|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| <hitle> | Type of cloud service AWS products | <chare> | 1 | <pext> | Define and explain the three basic types of cloud services and the AWS products that are built based on them?  The three basic types of cloud services are:  1. Computing  2. Storage  3. Networking  Here are some of the AWS products:  Computing - These include EC2, Elastic Beanstalk, Lambda, Auto-Scaling, and Lightsat.  Storage - These include S3, Glacier, Elastic Block Storage, Elastic File System.  Networking - These include VPC, Amazon CloudFront, Route53 | </end> |
| <hitle> | Availability Zone vs Region | <chare> | 1 | <pext> | What is the relation between the Availability Zone and Region?  AWS regions are separate geographical areas,  like the US-West 1 (North California) and Asia South (Mumbai).  On the other hand, availability zones are the areas  that are present inside the regions.  These are generally isolated zones that can replicate themselves  whenever required. | </end> |
| <hitle> | auto-scaling | <chare> | 1 | <pext> | What is auto-scaling?  Auto-scaling is a function that allows you to provision  and launch new instances whenever there is a demand.  It allows you to automatically increase or decrease resource capacity  in relation to the demand. | </end> |
| <hitle> | geo-targeting in CloudFront | <chare> | 1 | <pext> | What is geo-targeting in CloudFront?  Geo-Targeting is a concept where businesses  can show personalized content to their audience  based on their geographic location without changing the URL.  This helps you create customized content for the audience  of a specific geographical area, keeping their needs in the forefront. | </end> |
| <hitle> | steps involved in a CloudFormation Solution | <chare> | 1 | <pext> | What are the steps involved in a CloudFormation Solution?  The steps involved in a CloudFormation solution are:  1. Create or use an existing CloudFormation template  using JSON or YAML format.  2. Save the code in an S3 bucket,  which serves as a repository for the code.  3. Use AWS CloudFormation to call the bucket  and create a stack on your template.  4. CloudFormation reads the file and understands  the services that are called, their order,  the relationship between the services,  and provisions the services one after the other. | </end> |
| <hitle> | upgrade or downgrade with near-zero downtime | <chare> | 1 | <pext> | How do you upgrade or downgrade a system with near-zero downtime?  You can upgrade or downgrade a system  with near-zero downtime using the steps of migration:  1. Open EC2 console  2. Choose Operating System AMI  3. Launch an instance with the new instance type  4. Install all the updates  5. Install applications  6. Test the instance to see if it’s working  7. If working, deploy the new instance  and replace the older instance  8. Once it’s deployed, you can upgrade  or downgrade the system with near-zero downtime. | </end> |
| <hitle> | tools and techniques cost/price paying | <chare> | 1 | <pext> | What are the tools and techniques that you can use in AWS to identify if you are paying more than you should be, and how to correct it?  We can check how mucy we are paying  for the resources that we are using  by employing the some of resources:  1. Check the Top Services Table  It is a dashboard in the cost management console  that shows the top five most used services.  This will let us know how much money we are spending  on the resources in question.  2. Cost Explorer  There are cost explorer services available  that will help us to view and analyze the usage costs  for the last 13 months.  We can also get a cost forecast for the upcoming three months.  3. AWS Budgets  This allows us to plan a budget for the services.  Also, it will enable to check if the current plan meets  our budget and the details of how we use the services.  4. Cost Allocation Tags  This helps in identifying the resource  that has cost more in a particular month.  It let us organize our resources and cost allocation tags  to keep track of the AWS costs. | </end> |
| <hitle> | tool to log into cloud environment | <chare> | 1 | <pext> | Is there any other alternative tool to log into the cloud environment other than console?  The tools that can help you log into the AWS resources are:  1. Putty  2. AWS CLI for Linux  3. AWS CLI for Windows  4. AWS CLI for Windows CMD  5. AWS SDK  6. Eclipse | </end> |
| <hitle> | centralized logging solution | <chare> | 1 | <pext> | What services can be used to create a centralized logging solution?  The essential services that we can use are Amazon CloudWatch Logs,  store them in Amazon S3, and then use Amazon Elastic Search  to visualize them.  We can use Amazon Kinesis Firehose to move the data from Amazon S3 to Amazon ElasticSearch. | </end> |
| <hitle> | native AWS Security logging capability | <chare> | 1 | <pext> | What are the native AWS Security logging capabilities?  Most of the AWS services have their logging options.  Also, some of them have an account level logging,  like in AWS CloudTrail, AWS Config, and others.  We can use two services in specific:  1. AWS CloudTrail  This is a service that provides a history of the AWS API calls  for every account.  It lets us perform security analysis, resource change tracking,  and compliance auditing of your AWS environment as well.  The best part about this service is that it enables to configure it  to send notifications via AWS SNS when new logs are delivered.  2. AWS Config  This helps us understand the configuration changes  that happen in your environment.  This service provides an AWS inventory  that includes configuration history, configuration change notification,  and relationships between AWS resources.  It can also be configured to send information via AWS SNS  when new logs are delivered. | </end> |
| <hitle> | DDoS attack service tool | <chare> | 1 | <pext> | What is a DDoS attack, and what services can minimize them?  DDoS is a cyber-attack in which the perpetrator accesses a website  and creates multiple sessions so that the other legitimate users  cannot access the service.  The native tools that can help us deny the DDoS attacks on AWS services are:  1. AWS Shield  2. AWS WAF  3. Amazon Route53  4. Amazon CloudFront  5. ELB  6. VPC | </end> |
| <hitle> | immediately published service not see | <chare> | 1 | <pext> | You are trying to provide a service in a particular region, but you do not see the service in that region. Why is this happening, and how do you fix it?  Not all Amazon AWS services are available in all regions.  When Amazon initially launches a new service,  it doesn’t get immediately published in all the regions.  They start small and then slowly expand to other regions.  So, if we don’t see a specific service in the region,  chances are the service hasn’t been published in your region yet.  However, if we want to get the service that is not available,  we can switch to the nearest region that provides the services. | </end> |
