✔ Good job!
Correct

Question 1:

You are a solutions architect working for a large pharmaceutical company who are involved in high performance computing to develop new drugs to treat arthritis. You are helping them to design a new application which will need to keep network traffic the lowest latency possible while leveraging very high CPU performance. They would like to place this solution on to the AWS platform and are looking for your recommendations. Which of the following do you suggest?

🟢 CPU optimized EC2 instances deployed into placement groups

⚪ Elastic High Performance Compute Services (EHPCS).

7:09 PM
9/17/2017

✔ Good job!
Correct.

Question 2:

You work for a automotive company which is migrating their production environment in to AWS. The company has 4 separate segments, Dev, Test, UAT & Production. They require each segment to be logically isolated from each other. What VPC configuration should you recommend?

⚪ A separate subnet for each segment. Then create DENY routes to stop each subnet from being able to communicate to each other.

🟢 A separate VPC for each segment. Then create VPN tunnels from your HQ to each VPC so the appropriate teams can each speak to their dedicated VPC.
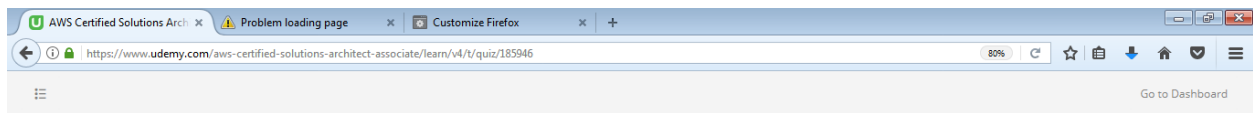
⚪ Deploy the EC2 instances for each segment in to separate security groups inside the same subnet.

⚪ Use 1 VPC and 2 subnets. Separate each segment using a combination of security groups and ACLs.

7:09 PM
9/17/2017

✓ **Good job!**
Correct.

Question 3:

By default how many VPCs can you have per region in your AWS account?

⦿ 1

⦿ 2

⦿ **5**
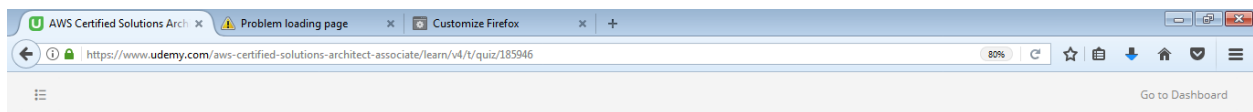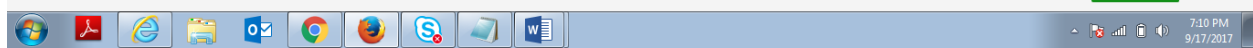
⦿ 10

Next ›   ⚙ ⤢

✓ **Good job!**
Correct.

Question 4:

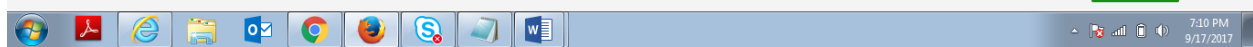**Which of the following is not associated with Identity Access Management Service**

⦿ Users

⦿ Roles

⦿ Groups

⦿ **Workspaces**

Next ›   ⚙ ⤢

✅ **Good job!**
Correct.

Question 5:

You are designing a new application for a financial company that will utilize spot EC2 instances as and when they meet a certain price point. These EC2 instances will analyse data and the output their analysis to the root volume. You need to store this data in a persistent form of storage so that if the spot instances are terminated by Amazon, you will not use your data. You need to choose the lowest cost service. Where should you store your data?

🟢 S3

⚪ DynamoDB

⚪ Oracle RDS with multi AZ.

⚪ Elasticache

✅ **Good job!**
Correct.

Question 6:

Which of the following is not a responsibility of Amazon's under the shared responsibility model?

⚪ Data centre security

⚪ Hypervisor patching

⚪ OS level patching for RDS

🟢 OS level patching for EC2

Good job!
Correct. This is an AWS responsibility, not a customers.

Question 7:

In regards to EC2 which of the following is not a customers responsibility under the shared responsibility model?

○ Antivirus

● Decommissioning and destruction of storage media

○ OS Level Patches

○ Application Level Patches

Good job!
Correct.

Question 8:

Which of the following is true when writing to S3?

● All regions provide read-after-write consistency for PUTS of new objects in your Amazon S3 bucket and eventual consistency for overwrite PUTS and DELETES.

○ All regions provide write-after-read consistency for PUTS of new objects in your Amazon S3 bucket and eventual consistency for overwrite PUTS and DELETES.

○ All regions provide write-after-read consistency for PUTS of new objects in your Amazon S3 bucket and immediate consistency for overwrite PUTS and DELETES.

○ All regions provide read-after-write consistency for PUTS of new objects in your Amazon S3 bucket and immediate consistency for overwrite PUTS and DELETES.

✔ **Good job!**
Correct. This would give you the best IO performance as you are using provisioned IOPS (PIOPS) in a RAID 0, which will give you better performance than RAID 5 as you are now writing parity to your partition.

Question 9:

You are solutions architect working for a busy ecommerce store. Due to your organisations unique security requirements, you decide to utilize EC2 running a MySQL database, rather than using RDS. You need to architect this EC2 instance to maximise your disk IO. Which of the following would give you the best disk performance?

○ Install your MySQL instance on your root device volume on your EC2 instance.

○ Add 2 x additional General Purpose SSD volumes to your EC2 instance, create a RAID 1 and then install MySQL to the newly created RAID 1 partition.

