilities but not a whole data warehouse?

RDS

Redshift

ElastiCache

DynamoDB

Amazon RDS

45. You want to modify the security group rules while it is being used by multiple EC2 instances. Will you be able to do that? If yes, will the new rules be implemented on all previously running EC2 instances that were using that security group?

Yes, the security group that is being used by multiple EC2 instances can be modified. The changes will be implemented immediately and be applied to all the previously running EC2 instances without restarting the instances

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46. Which one of the following is a structured data store that supports indexing and data queries to both EC2 and S3?

DynamoDB

MySQL

Aurora

SimpleDB

SimpleDB

47. Which service offered by Amazon will you choose if you want to collect and process e-commerce data for near real-time analysis? (Choose any two)

DynamoDB

Redshift

Aurora

SimpleDB

DynamoDB. DynamoDB is a fully managed NoSQL database service that can be fed any type of unstructured data. Hence, DynamoDB is the most apt choice for collecting data from e-commerce websites.

For near real-time analysis, we can use Amazon Redshift.

48. If in CloudFront the content is not present at an edge location, what will happen when a request is made for that content?

CloudFront will deliver the content directly from the origin server. It will also store the content in the cache of the edge location where the content was missing.

49. Can you change the private IP address of an EC2 instance while it is in running or in a stopped state?

No, it cannot be changed. When an EC2 instance is launched, a private IP address is assigned to that instance at the boot time. This private IP address is attached to the instance for its entire lifetime and can never be changed.

50. Which of the following options will you use if you have to move data over long distances using the Internet, from instances that are spread across countries to your Amazon S3 bucket?

Amazon CloudFront

Amazon Transfer Acceleration

Amazon Snowball

Amazon Glacier

Amazon Transfer Acceleration. It throttles the data transfer up to 300 percent using optimized network paths and Amazon Content Delivery Network. Snowball cannot be used here as this service does not support cross-region data transfer.

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51. Which of the following services is a data storage system that also has REST API interface and uses secure HMAC-SHA1 authentication keys?

Amazon Elastic Block Store

Amazon Snapshot

Amazon S3

Amazon S3. It gets various requests from applications, and it has to identify which requests are to be allowed and which to be denied. Amazon S3 REST API uses a custom HTTP scheme based on a keyed HMAC for authentication of requests.

52. What kind of IP address can you use for your customer gateway (CGW) address?

We can use the Internet routable IP address, which is a public IP address of your NAT device.

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53. Which of the following is not an option in security groups?

List of users

Posts

IP addresses

List of protocols

List of users

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AWS Scenario Based Questions

54. A Company has a running Web Application Server in the N. Virginia region and the server has a large size EBS volume of approximately 500 GB, and to see the demand of business, the company needs to migrate the server from the current region to another AWS account’s Mumbai location. Which is the best way to migrate the server from the current location to the Mumbai region? And what information AWS administrator does require about AWS A/C?

Create an AMI of the server running in the North Virginia region. Once the AMI is created, The administrator would need the 12 digit account number of the #2 AWS account. This is required for copying the AMI which we have created.

Once the AMI is successfully copied into the Mumbai region, you can launch the instance using copied AMI in the Mumbai region. Once the instance is running and if it’s completely operational, the server in the North Virginia region could be terminated. This is the best way to migrate a server to a different account without any hassle.

55. Unable to ping Instance We launched a Windows 2019 IIS server in the Ohio region and deployed a dynamic website in this server, in addition, the webserver also connected with a backend MS-SQL server to store and access data related to the application. Our users were able to access the website over the Internet. The next day our client informed us that they were able to access the website, but weren’t able to ping the server from the Internet. To ensure ICMP rule in Security Group, we checked, and the Security Group had allowed rule from 0.0.0.0/0. Would you try to help troubleshoot the issue?

If the client is able to access the website from his/her end, it means the connection is perfect and no issue with connectivity and the Security Group configuration also seems correct.

We can check the internal firewall of the Windows 2019 IIS server. If it is blocking ICMP traffic, we should enable it.

56. A start-up company has a web application based in the us-east-1 Region with multiple Amazon EC2 instances running behind an Application Load Balancer across multiple Availability Zones. As the company's user base grows in the us-west-1 region, the company needs a solution with low latency and improved high availability. What should a solutions architect do to achieve it.?

You need to notice here, currently, the web application is in us-ease-1, and the user base grows in the us-east-1 region. The very first step, provision multiple EC2 instances (web application servers) and configure an Application Load Balancer in us-west-1. Now, create Global Accelerator in AWS Global Accelerator which uses an endpoint group that includes the load balancer endpoints in both Regions.

