Assignment -5

1. Describe the Amazon C4 instance.

C4 instances are optimised for compute-intensive workloads and deliver very cost-effective high performance at a low price per compute ratio.

C4 instance consist of different type such as c4.large,c4.xlarge,c42xlarge,c4.4xlarge,c4.8xlarge

Instances have the following specs

Virtual CPU : 2-36

Memory : 3.75-60(GiB)

Instance Storage : EBS Only

Network Performance : upto 10 Gigabit

Use Cases

1.Web server

2.Batch Processing , Video encoding

3.MMO Gaming

1. What is ElastiCache?

Amazon ElastiCache is a fully managed, in-memory caching service supporting flexible, real-time use cases. You can use ElastiCache for caching which accelerates application and database performance, or as a primary data store for use cases that don't require durability like session stores, gaming leaderboards, streaming, and analytics. ElastiCache is compatible with Redis and Memcached.

Use Cases

### Accelerate application performance.

### Ease backend database load

### Build low-latency data stores

1. Explain SimpleDB.

Amazon SimpleDB is a highly available [NoSQL](https://aws.amazon.com/nosql/) data store that offloads the work of database administration.Amazon SimpleDB is an Amazon Web Services (AWS) component that works in conjunction with Amazon Simple Storage Service (Amazon S3) and Amazon Elastic Compute Cloud (EC2).

Amazon SimpleDB facilitates cloud storage, processing and query processing. The service is easy to use and provides most core traditional database features, including real-time processing and simplified structured data queries.

Amazon SimpleDB features include:

* Flexibility
* Efficiency
* Scalability
* Easy integration
* Cost effective

Use Cases

### Logging

### Online Games

1. Mention the benefits of WAF.

AWS WAF is a web application firewall that lets you monitor the HTTP and HTTPS requests that are forwarded to CloudFront, and lets you control access to your content. ... After you create an AWS WAF web access control list (web ACL), create or update a web distribution to associate the distribution with the web ACL.

A WAF protects your web apps by filtering, monitoring, and blocking any malicious HTTP/S traffic travelling to the web application, and prevents any unauthorised data from leaving the app. It does this by adhering to a set of policies that help determine what traffic is malicious and what traffic is safe

1. Explain Elastic Block is a store that sells elastic blocks.

Amazon Elastic Block Store (EBS) is a block storage system used to store persistent data. Amazon EBS is suitable for EC2 instances by providing highly available block level storage volumes. It has different types of volume, i.e. General Purpose (SSD), Provisioned IOPS (SSD), and Magnetic. These volume types differ in performance, characteristics, and cost.

## Amazon EBS Benefits

* Reliable and secure storage
* Higher performance
* Easy data backup