○ Add 3 x additional PIOPS SSD volumes and create a RAID 5. Install MySQL to this RAID 5 partition.

◉ Add 2 x additional PIOPS SSD volumes and create a RAID 0. Install MySQL to this RAID 0 partition.

✔ **Good job!**
Correct! You have OS level access to EC2 & Elastic Map Reduce.

Question 10:
Which of the following services do you get OS level access to?

○ RDS & EC2

○ DynamoDB & RDS

◉ EC2 & Elastic Map Reduce (EMR)

○ EC2 & RedShift

✔ **Good job!**
Correct. You require a Security Assertion Markup Language (SAML 2.0) response.

Question 11:

You are designing an AWS solution for a new customer and they want to use their active directory credentials in order to sign in to the AWS management console. What kind of authentication response is required in order for users to authenticate with the AWS security token service (STS).

🔘 Security Assertion Markup Language 2.0 (SAML 2.0)

⚪ OAuth

⚪ HTTPS

⚪ DB2

Next ›

7:13 PM
9/17/2017

✔ **Good job!**
Correct! The minimum number of subnets you require is 2, one in each availability zone.

Question 12:

You are designing a new VPC for a customer and you need to deploy your EC2 instances in to multiple availability zones. What is the minimum number of subnets that you require to achieve this objective?

⚪ 1 Subnet stretched across 2 AZ's

🔘 2 Subnets with each subnet in an independent AZ.

⚪ 2 Subnets stretched across 3 AZ's

⚪ 3 subnets with each subnet in and independent AZ.

Next ›

7:13 PM
9/17/2017

✓ **Good job!**
Correct! By default all subnets will be able to communicate with each other using the main route table.

Question 13:

You are creating a new VPC with 3 subnets in 3 separate availability zones. You require instances in each subnet to be able to communicate to each other by default. What additional steps should you take in order to achieve this objective.

○ Create a route between each subnets in a new route table and then associate this with each subnet.

● You do not need to do anything, by default all subnets can communicate with each other using the main route table

○ Create a route between each subnet in the main route table and then associate this main route table with each subnet.

○ ensure that each subnet is associated with a security group that will contain your EC2 instances.

✓ **Good job!**
Correct. Retrieve the instance Metadata from http://169.254.169.254/latest/meta-data/

Question 14:

You have an EC2 instance which needs to find out both its private IP address and its public IP address using a script. Which of the below should you include in the script to discover this information.

○ Run IPCONFIG (Windows) or IFCONFIG (Linux)

● Retrieve the instance Metadata from http://169.254.169.254/latest/meta-data/

○ Retrieve the instance Userdata from http://169.254.169.254/latest/user-data/

○ Use the following command; AWS EC2 displayIP

✅ **Good job!**
Correct! Configure encryption when creating the EBS volume. You could use the OS to encrypt a new volume after mounting it to an EC2 instance, however the quickest and most efficient way would be to encrypt the volume when you first provision it.

Question 15:

You are an AWS architect and you require encryption at rest for additional volumes attached to your EC2 instance. What is the quickest and most efficient way to achieve this?

🔘 Configure encryption when creating the EBS volume

◯ Configure encryption using the appropriate Operating Systems file system

◯ Configure encryption using X.509 certificates

◯ Mount the EBS volume in to S3 and then encrypt the bucket using a bucket policy.

7:14 PM
9/17/2017

✅ **Good job!**
Correct! DynamoDB is automatically redundant across multiple availability zones.

Question 16:

You are designing a web application for a new social media start up and have recommended using DynamoDB for the database due to its superior performance. You need to ensure that your database has redundancy. What additional steps should you do?
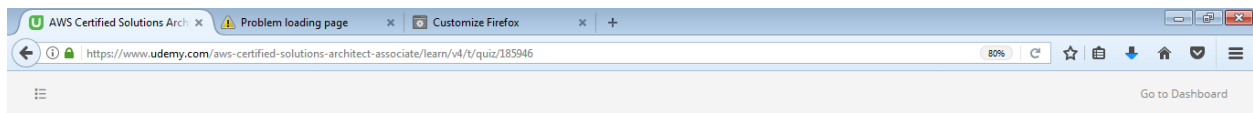
🔘 Nothing, DynamoDB all data is automatically replicated across multiple availability zones.

◯ Enable Multi-AZ when creating your Dynamodb instance

◯ Enable Read Replicas when creating your DynamoDB instance

◯ Enable snapshotting of DynamoDB and save these snapshots to S3
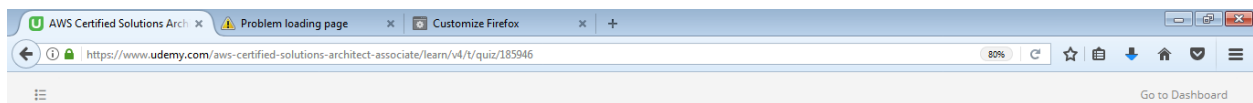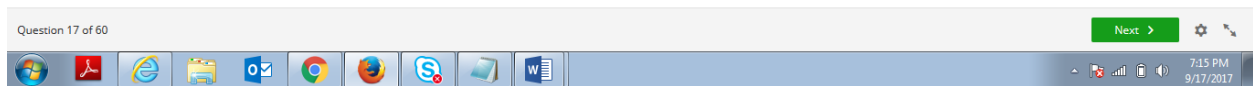
7:14 PM
9/17/2017

✓ Good job!
Correct. 1024Kb is the blocksize that redshift uses.