| <hitle> | monitor website metrics application status | <chare> | 1 | <pext> | How do you set up a system to monitor website metrics in real-time in AWS?  Amazon CloudWatch helps to monitor the application status  of various AWS services and custom events.  It helps to monitor:  1. State changes in Amazon EC2  2. Auto-scaling lifecycle events  3. Scheduled events  4. AWS API calls  5. Console sign-in events | </end> |
| <hitle> | not region-specific AWS services | <chare> | 1 | <pext> | Name some of the AWS services that are not region-specific?  AWS services that are not region-specific are:  1. IAM  2. Route 53  3. Web Application Firewall  4. CloudFront | </end> |
| <hitle> | NAT Gateways vs NAT Instances | <chare> | 1 | <pext> | What are the differences between NAT Gateways and NAT Instances?  While both NAT Gateways and NAT Instances serve the same function,  they still have some key differences.  1. In availability, both of NAT Gateway and NAT Instance are high.  2. In Bandwidth, NAT Gateway is up to 45Gbps, but NAT Instance depends on instance bandwidth.  3. In Maintenance, NAT Gateway is managed by AWS, but NAT Instance is managed by user.  4. In Performance, NAT Gateway is very good, but NAT Instance is average.  5. In Cost, NAT Gateway depend on number of gateways, duration and amount of usuage,  but NAT Instance depends on number of instances, amount and type of usuage.  6. In Size and load, NAT Gateway is uniform, but NAT Instance is as per user need.  7. In Security Groups, NAT Gateway cannot be assigned, but NAT Instance can be assigned. | </end> |
| <hitle> | CloudWatch | <chare> | 1 | <pext> | What is CloudWatch?  The features of Amazon CloudWatch are:  1. It depending on multiple metrics, it participates in triggering alarms.  2. It helps in monitoring the AWS environments like CPU utilization,  EC2, Amazon RDS instances, Amazon SQS, S3, Load Balancer, SNS, etc. | </end> |
| <hitle> | Elastic Transcoder | <chare> | 1 | <pext> | What is an Elastic Transcoder?  To support multiple devices with various resolutions  like laptops, tablets, and smartphones, we need to change  the resolution and format of the video.  This can be done easily by an AWS Service tool  called the Elastic Transcoder, which is a media transcoding in the cloud  that exactly lets us do the needful.  It is easy to use, cost-effective, and highly scalable for businesses  and developers. | </end> |
| <hitle> | private IP addresses EC2 | <chare> | 1 | <pext> | With specified private IP addresses, can an Amazon Elastic Compute Cloud (EC2) instance be launched? If so, which Amazon service makes it possible?  Yes. Utilizing VPC makes it possible (Virtual Private Cloud). | </end> |
| <hitle> | EC2 regions and availability zones | <chare> | 1 | <pext> | Define Amazon EC2 regions and availability zones?  Availability zones are geographically separate locations.  As a result, failure in one zone has no effect on EC2 instances  in other zones.  When it comes to regions, they may have one or more availability zones.  This configuration also helps to reduce latency and costs. | </end> |
| <hitle> | EC2 root device volume | <chare> | 1 | <pext> | Explain Amazon EC2 root device volume?  The image that will be used to boot an EC2 instance  is stored on the root device drive.  This occurs when an Amazon AMI runs a new EC2 instance.  And this root device volume is supported by EBS or an instance store.  In general, the root device data on Amazon EBS is not affected  by the lifespan of an EC2 instance. | </end> |
| <hitle> | different type EC2 | <chare> | 1 | <pext> | Mention the different types of instances in Amazon EC2 and explain its features.?  1. General Purpose Instances:  They are used to compute a range of workloads  and aid in the allocation of processing, memory,  and networking resources.  2. Compute Optimized Instances:  These are ideal for compute-intensive applications.  They can handle batch processing workloads,  high-performance web servers, machine learning inference,  and various other tasks.  3. Memory Optimized:  They process workloads that handle massive datasets in memory  and deliver them quickly.  4. Accelerated Computing:  It aids in the execution of floating-point number calculations,  data pattern matching, and graphics processing.  These functions are carried out using hardware accelerators.  5. Storage Optimised:  They handle tasks that require sequential read and write access  to big data sets on local storage. | </end> |
| <hitle> | standby RDS same availability zone | <chare> | 1 | <pext> | Will your standby RDS be launched in the same availability zone as your primary?  No, standby instances are launched in different availability zones  than the primary, resulting in physically separate infrastructures.  This is because the entire purpose of standby instances  is to prevent infrastructure failure.  As a result, if the primary instance fails,  the backup instance will assist in recovering all of the data. | </end> |
| <hitle> | Spot Instance vs an On-demand Instance vs Reserved Instance? | <chare> | 1 | <pext> | What is the difference between a Spot Instance, an On-demand Instance, and a Reserved Instance?  Spot instances are unused EC2 instances  that users can use at a reduced cost.  When we use on-demand instances,  we must pay for computing resources  without making long-term obligations.  Reserved instances, on the other hand, allow to specify attributes  such as instance type, platform, tenancy, region, and availability zone.  Reserved instances offer significant reductions  and capacity reservations  when instances in certain availability zones are used. | </end> |
| <hitle> | relational database engine frequently collapses | <chare> | 1 | <pext> | How would you address a situation in which the relational database engine frequently collapses when traffic to your RDS instances increases, given that the RDS instance replica is not promoted as the master instance?  A larger RDS instance type is required  for handling significant quantities of traffic,  as well as producing manual or automated snapshots  to recover data if the RDS instance fails. | </end> |
| <hitle> | changing Amazon EC2 | <chare> | 1 | <pext> | What do you understand by 'changing' in Amazon EC2?  To make limit administration easier for customers,  Amazon EC2 now offers the option to switch  from the current 'instance count-based limitations'  to the new 'vCPU Based restrictions.'  As a result, when launching a combination of instance types  based on demand, utilization is measured  in terms of the number of vCPUs. | </end> |