57. A company currently operates a web application backed by an Amazon RDS MySQL database. It has automated backups that are run daily and are not encrypted. A security audit requires future backups to be encrypted and unencrypted backups to be destroyed. The company will make at least one encrypted backup before destroying the old backups. What should be done to enable encryption for future backups?

Create a snapshot of the database.

Copy it to an encrypted snapshot.

Restore the database from the encrypted snapshot.

58. A company is going to launch one branch in the UK and need to continue with its existing main branch in the USA. The company has almost 15 GB of data which is stored in an S3 Bucket in the Ohio region and data is stored with the default storage class. The Company also wants to provide its updated & stored data in the London S3 bucket using one zone accessibility storage class to save storage costs. In addition, the company also wants that the data must be updated automatically in S3’s London bucket; if any data is modified or written in the S3 bucket in Ohio.

Configure Cross Region Replication Rule in Ohio region bucket and select destination bucket in the London region to replicate the data and store it in destination using one zone IA storage class to save cost.

59. You are an AWS Architect in your company, and you are asked to create a new VPC in the N.Virginia Region with two Public and two Private subnets using the following CIDR blocks:

VPC CIDR = 10.10.10.0/24

Public Subnet

Subnet01 : 10.10.10.0/26

Subnet02 : 10.10.10.64/26

Private Subnet

Subnet03: 10.10.10.128/26

Subnet04: 10.10.10.192/26

Using the above CIDRs you created a new VPC, and you launched EC2 instances in all subnets as per the need.

Now, you are facing an issue in private instances that you are unable to update operating systems from the internet. So, what architectural changes and configurations will you suggest to resolve the issue?

NAT G/W to be installed in one public subnet and will configure the route-table associated with private subnets to add NAT G/W entry to provide internet access to private instances.

60. The data on the root volumes of store-backed and EBS-backed instances get deleted by default when they are terminated. If you want to prevent that from happening, which instance would you use? And ensure if the EC2 instance is restarted, the data or configuration in the EC2 instance should not be lost.

EBS-backed instances or instances with EBS Volume. EBS-backed instances use EBS volume as their root volume. These volumes contain Operating Systems, Applications, and Data. We can create Snapshots from these volumes or AMI from Snapshots.

The main advantage of EBS-backed volume is that the data can be configured to be stored for later retrieval even if the virtual machine or the instances are shut down.

61. You have an application running on an EC2 instance. You need to reduce the load on your instance as soon as the CPU utilization reaches 80 percent. How will you accomplish the job?

It can be done by creating an autoscaling group to deploy more instances when the CPU utilization of the EC2 instance exceeds 80 percent and distributing traffic among instances by creating an application load balancer and registering EC2 instances as target instances.

62. In AWS, three different storage services are available, such as EFS, S3, and EBS. When should I use Amazon EFS vs. Amazon S3 vs. Amazon Elastic Block Store (EBS)?

Amazon Web Services (AWS) offers cloud storage services to support a wide range of storage workloads.

Amazon EFS is a file storage service for use with Amazon compute (EC2, containers, serverless) and on-premises servers. Amazon EFS provides a file system interface, file system access semantics (such as strong consistency and file locking), and concurrently accessible storage for up to thousands of Amazon EC2 instances.

Amazon EBS is a block-level storage service for use with Amazon EC2. Amazon EBS can deliver performance for workloads that require the lowest latency access to data from a single EC2 instance.

Amazon S3 is an object storage service. Amazon S3 makes data available through an Internet API that can be accessed anywhere

63. A company's web application is using multiple Linux Amazon EC2 instances and storing data on Amazon EBS volumes. The company is looking for a solution to increase the resiliency of the application in case of a failure and to provide storage that complies with atomicity, consistency, isolation, and durability (ACID). What should a solutions architect do to meet these requirements?

Create an Application Load Balancer with Auto Scaling groups across multiple Availability Zones. Store data on Amazon EFS and mount a target on each instance.

64. An application running on AWS uses an Amazon Aurora Multi-AZ deployment for its database. When evaluating performance metrics, a solutions architect discovered that the database reads are causing high I/O and adding latency to the write requests against the database. What should the solutions architect do to separate the read requests from the write requests?

Create a read replica and modify the application to use the appropriate endpoint.

65. A client reports that they wanted to see an audit log of any changes made to AWS resources in their account. What can the client do to achieve this?

Enable AWS CloudTrail logs to be delivered to an Amazon S3 bucket

66. Usually, you have noticed that one EBS volume can be connected with one EC2 instance, our company wants to run a business-critical application on multiple instances in a single region and need to store all instances output in single storage within the VPC. Instead of using EFS, our company is recommending the use of multi-attach volume with instances. As an architect, you need to suggest them what instance type and EBS volumes they should use.