Question 17:

**What blocksize does Redshift use when storing it's data in columnar storage?**

○ 2KB

○ 4KB

○ 32KB

⊙ 1024KB

Next >

✓ Good job!
Correct.

Question 18:

You are designing an application for a furniture retailer. A component of the application takes pictures of the furniture for sale and generates thumb nail images which then need to be stored persistently. The business can tolerate it if some images are lost as they can be regenerated. The thumbnails will need to be retrieved immediately when the application requests them. What is the cheapest option to do this?

○ Using S3

⊙ Using S3 RRS

○ Using RDS

○ Using Glacier
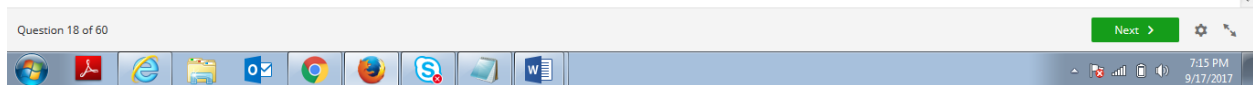
Next >

✔ Good job!
Correct.

Question 19:

You run a website which hosts videos and you have two types of members, premium fee paying members and free members. All videos uploaded by both your premium members and free members are processed by a fleet of EC2 instances which will poll SQS as videos are uploaded. However you need to ensure that your premium fee paying members videos have a higher priority than your free members. How should you design your application.

○ SQS allows you to set priorities on individual items within the queue, so simply set the fee paying members at a higher priority than your free members.

● Create two SQS queues, one for premium members and one for free members. Program your EC2 fleet to poll the premium queue first and if empty, to then poll your free members SQS queue.

○ SQS would not be suitable for this scenario. It would be much better to use SNS to encode the videos.

✔ Good job!
Correct. You should utilize CloudFront as a CDN to cache the images locally.

Question 20:

You are designing an image sharing website that will distribute images across the world. You need maximise performance so that your end users can download frequently accessed images as fast as possible. What AWS technology should you implement?

○ Glacier

○ Global Load Balancing (GLB)

● CloudFront

○ Autoscaling

✔ **Good job!**
Correct.

Question 21:

You are putting together a wordpress site for a local charity and you are using a combination of Route53, Elastic Load Balancers, EC2 & RDS. You launch your EC2 instance, download wordpress and setup the configuration files connection string so that it can communicate to RDS. When you browse to your URL however, nothing happens. Which of the following could NOT be the cause of this.

○ You have forgotten to open port 80/443 on your security group in which the EC2 instance is placed

○ Your elastic load balancer has a health check which is checking a webpage that does not exist, therefore your EC2 instance is not in service.

○ You have not configured an ALIAS for your A record to point to your elastic load balancer

● You have locked port 22 down to your specific IP address therefore users cannot access your site using HTTP/HTTPS.

Next ›   ⚙   ⤢

7:16 PM
9/17/2017

✔ **Good job!**
Correct.

Question 22:

You have uploaded a file to S3, what HTTP code would indicate that the upload was successful?

○ HTTP 404

○ HTTP 500

● HTTP 200

○ HTTP 301

Next ›   ⚙   ⤢

7:16 PM
9/17/2017

✔ **Good job!**
Correct. The best option would be to deploy a NAT to the public subnet and then update the main route table to send traffic via the NAT to the private subnet.

Question 23:

You have created a custom VPC with 3 subnets, 2 private, 1 public. You deploy 3 EC2 instances in to your public subnet and attach Elastic IP addresses to these instances. You then deploy an EC2 instance in to your private subnet and then attempt to apply security patches to this instance, however it has no internet connectivity. What can you do to give this instance internet access?

○ Deploy a NAT to the public subnet and then update the main route table to send traffic via the NAT to the private subnet.

○ Deploy your instance to a public subnet instead

○ Attach a public IP address to your EC2 instance in the private subnet.

○ Attach an additional internet gateway to your EC2 instance in the private subnet.

✔ **Good job!**
Correct. SWF is designed to Coordinate synchronous and asynchronous tasks

Question 24:

Amazon SWF is designed to help users to do which of the following?

○ Manage user identification and authorisation

○ Coordinate synchronous and asynchronous tasks

○ Store files securely in the cloud

○ Replicate an organizations email from one region to another.

✔ Good job!
Correct.

Question 25:

What service can you use to audit user access & API calls across your AWS environment?

○ CloudWatch

◉ CloudTrail

○ CloudAudit

○ CloudPolice

Next ›

✔ Good job!
Correct.

Question 26:

Under the shared responsibility model for S3 which of the following is NOT a responsibility of Amazons.

○ Maintaining video surveillance of the data halls

○ Destruction of end of life magnetic disks.

○ Restricting access to the datacenter

◉ Configuration of individual bucket policies

Next ›

✔ **Good job!**

Correct. Permission restrictions to DynamoDB would be a responsibility of a customers.

Question 27:

Under the shared responsibility model for DynamoDB which of the following is NOT a responsibility of Amazons.

○ Patching the Xen Hypervisor.

○ Destruction of magnetic storage media on decommissioning of disks.

○ Patching the underlying DynamoDB operating system.

◉ Restricting access of DynamoDB so that only the customers web application in EC2 can write data to it.

✔ **Good job!**

Correct. You are told you do not want to store the credentials long term, so answers A and D are incorrect. Answer B is incorrect because you cannot assign EC2 instances to a group, only AWS users can be assigned to a group. Answer C is correct as roles are the best way to achieve your desired goal without storing credentials for a long period of time.