| <hitle> | Snapshots Amazon Lightsail | <chare> | 1 | <pext> | Define Snapshots in Amazon Lightsail?  The point-in-time backups of EC2 instances, block storage drives,  and databases are known as snapshots.  They can be produced manually or automatically at any moment.  The resources can always be restored using snapshots,  even after they have been created.  These resources will also perform the same tasks as the original ones  from which the snapshots were made. | </end> |
| <hitle> | CPU usage on your instance hits 80% | <chare> | 1 | <pext> | On an EC2 instance, an application of yours is active. Once the CPU usage on your instance hits 80%, you must reduce the load on it. What strategy do you use to complete the task?  It can be accomplished by setting up an autoscaling group  to deploy additional instances,  when an EC2 instance's CPU use surpasses 80%  and by allocating traffic across instances via the creation  of an application load balancer and the designation of EC2 instances  as target instances. | </end> |
| <hitle> | AWS Auto Scaling groups | <chare> | 1 | <pext> | Multiple Linux Amazon EC2 instances running a web application for a firm are being used, and data is being stored on Amazon EBS volumes. The business is searching for a way to provide storage that complies with atomicity, consistency, isolation, and durability while also increasing the application's resilience in the event of a breakdown (ACID). What steps should a solutions architect take to fulfill these demands?  AWS Auto Scaling groups can create an application load balancer  that spans many availability zones.  We need to mount a target on each instance and save data on Amazon EFS. | </end> |
| <hitle> | email address and domain | <chare> | 1 | <pext> | Your business prefers to use its email address and domain to send and receive compliance emails. What service do you recommend to implement it easily and budget-friendly?    This can be accomplished by using  Amazon Simple Email Service (Amazon SES),  a cloud-based email-sending service. | </end> |
| <hitle> | SES | <chare> | 1 | <pext> | Describe SES?  Amazon offers the Simple Email Service (SES) service,  which allows you to send bulk emails to customers swiftly  at a minimal cost. | </end> |
| <hitle> | PaaS | <chare> | 1 | <pext> | Describe PaaS?  PaaS supports the operation of multiple cloud platforms,  primarily for the development, testing,  and oversight of the operation of the program. | </end> |
| <hitle> | S3 buckets limit | <chare> | 1 | <pext> | How many S3 buckets can be created?  Up to 100 buckets can be created by default. | </end> |
| <hitle> | elastic IP limit | <chare> | 1 | <pext> | What is the maximum limit of elastic IPs anyone can produce?  A maximum of five elastic IP addresses can be generated  per location and AWS account. | </end> |
| <hitle> | Amazon EC2 | <chare> | 1 | <pext> | What is Amazon EC2?  EC2 is short for Elastic Compute Cloud,  and it provides scalable computing capacity.  Using Amazon EC2 eliminates the need to invest in hardware,  leading to faster development and deployment of applications.  We can use Amazon EC2 to launch as many or as few virtual servers  as needed, configure security and networking, and manage storage.  It can scale up or down to handle changes in requirements,  reducing the need to forecast traffic.  EC2 provides virtual computing environments called “instances.” | </end> |
| <hitle> | Security Best Practices | <chare> | 1 | <pext> | What Are Some of the Security Best Practices for Amazon EC2?  Security best practices for Amazon EC2 include  using Identity and Access Management (IAM)  to control access to AWS resources;  restricting access by only allowing trusted hosts or networks  to access ports on an instance;  only opening up those permissions you require,  and disabling password-based logins for instances  launched from AMI. | </end> |
| <hitle> | S3 Used with EC2 Instances | <chare> | 1 | <pext> | Can S3 Be Used with EC2 Instances, and If Yes, How?  Amazon S3 can be used for instances with root devices  backed by local instance storage.  That way, developers have access to the same highly scalable, reliable,  fast, inexpensive data storage infrastructure that Amazon uses  to run its own global network of websites.  To execute systems in the Amazon EC2 environment,  developers load Amazon Machine Images (AMIs) into Amazon S3  and then move them between Amazon S3 and Amazon EC2.  Amazon EC2 and Amazon S3 are two of the best-known web services  that make up AWS. | </end> |
| <hitle> | stopping vs terminating an EC2 instance | <chare> | 1 | <pext> | What is the difference between stopping and terminating an EC2 instance?  While we may think that both stopping and terminating are the same,  there is a difference.  When we stop an EC2 instance, it performs a normal shutdown  on the instance and moves to a stopped state.  However, when we terminate the instance, it is transferred  to a stopped state, and the EBS volumes attached to it are deleted  and can never be recovered. | </end> |
| <hitle> | types of EC2 instances | <chare> | 1 | <pext> | What are the different types of EC2 instances based on their costs?  The three types of EC2 instances are:  1. On-demand Instance  It is cheap for a short time but not when taken for the long term  2. Spot Instance  It is less expensive than the on-demand instance  and can be bought through bidding.  3. Reserved Instance  If you are planning to use an instance for a year or more,  then this is the right one for you. | </end> |
| <hitle> | set up SSH agent | <chare> | 1 | <pext> | How do you set up SSH agent forwarding so that you do not have to copy the key every time you log in?  1. Go to PuTTY Configuration  2. Go to the category SSH -> Auth  3. Enable SSH agent forwarding to our instance | </end> |
| <hitle> | Solaris and AIX operating systems | <chare> | 1 | <pext> | What are Solaris and AIX operating systems? Are they available with AWS?  Solaris is an operating system that uses SPARC processor architecture,  which is not supported by the public cloud currently.  AIX is an operating system that runs only on Power CPU and not on Intel,  which means that we cannot create AIX instances in EC2.  Since both the operating systems have their limitations,  they are not currently available with AWS. | </end> |
| <hitle> | configure CloudWatch to recover | <chare> | 1 | <pext> | How do you configure CloudWatch to recover an EC2 instance?  1. Create an Alarm using Amazon CloudWatch  2. In the Alarm, go to Define Alarm -> Actions tab  3. Choose Recover this instance option | </end> |
