**AWS Assignment 1**

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

**Answer:**

We can link numerous sites to our AWS VPC with the below steps:

* Create a transit gateway, then connect your VPC to your site-to-site VPN.
* Create a transit gateway route table and map your VPC to it.
* Create a second transit gateway route table and associate your VPN connection association to it.
* Forward routes from your VPC and VPN in both route tables.

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

**Answer:**

|  |  |  |
| --- | --- | --- |
| **Differentiator** | **Instance Store** | **EBS** |
| **Storage Type** | Ephemeral Storage which is temporary block-level storage and limited to only EC2 instances | Network attached drive which is External Storage that can be used by multiple AWS services as storage like EC2, RDS and other services |
| **Data Retention After EC2 is terminated/stopped** | Instance store volumes is not persistent through instance stops, terminations, or hardware failures. | EBS volumes preserve their data through instance stops and terminations |
| **Backup** | Not Possible | Backup/Snapshots are possible and could be used to restore |
| **Detachable** | Instance Store are not detachable | EBS can be removed from one instance and reattached to another |
| **Encryption** | Not Possible | Full volume encryption is possible |
| **Boot Time** | Takes less than 5 minutes | Less than a minute |

1. What are the different types of load balancers available in AWS?

**Answer:**

In AWS, we have 4 types of load balancers available

1. Application Load Balancer
2. Network Load Balancer
3. Classic Load Balancer
4. Gateway Load Balancers
5. How does AWS IAM make a profit?

**Answer:** Identity and Access Management services is offered at no additional charge to AWS Customers. Customers must only pay for the services they use and are chargeable according to AWS pricing.

1. Demonstrate the DynamoDB support mechanism.

**Answer:** DynamoDB supports key-value pair data, supports very high reads and writes, auto-sharding, low-latency, support high durability. DynamoDB does not support complex-queries and joins, real-time analytics on historic data. DynamoDB supports global tables to keep DynamoDB tables in sync across AWS Regions.