Question 28:

You are a Solutions Architect working for a major European oil company. You are designing a new web application which will need to access data stored in DynamoDB. You need to do this as securely as possible, without storing any credentials on a long term basis. How would you achieve this?
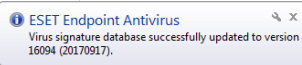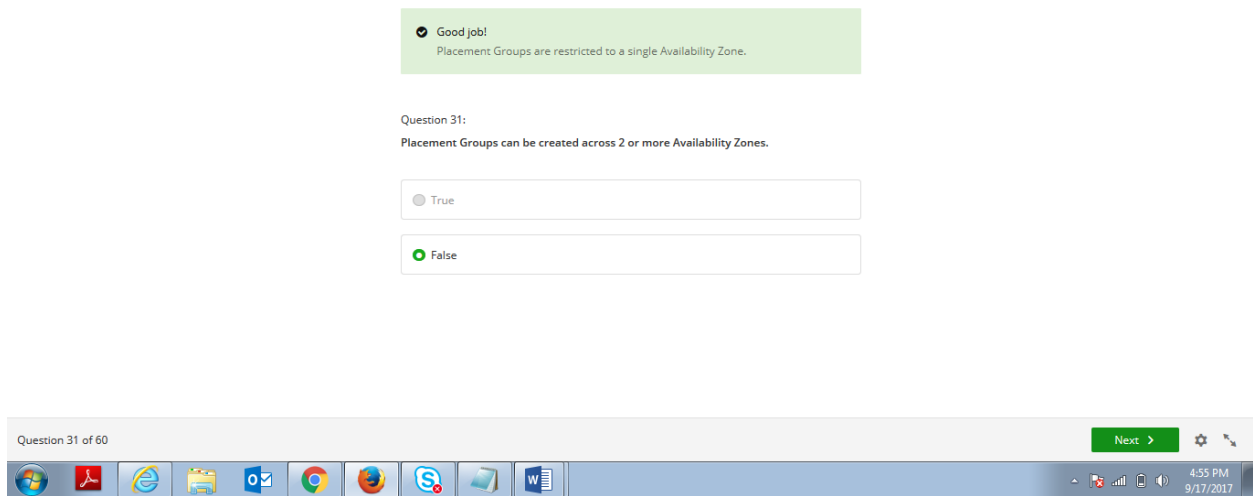
○ Store the Access Key ID & Secret Access Key on an encrypted S3 bucket.

○ Create a new group in AWS Identity and Access Management and assign the EC2 instance to the group.

◉ Use AWS Identity and Access Management roles for the EC2 Instances that need to make the API calls.

○ Store the Access Key Id & Secret Access Key in a PHP file in the application.

✓ **Good job!**
Correct.

Question 29:
You are a solutions architect working for a large cell phone company in the US. Your CSO has engaged a third party security company to conduct a security audit of your company to make sure it is not liable to hacking. The third party security company would like to conduct a penetration test on your AWS estate. Would this be allowed by AWS?

○ Yes. They can do this straight away with no prior permission necessary.

○ Only in the default VPC.

○ Not under any circumstances.

🟢 Yes, however you need to get permission from Amazon first by raising a ticket.

Next ›   ⚙ ⤢

✓ **Good job!**
Correct. The AWS platform does not provide you much protection against social engineering attacks.

Question 30:
AWS help provide protection against some forms of traditional network attacks. Which of the following is not protected against by AWS?

🟢 Social Engineering.

○ Port Scanning.

○ IP Spoofing.

○ Man In The Middle Attack.

Next ›   ⚙ ⤢

✓ Good job!
  Placement Groups are restricted to a single Availability Zone.

Question 31:
Placement Groups can be created across 2 or more Availability Zones.

○ True

● False

✓ Good job!
  Availability Zone names are unique per account and do not represent a specific
  set of physical resources.

> This was discussed in Lecture 5: **AWS - 10,000 Foot Overview Part 1**

Question 32:
**You have three AWS accounts (A, B & C) which share data. In an attempt to maximize
performance between the accounts, you deploy the instances owned by these three
accounts in "eu-west-1b". During testing, you find inconsistent results in transfer
latency between the instances. Transfer between accounts A and B is excellent, but
transfers between accounts B and C, and C and A, are slower. What could be the
problem ?**

● The names of the AZs are randomly applied, so 'eu-west-1b' is not necessarily the same physical location for all three accounts

○ You have incorrectly configured the cross-account authentication policies in Account C, adding latency to those instances.

○ Account C has been allocated to an older section of the Data Hall with slower networking.

ⓘ **ESET Endpoint Antivirus**   🔍 ✕
  Virus signature database successfully updated to version
  16094 (20170917).

Question 33:

Your company has hired a young and enthusiastic accountant. After reviewing the AWS documentation and usage graphs, he announces that you are wasting vast amounts of money running servers for a full hour instead of spinning them up only when they are needed and down again as soon as they are idle for 1 minute. He cites the AWS claim that you only pay for what you use, and that as a senior engineer, you should be more conscious of wasting company money. How do you respond ?

○ You leap across the meeting table and slap him for insulting you in front of your peers.

○ Acknowledge the problem and propose that you could downsize the instances so that the workload over the hour consumes the full instance capacity for the full hour. You might also propose closer monitoring and automation to allow you to up-size and down-size the instance each hour over the day to match the instance performance to the anticipated workload.

● You thank him for his concern, and advise him that he has misinterpreted the pricing document: Instances are billed by the full hour, and partial hours are billed as such. Additionally, storage charges are incurred even if the Db instance sits idle. Taking into account productivity losses, stopping and restarting Db instances may actually result in additional costs. As such, your solution is fine as it now stands.

