**AWS Assignment 1**

1. Describe how to link numerous sites to a VPC?

* Step 1: [Create a customer gateway](https://docs.aws.amazon.com/vpn/latest/s2svpn/SetUpVPNConnections.html#vpn-create-cgw)
* Step 2: [Create a target gateway](https://docs.aws.amazon.com/vpn/latest/s2svpn/SetUpVPNConnections.html#vpn-create-target-gateway)
* Step 3: [Configure routing](https://docs.aws.amazon.com/vpn/latest/s2svpn/SetUpVPNConnections.html#vpn-configure-route-tables)
* Step 4: [Update your security group](https://docs.aws.amazon.com/vpn/latest/s2svpn/SetUpVPNConnections.html#vpn-configure-security-groups)
* Step 5: [Create a Site-to-Site VPN connection](https://docs.aws.amazon.com/vpn/latest/s2svpn/SetUpVPNConnections.html#vpn-create-vpn-connection)
* Step 6: [Download the configuration file](https://docs.aws.amazon.com/vpn/latest/s2svpn/SetUpVPNConnections.html#vpn-download-config)
* Step 7: [Configure the customer gateway device](https://docs.aws.amazon.com/vpn/latest/s2svpn/SetUpVPNConnections.html#vpn-configure-customer-gateway-device)

1. What is the difference between EBS and Instance Store, and how do you explain it?

EBS volume is network attached drive which results in slow performance but data is persistent meaning even if you reboot the instance data will be there.

* Boot time is very fast usually less than a min
* Can be selected as Root Volume and attached as additional volumes
* EBS volume can be attached as additional volumes when the Instance is launched and even when the Instance is up and running.

Instance store instance store provides temporary block-level storage for your instance. This storage is located on disks that are physically attached to the host computer.

* Boot time is slower then EBS
* Can be selected as Root Volume and attached as additional volumes
* Instance store backed Instances can be of maximum 10GiB volume size
* The data in an instance store persists only during the lifetime of its associated instance.

1. What are the different types of load balancers available in AWS?
   1. Application Load Balancer
   2. Network Load Balancer
   3. Classic Load Balancer
   4. Gateway Load Balancers
2. How does AWS IAM make a profit?

IAM is an AWS service that is offered at no additional charge. You will be charged only for the use of other AWS services by your users.

1. Demonstrate the DynamoDB support mechanism.

Amazon DynamoDB is a fully managed NoSQL database service that provides fast and predictable performance with seamless scalability. DynamoDB lets you offload the administrative burdens of operating and scaling a distributed database so that you don't have to worry about hardware provisioning, setup and configuration, replication, software patching, or cluster scaling. DynamoDB also offers encryption at rest, which eliminates the operational burden and complexity involved in protecting sensitive data.

The following sections provide an overview of Amazon DynamoDB service components and how they interact.

* Core Components of Amazon DynamoDB
* DynamoDB API
* Naming Rules and Data Types
* Read Consistency
* Read/Write Capacity Mode
* Table Classes
* Partitions and Data Distribution

To use the Amazon DynamoDB web service:

1. Sign up for AWS.
2. Get an AWS access key (used to access DynamoDB programmatically).

*If you plan to interact with DynamoDB only through the AWS Management Console, you don't need an AWS access key, and you can skip ahead to Using the Console.*

1. Configure your credentials (used to access DynamoDB programmatically).