| <hitle> | types of AMI designs | <chare> | 1 | <pext> | What are the common types of AMI designs?  1. Fully Baked AMI  2. Just Enough Baked AMI (JeOS AMI)  3. Hybrid AMI | </end> |
| <hitle> | Key-Pairs in AWS | <chare> | 1 | <pext> | What are Key-Pairs in AWS?  The Key-Pairs are password-protected login credentials  for the Virtual Machines that are used to prove our identity  while connecting the Amazon EC2 instances.  The Key-Pairs are made up of a Private Key and a Public Key  which lets us connect to the instances. | </end> |
| <hitle> | Amazon S3 | <chare> | 1 | <pext> | What is Amazon S3?  S3 is short for Simple Storage Service,  and Amazon S3 is the most supported storage platform available.  S3 is object storage that can store and retrieve any amount of data  from anywhere.  Despite that versatility, it is practically unlimited as well as cost-effective  because it is storage available on demand.  In addition to these benefits, it offers unprecedented levels of  durability and availability.  Amazon S3 helps to manage data for cost optimization,  access control, and compliance. | </end> |
| <hitle> | recover/login to an EC2 instance | <chare> | 1 | <pext> | How can you recover/login to an EC2 instance for which you have lost the key?  1. Verify that the EC2Config service is running  2. Detach the root volume for the instance  3. Attach the volume to a temporary instance  3. Modify the configuration file  4. Restart the original instance | </end> |
| <hitle> | AWS S3 vs EBS | <chare> | 1 | <pext> | What are some critical differences between AWS S3 and EBS?  1. In Paradigm, AWS S3 is Object Store, but AWS EBS is FileSystem  2. In Performance, AWS S3 is fast, but AWS EBS is superfast  3. In redundancy, AWS S3 is across data centers, but AWS EBS is within a data center  4. In Security, AWS S3 is using public or private key, but AWS EBS can be used only with EC2 | </end> |
| <hitle> | gain access to a specific bucket | <chare> | 1 | <pext> | How do you allow a user to gain access to a specific bucket?  1. Categorize your instances  2. Define how authorized users can manage specific servers.  3. Lockdown the tags  4. Attach the policies to IAM users | </end> |
| <hitle> | SnowBall | <chare> | 1 | <pext> | What is SnowBall?  To transfer terabytes of data outside and inside  of the AWS environment, a small application called SnowBall is used.  Data transferring using SnowBall is done like this:  1. A job is created.  2. The SnowBall application is connected.  3. The data is copied into the SnowBall application.  4. Data is then moved to the AWS S3. | </end> |
| <hitle> | Storage Class Amazon S3 | <chare> | 1 | <pext> | What are the Storage Classes available in Amazon S3?  The Storage Classes that are available in the Amazon S3 are:  1. Amazon S3 Glacier Instant Retrieval storage class  2. Amazon S3 Glacier Flexible Retrieval (Formerly S3 Glacier) storage class  3. Amazon S3 Glacier Deep Archive (S3 Glacier Deep Archive)  4. S3 Outposts storage class  5. Amazon S3 Standard-Infrequent Access (S3 Standard-IA)  6. Amazon S3 One Zone-Infrequent Access (S3 One Zone-IA)  7. Amazon S3 Standard (S3 Standard)  8. Amazon S3 Reduced Redundancy Storage  9. Amazon S3 Intelligent-Tiering (S3 Intelligent-Tiering) | </end> |
| <hitle> | Virtual Private Cloud (VPC) | <chare> | 1 | <pext> | What Is Amazon Virtual Private Cloud (VPC) and Why Is It Used?  A VPC is the best way of connecting to your cloud resources  from our own data center.  Once we connect our datacenter to the VPC  in which our instances are present,  each instance is assigned a private IP address  that can be accessed from your data center.  That way, we can access our public cloud resources  as if they were on your own private network. | </end> |
| <hitle> | Fix server DNS | <chare> | 1 | <pext> | VPC is not resolving the server through DNS. What might be the issue, and how can you fix it?  To fix this problem, we need to enable the DNS hostname resolution,  so that the problem resolves itself. | </end> |
| <hitle> | multiple sites to a VPC | <chare> | 1 | <pext> | How do you connect multiple sites to a VPC?  If we have multiple VPN connections,  we can provide secure communication between sites  using the AWS VPN CloudHub. | </end> |
| <hitle> | security products and features VPC | <chare> | 1 | <pext> | Name and explain some security products and features available in VPC?  1. Security groups –  This acts as a firewall for the EC2 instances,  controlling inbound and outbound traffic at the instance level.  2. Network access control lists –  It acts as a firewall for the subnets,  controlling inbound and outbound traffic at the subnet level.  3. Flow logs –  These capture the inbound and outbound traffic  from the network interfaces in your VPC. | </end> |
| <hitle> | monitor Amazon VPC | <chare> | 1 | <pext> | How do you monitor Amazon VPC?  We can monitor VPC by using:  CloudWatch and CloudWatch logs and VPC Flow Logs | </end> |
| <hitle> | Subnets limit per VPC | <chare> | 1 | <pext> | How many Subnets can you have per VPC?  We can have up to 200 Subnets per Amazon Virtual Private Cloud (VPC). | </end> |
| <hitle> | Provisioned IOPS over Standard Rds Storage | <chare> | 1 | <pext> | When Would You Prefer Provisioned IOPS over Standard Rds Storage?  We would use Provisioned IOPS  when we have batch-oriented workloads.  Provisioned IOPS delivers high IO rates, but it is also expensive.  However, batch processing workloads do not require manual intervention. | </end> |
| <hitle> | Amazon Rds vs Dynamodb vs Redshift | <chare> | 1 | <pext> | How Do Amazon Rds, Dynamodb, and Redshift Differ from Each Other?  Amazon RDS is a database management service  for relational databases.  It manages patching, upgrading, and data backups automatically.  It’s a database management service for structured data only.  On the other hand, DynamoDB is a NoSQL database service  for dealing with unstructured data.  Redshift is a data warehouse product used in data analysis. | </end> |
| <hitle> | AWS Disaster Recovery pros | <chare> | 1 | <pext> | What Are the Benefits of AWS’s Disaster Recovery?  Businesses use cloud computing in part  to enable faster disaster recovery of critical IT systems  without the cost of a second physical site.  The AWS cloud supports many popular disaster recovery architectures  ranging from small customer workload data center failures  to environments that enable rapid failover at scale.  With data centers all over the world,  AWS provides a set of cloud-based disaster recovery services  that enable rapid recovery of your IT infrastructure and data. | </end> |
