1. Describe the Amazon C4 instance.

Ans

C4 instances are available in five sizes, offering up to 36 vCPUs. C4 instances are based on Intel Xeon E5-2666 v3 (codename Haswell) processors that run at a base frequency of 2.9 GHz, and can deliver clock speeds as high as 3.5 GHz with Intel ® Turbo Boost. Each C4 instance type is EBS-optimized by default and at no additional cost. This feature provides 500 Mbps to 4,000 Mbps of dedicated throughput to EBS above and beyond the general purpose network throughput provided to the instance. C4 instances also provide Enhanced Networking for higher packet per second (PPS) performance, lower network jitter, and lower network latencies.

1. 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](https://aws.amazon.com/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.



1. Explain SimpleDB.

Ans

Amazon SimpleDB is a highly available [NoSQL](https://aws.amazon.com/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.

1. Mention the benefits of WAF.

Ans

A WAF protects your web apps by filtering, monitoring, and blocking any malicious HTTP/S traffic traveling to the web application, and prevents any unauthorized 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. Just as a proxy server acts as an intermediary to protect the identity of a client, a WAF operates in similar fashion but in the reverse—called a [reverse proxy](https://www.f5.com/services/resources/glossary/reverse-proxy)—acting as an intermediary that protects the web app server from a potentially malicious client.

WAFs can come in the form of software, an appliance, or delivered as-a-service. Policies can be customized to meet the unique needs of your web application or set of web applications. Although many WAFs require you update the policies regularly to address new vulnerabilities, advances in machine learning enable some WAFs to update automatically. This automation is becoming more critical as the threat landscape continues to grow in complexity and ambiguity.

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

Ans

AWS Elastic Block Store (EBS) is Amazon’s block-level storage solution used with the EC2 cloud service to store persistent data. This means that the data is kept on the AWS EBS servers even when the EC2 instances are shut down. EBS offers the same high availability and low-latency performance within the selected availability zone, allowing users to scale storage capacity at low subscription-based pricing model. The data volumes can be dynamically attached, detached and scaled with any EC2 instance, just like a physical block storage drive. As a highly dependable cloud service, the EBS offering guarantees 99.999% availability.

AWS EBS is different from the standard EC2 Instance Store, which merely provides temporary storage available on the physical EC2 host servers. The EC2 Instance Store is useful for temporary data content such as caches, buffers or files that are replicated across the hosted servers. For data that needs to be available persistently, regardless of the operating life of an EC2 instance