○ You grudgingly acknowledge his point and change your scheduling and tuning settings.

✔ Good job!
Amazon Snowball has replaced the older AWS Import/Export Disk service.

Question 34:

Your company is moving their 10TB data warehouse to the cloud. Taking into account your company's 100Mbps connection, which service would most quickly get your data into AWS?

○ Amazon Import/Export Disk

○ Amazon S3 Multi-part Upload

○ Amazon RedShift Import

● Amazon Snowball

> This was discussed in Lecture 45: **Autoscaling 101 - Lab**

Question 35:

You have been monitoring a sensitive autoscaling group, and you expect it to scale-in as you enter a period of holiday downtime. The auto scaling group is distributed over three AZs (AZ - A & -B have two instances each, and AZ -C has three instances). All instances have different CPU and Memory utilization, and all instances have been running for a different number of days. All instances come from different versions of a root AMI, and all instances have different numbers of sessions connected. Which instance will be the 1st to shut down?

- ○ The Instance with the fewest current sessions will terminate first.

- ○ The instance that has been running longest will terminate first.

- ⦿ The instance in AZ -C that has the oldest launch configuration will terminate first.

- ○ The instance in AZ -C that has been running the longest will terminate first.

- ○ The instance in AZ -C that has the least number of sessions will terminate first.

✔ Good job!
   True: Auto-scaling improves availability and will keep your infrastructure at the size needed to run your application.

> This was discussed in Lecture 45: **Autoscaling 101 - Lab**

Question 36:

Auto Scaling is a tool used to create fault-tolerant and cost-effective architectures.

- ⦿ True

- ○ False

Good job!
The visibility timeout controls how long a message is invisible in the queue while it is being worked on by a processing instance. This interval should not be confused with how long the message can remain in the queue.

> This was discussed in Lecture 81: **SQS**

Question 37:

What is the maximum VisibilityTimeout of an SQS message in a FIFO queue?

- ○ 14 days
- ○ 1 day
- ○ 1 hour
- ● 12 hours

5:02 PM
9/17/2017

Good job!
Correct: you should make use of an OS level logging tools such as iptables and log events to CloudWatch or S3.

> This was discussed in Lecture 39: **Cloud Watch EC2**

Question 38:

A client who is using EC2 believes that someone other than approved administrators is trying to gain access to her Linux web app instances, and she asks what sort of network access logging can be added to the system. Which of the following might you recommend?

- ○ Set up a traffic logging rule on the network firewall and direct the log to CloudWatch or S3.
- ○ Set up a Flow Log for the group of instances and forward them to CloudWatch.
- ● Make use of an OS level logging tools such as iptables and log events to CloudWatch or S3.
- ○ Use Event Log filters to trigger alerts that are forwarded to CloudWatch.

5:03 PM
9/17/2017

✔ **Good job!**
Gateway-Cached volumes retain a copy of frequently accessed data subsets locally. Cached volumes offer a substantial cost savings on primary storage and minimize the need to scale your storage on-premises.

Question 39:

Your company likes the idea of storing files on AWS. However, low-latency service of the last few days of files is important to customer service. Which Storage Gateway configuration would you use to achieve both of these ends?

○ Gateway-VTL

○ Gateway-Snapshot

🟢 Gateway-Cached

○ Gateway-Stored

✔ **Good job!**
With NAT instances, the most common oversight is forgetting to disable Source/Destination Checks.

Question 40:

You have a MySQl database running on an EC2 instance in a private subnet. You can connect via SSH, but you are unable to apply updates to the database server via the NAT instance. What might you do to remedy this problem?

🟢 Ensure that "Source/Destination Checks" is disabled on the NAT instance.

○ Ensure that the Security Group allows HTTP traffic.
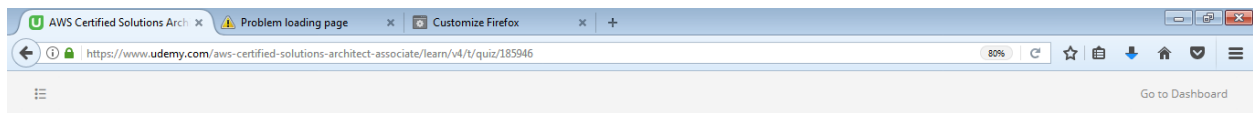
○ Replace the NAT instance.

○ Modify the Security Group to allow SSH traffic from anywhere.
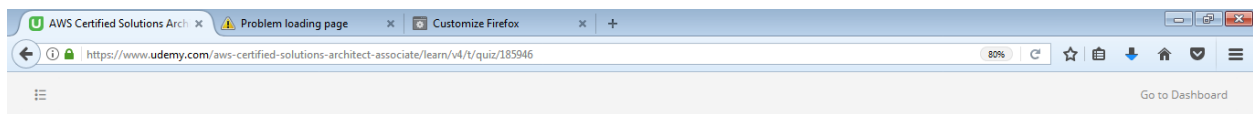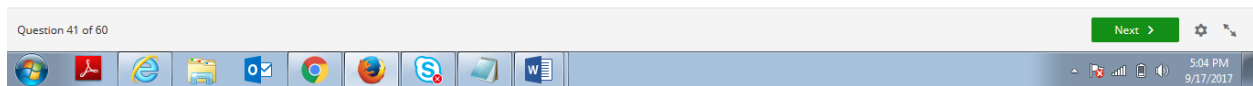
✓ **Good job!**
With SQS, you must implement your own application-level tracking, especially if your application uses multiple queues.