| <hitle> | add instance to Auto Scaling group | <chare> | 1 | <pext> | How can you add an existing instance to a new Auto Scaling group?  We can add an existing instance to a new Auto Scaling group like this:  1. Open EC2 console  2. Select your instance under Instances  3. Choose Actions -> Instance Settings -> Attach to Auto Scaling Group  4. Select a new Auto Scaling group  5. Attach this group to the Instance  6. Edit the Instance if needed  7. Once done, you can successfully add the instance to a new Auto Scaling group | </end> |
| <hitle> | factor migrate Amazon Web Services | <chare> | 1 | <pext> | What are the factors to consider while migrating to Amazon Web Services?  There are some factors to consider during AWS migration:  1. Operational Costs –  These include the cost of infrastructure,  ability to match demand and supply, transparency, and others.  2. Workforce Productivity  3. Cost avoidance  4. Operational resilience  5. Business agility | </end> |
| <hitle> | RTO in AWS | <chare> | 1 | <pext> | What is RTO and RPO in AWS?  RTO or Recovery Time Objective is the maximum time  business or organization is willing to wait for a recovery  to complete in the wake of an outage.  On the other hand, RPO or Recovery Point Objective is  the maximum amount of data loss your company  is willing to accept as measured in time. | </end> |
| <hitle> | Snowball, Snowball Edge, and Snowmobile | <chare> | 1 | <pext> | If you would like to transfer vast amounts of data, which is the best option among Snowball, Snowball Edge, and Snowmobile?  AWS Snowball is basically a data transport solution  for moving high volumes of data into and out of a specified AWS region.  On the other hand, AWS Snowball Edge adds  additional computing functions apart from  providing a data transport solution.  The snowmobile is an exabyte-scale migration service  that allows you to transfer data up to 100 PB. | </end> |
| <hitle> | T2 instance | <chare> | 1 | <pext> | Explain what T2 instances are?  The T2 Instances are intended to give the ability  to burst to a higher performance whenever the workload demands it  and also provide a moderate baseline performance to the CPU.  The T2 instances are General Purpose instance types  and are low in cost as well.  They are usually used wherever workloads do not consistently  or often use the CPU. | </end> |
| <hitle> | AWS IAM pros | <chare> | 1 | <pext> | What are the advantages of AWS IAM?  AWS IAM allows an administrator to provide multiple users and groups  with granular access.  Various user groups and users may require varying levels of access  to the various resources that have been developed.  We may assign roles to users and create roles  with defined access levels using IAM.  It further gives us Federated Access, which allows us to grant  applications and users access to resources without having  to create IAM Roles. | </end> |
| <hitle> | UpdatingRecords | <chare> | 1 | <pext> | Explain Connection Draining  Connection Draining is an AWS service that allows us to serve current requests on the servers that are either being decommissioned or updated.  By enabling this Connection Draining, we let the Load Balancer make an outgoing instance finish its existing requests for a set length of time before sending it any new requests. A departing instance will immediately go off if Connection Draining is not enabled, and all pending requests will fail. | </end> |
| <hitle> | UpdatingRecords | <chare> | 1 | <pext> | What is Power User Access in AWS?  The AWS Resources owner is identical to an Administrator User. The Administrator User can build, change, delete, and inspect resources, as well as grant permissions to other AWS users.  Administrator Access without the ability to control users and permissions is provided to a Power User. A Power User Access user cannot provide permissions to other users but has the ability to modify, remove, view, and create resources. | </end> |
| <hitle> | UpdatingRecords | <chare> | 1 | <pext> | How is AWS CloudFormation different from AWS Elastic Beanstalk?  Here are some differences between AWS CloudFormation and AWS Elastic Beanstalk:  AWS CloudFormation helps you provision and describe all of the infrastructure resources that are present in your cloud environment. On the other hand, AWS Elastic Beanstalk provides an environment that makes it easy to deploy and run applications in the cloud.  AWS CloudFormation supports the infrastructure needs of various types of applications, like legacy applications and existing enterprise applications. On the other hand, AWS Elastic Beanstalk is combined with the developer tools to help you manage the lifecycle of your applications. | </end> |
| <hitle> | UpdatingRecords | <chare> | 1 | <pext> | What are the elements of an AWS CloudFormation template?  AWS CloudFormation templates are YAML or JSON formatted text files that are comprised of five essential elements, they are:  Template parameters  Output values  Data tables  Resources  File format version | </end> |
| <hitle> | UpdatingRecords | <chare> | 1 | <pext> | What happens when one of the resources in a stack cannot be created successfully?  If the resource in the stack cannot be created, then the CloudFormation automatically rolls back and terminates all the resources that were created in the CloudFormation template. This is a handy feature when you accidentally exceed your limit of Elastic IP addresses or don’t have access to an EC2 AMI. | </end> |
| <hitle> | UpdatingRecords | <chare> | 1 | <pext> | How can you automate EC2 backup using EBS?  Use the following steps in order to automate EC2 backup using EBS:  Get the list of instances and connect to AWS through API to list the Amazon EBS volumes that are attached locally to the instance.  List the snapshots of each volume, and assign a retention period of the snapshot. Later on, create a snapshot of each volume.  Make sure to remove the snapshot if it is older than the retention period. | </end> |
| <hitle> | UpdatingRecords | <chare> | 1 | <pext> | What is the difference between EBS and Instance Store?  EBS is a kind of permanent storage in which the data can be restored at a later point. When you save data in the EBS, it stays even after the lifetime of the EC2 instance. On the other hand, Instance Store is temporary storage that is physically attached to a host machine. With an Instance Store, you cannot detach one instance and attach it to another. Unlike in EBS, data in an Instance Store is lost if any instance is stopped or terminated. | </end> |