The instance type should be EC2 Nitro-based instances and Provisioned IOPs io1 multi-attach EBS volumes.

67. A company is using a VPC peering connection option to connect its multiple VPCs in a single region to allow for cross VPC communication. A recent increase in account creations and VPCs has made it difficult to maintain the VPC peering strategy, and the company expects to grow to hundreds of VPCs. There are also new requests to create site-to-site VPNs with some of the VPCs. A solutions architect has been tasked with creating a centrally networking setup for multiple accounts and VPNs. Which networking solution would you recommend to resolve it?

Configure a transit gateway with AWS Transit Gateway and connect all VPCs and VPNs.

68. An organization has multiple facilities in various continents such as North America, Europe, and the Asia Pacific. The organization is designing a new distributed application to manage and optimize its global supply chain and its manufacturing process. It needs to design the process in such a way that the booked order in one continent should be able to support data failover with a short Recovery Time Objective (RTO). The uptime of the application should not impact manufacturing, what kind of solution would you recommend as a solution architect?

Use Amazon DynamoDB global tables feature for the database

6) What does an AMI include?

An AMI includes the following things

A template for the root volume for the instance

Launch permissions decide which AWS accounts can avail the AMI to launch instances

A block device mapping that determines the volumes to attach to the instance when it is launched

7) How can you send a request to Amazon S3?

Amazon S3 is a REST service, and you can send a request by using the REST API or the AWS SDK wrapper libraries that wrap the underlying Amazon S3 REST API.

8) Mention what the difference between Amazon S3 and EC2 is?

The difference between EC2 and Amazon S3 is that

EC2 S3

It is a cloud web service used for hosting your application

It is a data storage system where any amount of data can be stored

It is like a huge computer machine which can run either Linux or Windows and can handle applications like PHP, Python, Apache, or any databases

It has a REST interface and uses secure HMAC-SHA1 authentication keys

9) How many buckets can you create in AWS by default?

By default, you can create up to 100 buckets in each of your AWS accounts.

10) Explain can you vertically scale an Amazon instance? How?

Yes, you can vertically scale on the Amazon instance. For that

Spin up a new larger instance than the one you are currently running

Pause that instance and detach the root webs volume from the server and discard

Then stop your live instance and detach its root volume

Note the unique device ID and attach that root volume to your new server

And start it again

11) Explain what T2 instances is?

T2 instances are designed to provide moderate baseline performance and the capability to burst to higher performance as required by the workload.

12) In VPC with private and public subnets, database servers should ideally be launched into which subnet?

With private and public subnets in VPC, database servers should ideally launch into private subnets.

13) Mention what the security best practices for Amazon EC2 are?

For secure Amazon EC2 best practices, follow the following steps

Use AWS identity and access management to control access to your AWS resources

Restrict access by allowing only trusted hosts or networks to access ports on your instance

Review the rules in your security groups regularly

Only open up permissions that you require

Disable password-based login, for example, launched from your AMI

14) Explain how the buffer is used in Amazon web services?

The buffer is used to make the system more robust to manage traffic or load by synchronizing different components. Usually, components receive and process the requests in an unbalanced way. With the help of a buffer, the components will be balanced and will work at the same speed to provide faster services.

15) While connecting to your instance what are the possible connection issues one might face?

The possible connection errors one might encounter while connecting instances are

Connection timed out

User key not recognized by the server

Host key not found, permission denied

An unprotected private key file

Server refused our key or No supported authentication method available

Error using MindTerm on Safari Browser

Error using Mac OS X RDP Client

16) What are key-pairs in AWS?

Key-pairs are secure login information for your virtual machines. To connect to the instances, you can use key-pairs which contain a public-key and private-key.

17) What are the different types of instances?

Following are the types of instances:

General purpose

Computer Optimized

Memory Optimized

Storage Optimized

Accelerated Computing

18) Is the property of broadcast or multicast supported by Amazon VPC?

No, currently Amazon VPI does not provide support for broadcast or multicast.

19) How many Elastic IPs are allowed to be created by AWS?

5 VPC Elastic IP addresses are allowed for each AWS account.

20) Explain default storage class in S3

The default storage class is a Standard frequently accessed.

21) What are the Roles?

Roles are used to provide permissions to entities which you can trust within your AWS account. Roles are very similar to users. However, with roles, you do not require to create any username and password to work with the resources.

22) What are the edge locations?

Edge location is the area where the contents will be cached. So, when a user is trying to access any content, the content will automatically be searched in the edge location.