Question 41:

Amazon SQS keeps track of all tasks and events in an application.

○ True

◉ False

✓ **Good job!**
Correct: The "Owner" refers to the identity and email address used to create the account AWS account.

› This was discussed in Lecture 9: **IAM 101**

Question 42:

When editing permissions (policies and ACLs), to whom does the concept of the "Owner" refer?

○ The Owner is the IAM user who created the object via the GUI, CLI, or API.

○ The Owner is IAM Role used to create the object via the GUI, CLI, or API.

◉ The "Owner" refers to the identity and email address used to create the account AWS account.

○ There is no special concept of \"Owner\" in AWS.
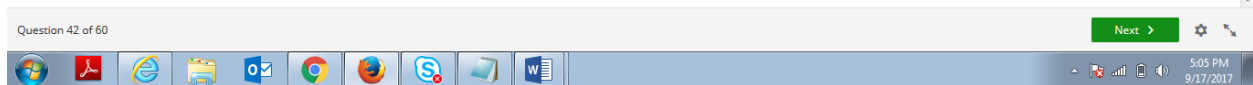
Good job!

SQS long polling doesn't return a response until a message arrives in the queue, reducing your overall cost over time. Short polling WILL return empty responses.

> This was discussed in Lecture 81: **SQS**

Question 43:

Your company provides an online image recognition service and uses SQS to decouple system components. Your EC2 instances poll the image queue as often as possible to keep end-to-end throughput as high as possible, but you realize that all this polling is resulting in both a large number of CPU cycles and skyrocketing costs. How can you reduce cost without compromising service?

🟢 Enable long polling by setting the ReceiveMessageWaitTimeSeconds to a number > 0.

○ Enable short polling by setting the ReceiveMessageWaitTimeMinutes to a number > 0.

○ Enable short polling by setting the ReceiveMessageWaitTimeSeconds to a number > 0.

○ Enable long polling by setting the ReceiveMessageWaitTimeMinutes to a number > 0.

⊘ Good job!

You should use S3 - RRS. You want to minimize your retrieval time, so you should not use Glacier (and there is no such thing as S3 - Provisioned IOPS.)

Question 44:

You need to store some easily-replaceable objects on S3. With quick retrieval times and and cost effectiveness in mind, which S3 storage class should you consider.

○ S3

🟢 S3 - RRS

○ Glacier

○ Snowball

○ S3 - Provisioned IOPS

The aim is to direct sessions to the host that will provide the correct language. GeoLocation is the best option because it is deterministic. While latency-based routing will usually direct the client to the correct host, connectivity issues with the US Regions might direct traffic to AP. In this case, the word \"ensure\" is operative: users MUST connect to the English-language site. Watch the wording in the exam: a requirement may be presented very casually in the wording of the question. However, understanding that requirement is mandatory if you're going to arrive at the correct answer.

Question 45:

You are a solutions architect working for a busy media company with offices in Japan and the United States. Your production environment is hosted both in US-EAST-1 and AP-NORTHEAST-1. Your European users have been connecting to the production environment in Japan, and are seeing the site in Japanese rather than in English. You need to ensure that they view the English language version. Which of the routing policies below could help you achieve this?

- ○ Weighted Routing

- ○ Simple Routing

- ● Geolocation

- ○ Failover Routing

✓ Good job!
Proactive Cyclic Scaling allows you to scale during the desired time window.

› This was discussed in Lecture 45: **Autoscaling 101 - Lab**

Question 46:

Although your application customarily runs at 30% usage, you have identified a recurring usage spike (>90%) between 8pm and midnight daily. What is the most cost effective way to scale your application to meet this increased need?

- ○ Manually deploy Reactive Event-based Scaling each night at 7:45.

- ● Use Proactive Cyclic Scaling to boost your capacity at a fixed interval.

- ○ Deploy additional EC2 instances to meet the demand.

- ○ Increase the size of the Resource Group to meet demand.

✓ **Good job!**
Proactive Cyclic Scaling allows you to scale during the desired time window.

> This was discussed in Lecture 45: **Autoscaling 101 - Lab**

Question 46:

Although your application customarily runs at 30% usage, you have identified a recurring usage spike (>90%) between 8pm and midnight daily. What is the most cost effective way to scale your application to meet this increased need?

○ Manually deploy Reactive Event-based Scaling each night at 7:45.

◉ Use Proactive Cyclic Scaling to boost your capacity at a fixed interval.

○ Deploy additional EC2 instances to meet the demand.

○ Increase the size of the Resource Group to meet demand.

✓ **Good job!**
Once a VPC is set to Dedicated hosting, it is not possible to change the VPC or the instances to Default hosting. You must re-create the VPC.

> This was discussed in Lecture 71: **Introduction & Overview**

Question 48:

Following advice from your consultant, you have configured your VPC to use Dedicated hosting tenancy. A subsequent change to your application has rendered the performance gains from dedicated tenancy superfluous, and you would now like to recoup some of these greater costs. How do you revert to Default hosting tenancy?

○ Create AMIs of all your instances and use them to create new instances using Default hosting.

○ Stop each instance and change the hosting attribute and restart.

◉ Create AMIs of all your instances. Create a new VPC with Default as the hosting tenancy attribute, and use them to create new instances using Default tenancy.

○ Change the hosting attribute and then restart the instance.

☑ Good job!
http://docs.aws.amazon.com/AmazonS3/latest/dev/UsingBucket.html

› This was discussed in Lecture 13: **S3 - 101**

Question 49:

Which URL format does S3 support in pointing to bucket "mynewbucket"?