| <hitle> | UpdatingRecords | <chare> | 1 | <pext> | Can you take a backup of EFS like EBS, and if yes, how?  Yes, you can use the EFS-to-EFS backup solution to recover from unintended changes or deletion in Amazon EFS. Follow these steps:  Sign in to the AWS Management Console  Click the launch EFS-to-EFS-restore button  Use the region selector in the console navigation bar to select region  Verify if you have chosen the right template on the Select Template page  Assign a name to your solution stack  Review the parameters for the template and modify them if necessary | </end> |
| <hitle> | UpdatingRecords | <chare> | 1 | <pext> | How do you auto-delete old snapshots?  Here’s the procedure for auto-deleting old snapshots:  As per procedure and best practices, take snapshots of the EBS volumes on Amazon S3.  Use AWS Ops Automator to handle all the snapshots automatically.  This allows you to create, copy, and delete Amazon EBS snapshots.  S3  Interested in becoming a cloud architect? Join our Cloud Architect Master’s Program and learn AWS, Microsoft Azure, and Google Cloud Platform from the ground up!  AWS Interview Questions for Elastic Load Balancing | </end> |
| <hitle> | types of load balancers | <chare> | 1 | <pext> | What are the different types of load balancers in AWS?  There are three types of load balancers that are supported by Elastic Load Balancing:  Application Load Balancer  Network Load Balancer  Classic Load Balancer | </end> |
| <hitle> | Load Balancer | <chare> | 1 | <pext> | What are the different uses of the various load balancers in AWS Elastic Load Balancing?  1. Application Load Balancer  Used if you need flexible application management and TLS termination.  2. Network Load Balancer  Used if you require extreme performance and static IPs for your applications.  3. Classic Load Balancer  Used if your application is built within the EC2 Classic network | </end> |
| <hitle> | Identity and Access Management (IAM) | <chare> | 1 | <pext> | What Is Identity and Access Management (IAM) and How Is It Used?  Identity and Access Management (IAM) is a web service  for securely controlling access to AWS services.  IAM lets us manage users, security credentials such as access keys,  and permissions that control which AWS resources  users and applications can access. | </end> |
| <hitle> | AWS WAF in monitoring | <chare> | 1 | <pext> | How can you use AWS WAF in monitoring your AWS applications?  AWS WAF or AWS Web Application Firewall protects  our web applications from web exploitations.  It helps control the traffic flow to your applications.  With WAF, we can also create custom rules  that block common attack patterns.  It can be used for three cases:  allow all requests, prevent all requests, and count all requests for a new policy. | </end> |
| <hitle> | different AWS IAM category | <chare> | 1 | <pext> | What are the different AWS IAM categories that you can control?  Using AWS IAM, we can:  1. Create and manage IAM users  2. Create and manage IAM groups  3. Manage the security credentials of the users  4. Create and manage policies to grant access  to AWS services and resources | </end> |
| <hitle> | Policy user password | <chare> | 1 | <pext> | What are the policies that you can set for your users’ passwords?  There are some of the policies that we can set:  1. You can set a minimum length of the password,  or you can ask the users to add at least one number  or special characters in it.  2. You can assign requirements of particular character types,  including uppercase letters, lowercase letters, numbers,  and non-alphanumeric characters.  3. You can enforce automatic password expiration,  prevent reuse of old passwords, and request for a password reset  upon their next AWS sign in.  4. You can have the AWS users contact an account administrator  when the user has allowed the password to expire. | </end> |
| <hitle> | IAM role vs IAM user | <chare> | 1 | <pext> | What is the difference between an IAM role and an IAM user?  The two key differences between the IAM role and IAM user are:  1. An IAM role is an IAM entity that defines a set of permissions  for making AWS service requests,  while an IAM user has permanent long-term credentials  and is used to interact with the AWS services directly.  2. In the IAM role, trusted entities, like IAM users, applications,  or an AWS service, assume roles whereas the IAM user  has full access to all the AWS IAM functionalities. | </end> |
| <hitle> | managed policies in AWS IAM | <chare> | 1 | <pext> | What are the managed policies in AWS IAM?  There are two types of managed policies;  one that is managed by you and one that is managed by AWS.  They are IAM resources that express permissions  using IAM policy language.  We can create, edit, and manage them separately  from the IAM users, groups, and roles to which they are attached. | </end> |
| <hitle> | AWS IAM business | <chare> | 1 | <pext> | How does AWS IAM help your business?  IAM enables to:  Manage IAM users and their access –  AWS IAM provides secure resource access to multiple users  Manage access for federated users –  AWS allows to provide secure access to resources in AWS account  to our employees and applications without creating IAM roles | </end> |
| <hitle> | Amazon Route 53 | <chare> | 1 | <pext> | What Is Amazon Route 53?  Amazon Route 53 is a scalable and highly available Domain Name System (DNS).  The name refers to TCP or UDP port 53,  where DNS server requests are addressed. | </end> |
| <hitle> | Cloudtrail Route 53 | <chare> | 1 | <pext> | What Is Cloudtrail and How Do Cloudtrail and Route 53 Work Together?  CloudTrail is a service that captures information about  every request sent to the Amazon Route 53 API by an AWS account,  including requests that are sent by IAM users.  CloudTrail saves log files of these requests to an Amazon S3 bucket.  CloudTrail captures information about all requests.  We can use information in the CloudTrail log files to determine  which requests were sent to Amazon Route 53,  the IP address that the request was sent from,  who sent the request, when it was sent, and more. | </end> |
| <hitle> | Latency Based Routing vs Geo DNS | <chare> | 1 | <pext> | What is the difference between Latency Based Routing and Geo DNS?  The Geo Based DNS routing takes decisions based on  the geographic location of the request.  Whereas, the Latency Based Routing utilizes latency measurements  between networks and AWS data centers.  Latency Based Routing is used when we want to give our customers  the lowest latency possible.  On the other hand, Geo Based routing is used when we want  to direct the customer to different websites based on the country  or region they are browsing from. | </end> |
