30 Cloud Computing Interview Questions & Answers to Nail Your Next Interview

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Are you considering a career in Cloud Computing? Cloud computing has revolutionized the way we work and play. With every business turning to Cloud services, there's a huge demand for Cloud professionals across industries. Now is the best time to pursue a career in the Cloud Computing domain. This article is a Q&A guide on how to answer Cloud Computing interview questions.

Cloud computing allows users to access data, programs, and applications whenever needed via the internet, without the need for a physical server. Cloud computing jobs range from cloud architects, network engineers, and developers to data scientists, security experts, product managers, and many more.

Here are some of the most commonly asked Cloud Computing interview questions and how to answer them. We have arranged the Q&A's in three categories: Basic, intermediate, and advanced Cloud Computing interview questions.

Basic Cloud Computing interview questions

1. What is Cloud Technology?

A Cloud is a virtual space on the internet where users can store digital resources like software, applications, and files. Cloud technology allows computing services including servers, networks, storage, databases, software, analytics, and intelligence to be delivered over the internet. Users can share digital resources across the internet without the restriction of physical location.

2. What are the main features of Cloud Computing?

The main features of cloud computing are:

- Agility – Huge amounts of computing resources can be provisioned in minutes
- Location Independence – Resources can be accessed from anywhere with an internet connection
- Better Storage – with cloud storage, there are no limitations of capacity like in physical devices
- Multi-Tenancy – resource sharing is possible among a large group of users
- Reliability – data backup and disaster recovery become easier and less expensive with cloud computing
- Scalability – Cloud allows businesses to scale up and scale down as and when needed

3. What are Cloud Delivery Models?

Cloud Delivery models are categories of cloud computing, including:

Cloud Delivery models are categories of cloud computing, including:

- Infrastructure as a Service (IaaS) – the delivery of services like servers, storage, networks, operating systems on request basis.
- Platform as a Service (PaaS) – it combines IaaS with an abst services, software development, deployment tools. PaaS help web or mobile apps on a cloud.
- Software as a Service (SaaS) – software applications are delivered on-demand, in a multi-tenant model
- Function as a Service (FaaS) – allows end-users to build and run app functionalities on a serverless architecture

4. What are the different versions of the Cloud?

There are different models to deploy cloud services:

- Public Cloud – the set of computer resources like hardware, software, servers, storage, etc., owned and operated by third-party cloud providers for use by businesses or individuals.
- Private Cloud – a set of resources owned and operated by an organization for use by its staff, partners, or customers.
- Hybrid Cloud – a combination of public and private cloud services.

5. Name the main constituents of the Cloud ecosystem.

- Cloud Consumers
- Direct Customers
- Cloud Service Providers

Cloud service providers are the commercial vendors or companies that develop their own cloud services capabilities and sell the services to cloud consumers.

7. Who are Direct Customers?

Direct customers are users who often use the services developed by your business within a cloud environment. They do not know if you're using a public or private cloud.

8. Who are cloud consumers?

Cloud consumers are the individuals or groups within a business unit that use the various cloud services provided to get a task done.

9. Describe the Cloud Computing Architecture

Cloud computing architecture is divided into:

- Front end – used by the client and consisting of client-side interfaces and applications needed to access cloud computing platforms. It includes web servers like Chrome, Firefox, tablets, mobile devices.
- Back end – used by a service provider to manage all resources needed for providing Cloud computing services. Includes data storage, virtual machines, servers, deploying models, etc.

The different components of the cloud architecture are:

- Client Infrastructure – provides GUI for cloud interaction
- Application – software or platform
- Service – a type of service accessed

10. What are the Cloud Storage Levels?

The common levels of cloud data storage are:

- Files

- Blocks
- Datasets
- Objects

Intermediate Cloud Computing Interview Questions

11. Name the serverless components in cloud computing.

Serverless components enable users to create applications without the complexity of managing physical infrastructure. Codes can be written without the provision for a server.

Serverless machines tend to virtual machines and container management.

Serverless components also take care of multi-threading hardware allocation.