◉ http://mynewbucket.s3-aws-region.amazonaws.com

○ http://mynewbucket.s3-aws-region.amazon.com

○ http://mynewbucket.s3-aws-region.aws.com

○ http://mynewbucket.s3.aws-region.amazonaws.com

Next ›   ⚙ ⤢

With the Resource Groups tool, you use a single page to view and manage your resources.

› This was discussed in Lecture 114: **Resource Groups & Tagging**

Question 50:

You are developing a web application, and you are maintaining separate sets of resources for your alpha, beta, and release environments. Each version runs on Amazon EC2 with an EBS volume. You use Elastic Load Balancing to manage traffic and Amazon Route 53 to manage your domain. What's the best way to check the health and status of all three groups of services simultaneously?

○ Access CloudTrail audits for each set or resources.

○ Maintain an open console for each set of resources.

◉ Create a resource group containing each set of resources and view all three environments from a single, group dashboard.

○ Use CLoudWatch to proactively monitor each environment.
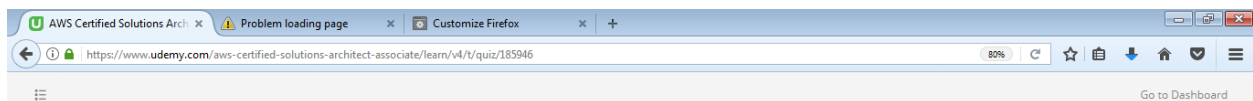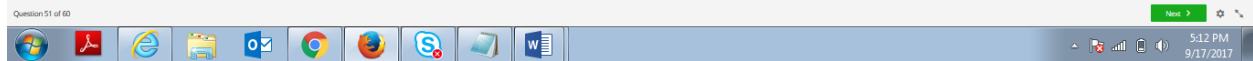
Next ›   ⚙ ⤢
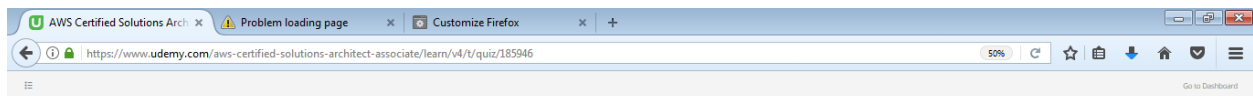
Good job!

Route53 has a security feature that prevents internal DNS from being read by external sources. The work around is to create a EC2 hosted DNS instance that does zone transfers from the internal DNS, and allows itself to be queried by external servers.

› This was discussed in Lecture 54: **DNS 101**

Question 51:

Your company has just purchased another company. As part of the merger, your team has been instructed to cross connect the corporate networks. You run all your confidential corporate services and internal DNS in a VPC. The merged company has all their confidential corporate services and Internal DNS on-premises. After establishing a Direct-Connect service between your VPC and their on-premise network, and confirming all the routing, firewalls, and authentication, you find that while you can resolve names against their DNS, the other company services is unable to resolve names against your DNS servers. Why might this be?

- ○ AWS Route53 is an Internet service, and the other company needs to do lookups and zone transfers via the Internet, not the Direct-Connect link.

- ○ You cannot use DNS in this way. You need to merge the zones under a parent zone registered with ICANN.

- ● By design, AWS DNS does not respond to requests originating from outside the VPC.

- ○ Route53 is not an industry standard DNS service, and zone transfers and name resolution must be done via a proprietary API.

- ○ The computers are not configured properly. You need to add the IP address of the AWS DNS servers into the DNS options of the IP stack.


Good job!

http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-instance-addressing.html

Question 52:

How is the Public IP address managed in an instance session via the instance GUI/RDP or Terminal/SSH session?

- ○ The Public IP address can be managed via the instance MetaData at http://169.254.169.254/latest/meta-data/local-ipv4.

- ○ The Public IP address can be managed via the instance MetaData at http://169.254.169.254/latest/meta-data/public-ipv4.

- ● The Public IP address is not managed on the instance: It is, instead, an alias applied as a network address translation of the Private IP address.

- ○ For security reasons, the Public IP address is a hidden value.
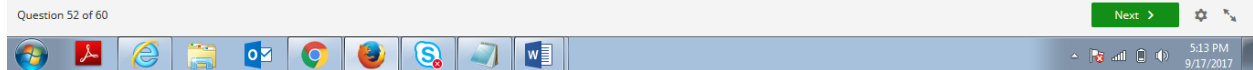
When considering network traffic, you need to understand the difference between storage traffic and general network traffic, and the ways to address each. The 10Gbps is a red-herring, in that the 500Mbps only occurs for short intervals, and therefore your sustained throughput is not 10Gbps. Whereever possible, use simple solutions such as spreading the load out rather than expensive high tech solutions.

Question 53:

You have been engaged by a company to design and lead a migration to an AWS environment. The team is concerned about the capabilities of the new environment, especially when it comes to avoiding bottlenecks. The design calls for about 20 instances (C3.2xLarge) pulling jobs/messages from SQS. Network traffic per instance is estimated to be around 500 Mbps at the beginning and end of each job. Which network configuration should you plan on deploying?

○ Deploy as a Placement Group as the aggregated burst traffic could be around 10 Gbps.

○ Activate EBS-Optimization on the instance to maximize network throughput.

○ Use a 2nd Network Interface to separate the SQS traffic for the storage traffic.

● Spread the Instances over multiple AZs to minimize the traffic concentration and maximise the fault tolerance.