23) What is VPC?

aws-logoVPC stands for Virtual Private Cloud. It allows you to customize your networking configuration. It is a network which is logically isolated from another network in the cloud. It allows you to have your IP address range, internet gateways, subnet, and security groups.

24) Explain snowball

Snowball is a data transport option. It used source appliances to a large amount of data into and out of AWS. With the help of snowball, you can transfer a massive amount of data from one place to another. It helps you to reduce networking costs.

25) What is a redshift?

Redshift is a big data warehouse product. It is a fast and powerful, fully managed data warehouse service in the cloud.

26) What are the advantages of auto-scaling?

Following are the advantages of autoscaling

Offers fault tolerance

Better availability

Better cost management

27) What is meant by subnet?

A large section of IP Addresses divided into chunks is known as subnets.

28) Can you establish a Peering connection to a VPC in a different region?

Yes, we can establish a peering connection to a VPC in a different region. It is called inter-region VPC peering connection.

29) What is SQS?

Simple Queue Service is also known as SQS. It is distributed queuing service which acts as a mediator for two controllers.

30) How many subnets can you have per VPC?

You can have 200 subnets per VPC.

31) DNS and Load Balancer service comes under which type of cloud service?

DNS and Load Balancer and DNS services come under IAAS-storage cloud service.

32) What is the role of AWS CloudTrail?

CloudTrail is a specially designed tool for logging and tracking API calls. It helps to audit all S3 bucket accesses.

33) When was EC2 officially launched?

EC2 officially launched in the year 2006.

34) What is SimpleDB?

SimpleDB is a data repository of structure record which encourages data doubts and indexing both S3 and EC2are called SimpleDB.

35) Explain Amazon ElasticCache

Amazon Elasticcache is a web service which makes it easy to deploy, scale and store data in the cloud.

36) What is AWS Lambda?

Lambda is an Amazon compute service which allows you to run code in the AWS Cloud without managing servers.

37) Name the types of AMI provided by AWS

The types of AMI provided by AWS are:

Instance store backed

EBS backed

38) Name the AWS service that exists only to redundantly cache data and images?

AWS Edge locations are services that redundantly cache data and images.

39) Explain Geo Restriction in CloudFront

A Geo-restriction feature helps you to prevent users of specific geographic locations from accessing content which you’re distributing through a CloudFront web distribution.

40) What is Amazon EMR?

EMR is a survived cluster stage which helps you to interpret the working of data structures before the intimation. Apache Hadoop and Apache Spark on the Amazon Web Services help you to investigate a large amount of data. You can prepare data for the analytics goals and marketing intellect workloads using Apache Hive and using other relevant open-source designs.

41) What is the boot time taken for the instance stored backed AMI?

The boot time for an Amazon instance store-backend AMI is less than 5 minutes.

42) Do you need an internet gateway to use peering connections?

Yes, the Internet gateway is needed to use VPC (virtual private cloud peering) connections.

43) How to connect EBS volume to multiple instances?

We can’t be able to connect EBS volume to multiple instances. However, you can connect various EBS Volumes to a single instance.

44) List different types of cloud services

Various types of cloud services are:

Software as a Service (SaaS),

Data as a Service (DaaS)

Platform as a Service (PaaS)

Infrastructure as a Service (IaaS).

45) State the difference between An Instance and AMI

AMI is a template consisting of software configuration part. For example Operating systems, applications, application servers if you start an instance, a duplicate of the AMI in a row as an attendant in the cloud.

46) What are the different types of Load Balancers in AWS services?

Two types of Load balancers are:

Application Load Balancer

Classic Load Balancer

47) In which situation you will select provisioned IOPS over Standard RDS storage?

You should select provisioned IOPS storage over standard RDS storage if you want to perform batch-related workloads.

48) What are the important features of Amazon cloud search?

Important features of the Amazon cloud are:

Boolean searches

Prefix Searches

Range searches

Entire text search

AutoComplete advice

49) Can vertically scaling is allowed in Amazon Instance?

Yes, you can vertically estimate one Amazon instance.

50) What is the use of lifecycle hooks in Autoscaling?

Lifecycle hooks are used for autoscaling to put an additional wait time to a scale in or scale out event.

51) What are the various layers of Cloud Architecture explained in AWS training?

Different layers of cloud architecture are:

Cloud controller

Cluster controller

Storage Controller

Node Controller

52) What are the storage class available in Amazon s3?

Storage classes available with Amazon s3 are:

Amazon S3 standard

Amazon S3 standard-infrequent Access

Amazon S3 Reduced Redundancy Storage

Amazon Glacier

53) Name some of the DB engines which can be used in AWS RDS

MS-SQL DB

MariaDB

MYSQL DB

OracleDB

PostgreDB