AWS Assignment 1

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

Ans - The following are the key concepts for Site-to-Site VPN:

- **VPN connection**: A secure connection between your on-premises equipment and your VPCs.
- **VPN tunnel**: An encrypted link where data can pass from the customer network to or from AWS. Each VPN connection includes two VPN tunnels which you can simultaneously use for high availability.
- **Customer gateway**: An AWS resource which provides information to AWS about your customer gateway device.
- **Customer gateway device**: A physical device or software application on your side of the Site-to-Site VPN connection.
- **Virtual private gateway**: The VPN concentrator on the Amazon side of the Site-to-Site VPN connection. You use a virtual private gateway or a transit gateway as the gateway for the Amazon side of the Site-to-Site VPN connection.
- **Transit gateway**: A transit hub that can be used to interconnect your VPCs and on-premises networks. You use a transit gateway or virtual private gateway as the gateway for the Amazon side of the Site-to-Site VPN connection.

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

Ans - The instance store is ideal for temporary storage, because the data stored in instance store volumes is not persistent through instance stops, terminations, or hardware failures.

For data you want to retain longer, or if you want to encrypt the data, use Amazon Elastic Block Store (Amazon EBS) volumes instead. EBS volumes preserve their data through instance stops and terminations, can be easily backed up with EBS snapshots, can be removed from one instance and reattached to another, and support full-volume encryption.

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

Ans- AWS supports the following types of load balancers:

a) Application Load Balancer
b) Network Load Balancer
c) Gateway Load Balancers.

4. How does AWS IAM make a profit?

Ans - 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.

5. Demonstrate the DynamoDB support mechanism.

Ans - 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

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