| <hitle> | Domain vs Hosted Zone | <chare> | 1 | <pext> | What is the difference between a Domain and a Hosted Zone?  1. Domain  A domain is a collection of data  describing a self-contained administrative and technical unit.  For example, www.simplilearn.com is a domain and a general DNS concept.  2. Hosted zone  A hosted zone is a container that holds information about  how you want to route traffic on the internet for a specific domain.  For example, lms.simplilearn.com is a hosted zone. | </end> |
| <hitle> | Amazon Route 53 high availability and low latency | <chare> | 1 | <pext> | How does Amazon Route 53 provide high availability and low latency?  Amazon Route 53 provides the resources in question:  1. Globally Distributed Servers  Amazon is a global service and consequently has DNS services globally.  Any customer creating a query from any part of the world  gets to reach a DNS server local to them that provides low latency.  2. Dependency  Route 53 provides a high level of dependability  required by critical applications  3. Optimal Locations  Route 53 uses a global anycast network to answer queries  from the optimal position automatically. | </end> |
| <hitle> | AWS config with AWS CloudTrail | <chare> | 1 | <pext> | How does AWS config work with AWS CloudTrail?  AWS CloudTrail records user API activity on your account  and allows to access information about the activity.  Using CloudTrail, we can get full details about API actions such as  the identity of the caller, time of the call, request parameters,  and response elements.  On the other hand, AWS Config records point-in-time configuration  details for your AWS resources as Configuration Items (CIs).  We can use a CI to ascertain what AWS resource looks like  at any given point in time.  Whereas, by using CloudTrail, we can quickly answer  who made an API call to modify the resource.  We can also use Cloud Trail to detect  if a security group was incorrectly configured. | </end> |
| <hitle> | AWS Config aggregate data vs AWS accounts | <chare> | 1 | <pext> | Can AWS Config aggregate data across different AWS accounts?  Yes, we can set up AWS Config to deliver configuration updates  from different accounts to one S3 bucket,  once the appropriate IAM policies are applied to the S3 bucket. | </end> |
| <hitle> | reserved instances vs on-demand DB instances | <chare> | 1 | <pext> | How are reserved instances different from on-demand DB instances?  Reserved instances and on-demand instances are the same  when it comes to function. They only differ in how they are billed.  Reserved instances are purchased as one-year or three-year reservations,  and in return, you get very low hourly based pricing  when compared to the on-demand cases that are billed on an hourly basis. | </end> |
| <hitle> | type of scaling RDS | <chare> | 1 | <pext> | Which type of scaling would you recommend for RDS and why?  There are two types of scaling - vertical scaling and horizontal scaling.  Vertical scaling lets you vertically scale up your master database  with the press of a button.  A database can only be scaled vertically,  and there are 18 different instances in which you can resize the RDS.  On the other hand, horizontal scaling is good for replicas.  These are read-only replicas that can only be done through Amazon Aurora. | </end> |
| <hitle> | RDS maintenance | <chare> | 1 | <pext> | What is a maintenance window in Amazon RDS? Will your DB instance be available during maintenance events?  RDS maintenance window lets you decide  when DB instance modifications, database engine version upgrades,  and software patching have to occur.  The automatic scheduling is done only for patches that are related  to security and durability.  By default, there is a 30-minute value assigned  as the maintenance window and the DB instance will still be available  during these events though you might observe a minimal effect  on performance. | </end> |
| <hitle> | consistency models DynamoDB | <chare> | 1 | <pext> | What are the consistency models in DynamoDB?  There are two consistency models In DynamoDB.  First, there is the Eventual Consistency Model,  which maximizes your read throughput.  However, it might not reflect the results of a recently completed write.  Fortunately, all the copies of data usually reach consistency  within a second.  The second model is called the Strong Consistency Model.  This model has a delay in writing the data,  but it guarantees that you will always see the updated data  every time you read it. | </end> |
| <hitle> | type of query DynamoDB | <chare> | 1 | <pext> | What type of query functionality does DynamoDB support?  DynamoDB supports GET/PUT operations by using  a user-defined primary key.  It provides flexible querying by letting you query  on non-primary vital attributes using global secondary indexes  and local secondary indexes. | </end> |
| <hitle> | single-digit millisecond latency | <chare> | 1 | <pext> | Suppose you are a game designer and want to develop a game with single-digit millisecond latency, which of the following database services would you use?  Amazon RDS  Amazon Neptune  Amazon Snowball  Amazon DynamoDB | </end> |
| <hitle> | real-time monitoring actionable insights | <chare> | 1 | <pext> | If you need to perform real-time monitoring of AWS services and get actionable insights, which services would you use?  Amazon Firewall Manager  Amazon GuardDuty  Amazon CloudWatch  Amazon EBS | </end> |
| <hitle> | sign-up, sign-in access control | <chare> | 1 | <pext> | As a web developer, you are developing an app, targeted especially for the mobile platform. Which of the following lets you add user sign-up, sign-in, and access control to your web and mobile apps quickly and easily?  AWS Shield  AWS Macie  AWS Inspector  Amazon Cognito | </end> |
| <hitle> | Machine Learning sensitive information | <chare> | 1 | <pext> | You are a Machine Learning Engineer who is on the lookout for a solution that will discover sensitive information that your enterprise stores in AWS and then use NLP to classify the data and provide business-related insights. Which among the services would you choose?  AWS Firewall Manager  AWS IAM  AWS Macie  AWS CloudHSM | </end> |
| <hitle> | allow and deny user access to AWS resources | <chare> | 1 | <pext> | You are the system administrator in your company, which is running most of its infrastructure on AWS. You are required to track your users and keep tabs on how they are being authenticated. You wish to create and manage AWS users and use permissions to allow and deny their access to AWS resources. Which of the following services suits you best?  AWS Firewall Manager  AWS Shield  Amazon API Gateway  AWS IAM | </end> |