12. List the advantages and disadvantages of serverless computing.

Advantages:

- Cost-effective
- Simplified operations
- Increases Productivity
- Scalable

Disadvantages:

- Can cause latency in response
- Not suited for high-computing operations due to resource limitations
- Not very secure
- Debugging can be challenging

13. What are cloud-enabling technologies?

- Broadband Networks
- Virtualization
- Data Centre
- Web Technology
- Multitenant Technology
- Service Technology

14. Define microservices.

Microservices is the process of creating applications that include code that is independent of each other and of the inherent developing platform.

15. Discuss the importance of microservices for a true cloud environment.

Microservices provide benefits like:

- A microservice is designed to serve a specific purpose, so application development becomes simple.
- It is easier and faster to make code changes using microservices because the changes are smaller and simpler compared to a complex integrated application.
- They are scalable; hence easy to deploy additional instances or change of service.
- A microservice is fully tested and validated. Thus, developers can presume the integrity of new applications without continual testing.

16. What is a cloud usage monitor?

It is an autonomous lightweight software program that gathers and processes IT resource usage

data. These monitors can exist in various formats like Monitoring Agent, Resource Agent, Polling Agent.

17. How does the monitoring agent monitor cloud usage?

A monitoring agent is an intermediary and event-driven program and exists along the communication paths. It monitors and analyses dataflows and is used to measure network traffic and message metrics.

18. How do resource agents monitor cloud usage?

A resource agent is a processing module used to collect usage data through event-driven interactions with resource software. It is used to check usage metrics depending on pre-defined observable events.

19. How does a polling agent monitor cloud usage?

A polling agent refers to a processing module that assembles data related to cloud service usage by polling IT resources. It can also timely monitor the It resource status.

Advanced Cloud Computing Interview Questions

20. What are Cloud-native applications?

It is a software framework characterized by containers, microservices, dynamic orchestration, and continued software delivery. Every part of a cloud-native publication contains its individual container and is dynamically coordinated with other containers.

21. How does cloud-native foundation define Cloud-native applications?

Cloud-native applications are defined as:

- Container packaged – meaning standard container packaging format used to package applications.
- Dynamically managed – standard format to discover, deploy and scale applications.
- Microservices oriented – decompose applications into modular, independent services

22. What is Edge Computing?

Unlike Cloud, Edge computing concerns with physical location and latency issues. Edge is very common in IoT scenarios.

23. What is API Gateway?

API gateway allows a number of APIs to come together as a single gateway for a uniform user experience. The API gateway centrally manages the APIs and provides enterprise-level security. The gateway handles common tasks like statistics, rate limiting, user authentication.

24. What is Rate Limiting?

A strategy to limit network traffic by putting a limit on how often someone can repeat an action in a certain timeframe. Rate limiting can help eliminate malicious activities and bot impacts.

25. What is encapsulation?

In cloud computing, encapsulation means packaged software code along with all of its dependencies, such that it can consistently run both on clouds and on-premises.

26. Name the different data centers deployed for cloud computing.

- Containerized Datacentres
- Low-Density Datacentres

27. What are Containerised Datacentres?

These are traditional data centers that allow a great deal of customization with servers, mainframes, and other resources.

28. What are Low-Density Datacentres?

These data centers are optimized to provide a high level of perfo
constraint is removed, there is high density in these data centers

29. Name some issues with Cloud Computing.

- Security Issues
- Legal and Compliance Issues
- Data Management Issues
- Performance and Quality of Service Related Issues

30. How Resource Replication takes place in Cloud Computing?

Resource Replication involves creating multiple instances of the same IT resource. It is usually done when there's a need to enhance the availability and performance of a resource. Virtualization technology helps implement resource replication.

Conclusion

We hope this list of Cloud Computing interview questions will be helpful to prepare you for your next Cloud Computing interview. For a more in-depth understanding of cloud technologies and their ever-expanding applications, you can sign up for Simplilearn's top-rated Cloud Computing courses and equip yourself with the skills required to build a rewarding career in the field of cloud computing. Register with us today!

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