

AWS Assignment 5

1. Describe the Amazon C4 instance.

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

Features:

- a) High frequency Intel Xeon E5-2666 v3 (Haswell) processors optimized specifically for EC2
- b) Default EBS-optimized for increased storage performance at no additional cost
- c) Higher networking performance with Enhanced Networking supporting Intel 82599 VF
- d) Requires Amazon VPC, Amazon EBS and 64-bit HVM AMIs.

2. What is ElastiCache?

Ans - 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.

3. Explain SimpleDB.

Ans- Amazon SimpleDB is a highly available NoSQL data store that offloads the work of database administration. Developers simply store and query data items via web services requests and Amazon SimpleDB does the rest.

Unbound by the strict requirements of a relational database, Amazon SimpleDB is optimized to provide high availability and flexibility, with little or no administrative burden. Behind the scenes, Amazon SimpleDB creates and manages multiple geographically distributed replicas of your data automatically to enable high availability and data durability. The service charges you only for the resources actually consumed in storing your data and serving your requests. You can change your data model on the fly, and data is automatically indexed for you. With Amazon SimpleDB, you can focus on application development without worrying about infrastructure provisioning, high availability, software maintenance, schema and index management, or performance tuning.

4. Mention the benefits of WAF.

AWS WAF is a web application firewall that helps protect your web applications or APIs against common web exploits and bots that may affect availability, compromise security, or consume excessive resources. AWS WAF gives you control over how traffic reaches your applications by enabling you to

create security rules that control bot traffic and block common attack patterns, such as SQL injection or cross-site scripting.

Benefits of the WAF:

- Agile protection against web attacks
- Save time with managed rules
- Improved web traffic visibility
- Ease of deployment & maintenance
- Easily monitor, block, or rate-limit bots
- Security integrated with how you develop applications

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

Ans - Amazon Elastic Block Store (Amazon EBS) provides block level storage volumes for use with EC2 instances. EBS volumes behave like raw, unformatted block devices. You can mount these volumes as devices on your instances. EBS volumes that are attached to an instance are exposed as storage volumes that persist independently from the life of the instance. You can create a file system on top of these volumes, or use them in any way you would use a block device (such as a hard drive). You can dynamically change the configuration of a volume attached to an instance.

You create an EBS volume in a specific Availability Zone, and then attach it to an instance in that same Availability Zone. To make a volume available outside of the Availability Zone, you can create a snapshot and restore that snapshot to a new volume anywhere in that Region. You can copy snapshots to other Regions and then restore those to new volumes there, making it easier to leverage multiple AWS Regions for geographical expansion, data center migration, and disaster recovery.