| <hitle> | allocate various private and public IP addresses | <chare> | 1 | <pext> | Which service do you use if you want to allocate various private and public IP addresses in order to make them communicate with the internet and other instances?  Amazon Route 53  Amazon VPC  Amazon API Gateway  Amazon CloudFront | </end> |
| <hitle> | cost-efficient and resizable capacity | <chare> | 1 | <pext> | This service provides you with cost-efficient and resizable capacity while automating time-consuming administration tasks?  Amazon Relational Database Service  Amazon Elasticache  Amazon VPC  Amazon Glacier | </end> |
| <hitle> | human researchers or consultants | <chare> | 1 | <pext> | Which of the following is a means for accessing human researchers or consultants to help solve problems on a contractual or temporary basis?  Amazon Mechanical Turk  Amazon Elastic Mapreduce  Amazon DevPay  Multi-Factor Authentication | </end> |
| <hitle> | Kubernetes | <chare> | 1 | <pext> | This service is used to make it easy to deploy, manage, and scale containerized applications using Kubernetes on AWS. Which of the following is this AWS service?  Amazon Elastic Container Service  AWS Batch  AWS Elastic Beanstalk  Amazon Lightsail | </end> |
| <hitle> | run code without provisioning or managing servers | <chare> | 1 | <pext> | This service lets you run code without provisioning or managing servers. Select the correct service from the below options?  Amazon EC2 Auto Scaling  AWS Lambda  AWS Batch  Amazon Inspector | </end> |
| <hitle> | pay-per-use service | <chare> | 1 | <pext> | As an AWS Developer, using this pay-per-use service, you can send, store and receive messages between software components. Which of the following is it?  AWS Step Functions  Amazon MQ  Amazon Simple Queue Service  Amazon Simple Notification Service | </end> |
| <hitle> | real-time audio and video conferencing | <chare> | 1 | <pext> | Which service do you use if you would like to host real-time audio and video conferencing application on AWS, this service provides you with a secure and easy-to-use application?  Amazon Chime  Amazon WorkSpaces  Amazon MQ  Amazon AppStream | </end> |
| <hitle> | similar individual jobs | <chare> | 1 | <pext> | As your company's AWS Solutions Architect, you are in charge of designing thousands of similar individual jobs. Which of the following services best meets your requirements?  AWS EC2 Auto Scaling  AWS Snowball  AWS Fargate  AWS Batch | </end> |
| <hitle> | Machine Learning | <chare> | 1 | <pext> | You are a Machine Learning engineer and you are looking for a service that helps you build and train Machine Learning models in AWS. Which among the following are we referring to?  Amazon SageMaker  AWS DeepLens  Amazon Comprehend  Device Farm | </end> |
| <hitle> | Adjust capacity based on network traffic | <chare> | 1 | <pext> | Imagine that you are working for your company's IT team. You are assigned to adjusting the capacity of AWS resources based on the incoming application and network traffic. How would you do it?  Amazon VPC  AWS IAM  Amazon Inspector  Amazon Elastic Load Balancing | </end> |
| <hitle> | cross-platform video game | <chare> | 1 | <pext> | This cross-platform video game development engine that supports PC, Xbox, Playstation, iOS, and Android platforms allows developers to build and host their games on Amazon's servers.  Amazon GameLift  AWS Greengrass  Amazon Lumberyard  Amazon Sumerian | </end> |
| <hitle> | AWS costs and usage over time | <chare> | 1 | <pext> | You are the Project Manager of your company's Cloud Architects team. You are required to visualize, understand and manage your AWS costs and usage over time. Which of the following services works best?  AWS Budgets  AWS Cost Explorer  Amazon WorkMail  Amazon Connect | </end> |
| <hitle> | chief Cloud Architect monitor/adjust computer resources | <chare> | 1 | <pext> | You are the chief Cloud Architect at your company. How can you automatically monitor and adjust computer resources to ensure maximum performance and efficiency of all scalable resources?  AWS CloudFormation  AWS Aurora  AWS Auto Scaling  Amazon API Gateway | </end> |
| <hitle> | database administrator | <chare> | 1 | <pext> | As a database administrator. you will employ a service that is used to set up and manage databases such as MySQL, MariaDB, and PostgreSQL. Which service are we referring to?  Amazon Aurora  AWS RDS  Amazon Elasticache  AWS Database Migration Service | </end> |
| <hitle> | push messages | <chare> | 1 | <pext> | A part of your marketing work requires you to push messages onto Google, Facebook, Windows, and Apple through APIs or AWS Management Console. Which of the following services do you use?  AWS CloudTrail  AWS Config  Amazon Chime  AWS Simple Notification Service | </end> |
| <hitle> | support all services with region-based | <chare> | 1 | <pext> | Does Amazon support all services with region-based services?  No, not all of its services offer usage that is specific to a particular place.  But the majority of the services are region-specific. | </end> |
| <hitle> | EBS | <chare> | 1 | <pext> | In AWS, what is EBS?  A storage system used to store persistent data is called  elastic block storage (EBS).  Block-level storage volumes and EC2 instances can be used with EBS  for throughput- and transaction-intensive workloads of any scale. | </end> |
| <hitle> | Amazon EC2 | <chare> | 1 | <pext> | What is Amazon EC2?  Amazon Elastic Compute Cloud (Amazon EC2) is a computing capability  that is scalable on the Amazon Web Services (AWS) Cloud. | </end> |
| <hitle> | Amazon EC2 pros | <chare> | 1 | <pext> | What is the benefit of Amazon EC2?  Using Amazon EC2 eliminates the need to invest in hardware upfront,  allowing you to develop and deploy apps more quickly. | </end> |
| <hitle> | types of virtualization | <chare> | 1 | <pext> | What are the different types of virtualization in AWS, and what are the differences between them?  The three major types of virtualization in AWS are:  1. Hardware Virtual Machine (HVM)  It is a fully virtualized hardware, where all the virtual machines  act separate from each other.  These virtual machines boot by executing a master boot record  in the root block device of your image.  2. Paravirtualization (PV)  Paravirtualization-GRUB is the bootloader that boots the PV AMIs.  The PV-GRUB chain loads the kernel specified in the menu.  3. Paravirtualization on HVM  PV on HVM helps operating systems take advantage of storage  and network I/O available through the host. | </end> |
| <hitle> | UpdatingRecords | <chare> | 1 | <pext> | UpdatingRecords  UpdatingRecords  UpdatingRecords  UpdatingRecords  UpdatingRecords | </end> |
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