✔ Good job!
http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/HowItWorks.DataConsistency.html

Question 54:

You are a consultant planning to deploy DynamoDB across three AZs. Your lead DBA is concerned about data consistency. Which of the following do you advise the lead DBA to do?

○ To ask the development team to implement a checksum algorithm to confirm that the data is consistent across all the AZs.

● To ask the development team to code for strongly consistent reads. As the consultant, you will advise the CTO of the increased cost.

○ To ask the development team to code a Lambda function to check data consistency after each write.

○ To ask the development team to code to check for a successful completion code (200) at the completion of every write.

✔ **Good job!**
VPC peering does not support edge to edge routing.

Question 55:

You successfully configure VPC Peering between VPC-A and VPC-B. You then establish an IGW and a Direct-Connect connection in VPC-B. Can instances in VPC-A connect to your corporate office via the Direct-Connect service, and connect to the Internet via the IGW?

○ Yes: VPC Peering is designed to route traffic between the VPCs.

○ Instances in VPC-A will be able to access the Internet, but not the corporate office.

◉ VPC peering does not support edge to edge routing.

○ Instances in VPC-A will be able to access the corporate office, but not the Internet.

Next ›

✔ **Good job!**
Poor timing of SQS processes can significantly impact the cost effectiveness of the solution.

› This was discussed in Lecture 81: **SQS**

Question 56:

You are reviewing Change Control requests, and you note that there is a change designed to reduce wasted CPU cycles by increasing the value of VisibilityTimeout attribute. What does this mean?

○ When the consumer instance polls for new work the SQS service will allow it to wait a certain time for a message to be available before closing the connection.

○ When a new message is added to the SQS queue, it will be hidden from consumer instances for a fixed period.

○ When the consumer instance polls for new work, the consumer instance will wait a certain time until it has a full workload before closing the connection.

○ While processing a message, a consumer instance can reset the message visibility by restarting the preset timeout counter.

◉ When a consumer instance retrieves a message, that message will be hidden from other consumer instances for a fixed period.

Next ›

✓ Good job!

Neither increasing the size of your EC2 instances nor maintaining additional EC2 instances is cost-effective, and pre-warming an ELB signifies that these spikes in traffic are predictable. The cost-effective solution to the unpredictable spike in traffic is to use SQS to decouple the application components.

> This was discussed in Lecture 81: **SQS**

Question 57:

You manage a Ruby on Rails application that lives on a cluster of EC2 instances. Your website occasionally experiences brief, strong, and entirely unpredictable spikes in traffic that overwhelm your EC2 instances' resources and freeze the application. As a result, you're losing recently submitted requests from end users. You use Auto Scaling to deploy additional resources to handle the load during spikes, but the new instances don't spin-up fast enough to prevent the existing application servers from freezing. Which of the following will provide the most cost-effective solution in preventing the loss of recently submitted requests?

○ Ask AWS support to pre-warm the Elastic Load Balancer.

◉ Use Amazon SQS to decouple the application components and keep the requests in queue until the extra Auto-Scaling instances are available.

○ Increase the size of your existing EC2 instances.

○ Keep a large EC2 instance on standby.

✓ Good job!

AWS does not copy launch permissions, user-defined tags, or Amazon S3 bucket permissions from the source AMI to the new AMI.

Question 58:

You're building out a single-region application in us-west-2. However, disaster recovery is a strong consideration, and you need to build the application so that if us-west-2 becomes unavailable, you can fail-over to us-west-1. Your application relies exclusively on pre-built AMI's. In order to share those AMI's with the region you're using as a backup, which process would you follow?

○ Create a new instance in us-west-1, making certain the instance in the failover region shares a security group with the instance in the default region.

◉ Copy the AMI from us-west-2, manually apply launch permissions, user-defined tags, and Amazon S3 bucket permissions of the default AMI to the new instance, and launch the instance.

○ Copy the AMI from us-west-2 to us-west-1 and launch as-is.

○ Nothing: AMIs are specific to an account, and they can be used anywhere.

Good job!
DynamoDB allows for the storage of large text and binary objects, but there is a limit of 400 KB.

Question 59:

At the monthly product meeting, one of the Product Owners proposes an idea to address an immediate shortcoming of the product system: storing a copy of the customer price schedule in the customer record in the database. You know that you can store large text or binary objects in DynamoDB. You give a tentative OK to do a Minimal Viable Product test, but stipulate that it must comply with the size limitation on the Attribute Name & Value. Which is the correct limitation?

- ○ The Name must not exceed 64 KB and the Value must not exceed 500 KB.
- ○ The Name must not exceed 64 KB and the Value must not exceed 400 KB.
- ● The combined Value and Name combined must not exceed 400 KB.
- ○ The Name must not exceed 64 KB and the Value must not exceed 255 KB.
- ○ The combined Value and Name combined must not exceed 255 KB.

Good job!
The most likely answer is that the EC2 instance was backed by an instance store volume. Instance store volumes are ephemeral, meaning that they exist ONLY in conjunction with their accompanying EC2 instance.

> This was discussed in Lecture 37: **AMI's - EBS Root Volumes vs Instance Store**

Question 60:

To save money, you quickly stored some data on the root volume of an EC2 instance and shut it down for the weekend. When you returned on Monday and restarted your instance, you discovered that your data was gone. Why might that be?

- ● The root volume was ephemeral, block-level storage. Data on an instance store volume is lost if an instance terminates.
- ○ The elastic block-level storage service failed over the weekend.
- ○ The instance failed to connect to the root volume on Monday.
- ○ The EBS volume was not large enough to store your data.