

1. What is a server?

A server acts as a dedicated hub for managing network resources and catering to client requests.

2. What is the purpose of a domain name?

Domain names serve as user-friendly identifiers for accessing internet resources, offering an intuitive alternative to numerical IP addresses. They are integral to the Domain Name System (DNS) for mapping human-readable names to IP addresses.

3. Which DNS record type corresponds to "www" in www.foobar.com?

The "www" subdomain typically corresponds to an "A" record (Address record) in DNS.

4. What role does the web server play?

The web server facilitates communication between clients (such as web browsers) and the underlying application or website. It stores, processes, and delivers web content to users.

5. What role does the application server fulfill?

The application server executes the business logic of a web application, handles dynamic content generation, and interfaces with databases or other backend services.

6. What is the function of the database?

The database is responsible for storing, retrieving, and updating data/information used by the web application.

7. How does the server communicate with the user's computer requesting the website?

The server communicates with the user's computer using the Hypertext Transfer Protocol (HTTP) or its secure variant, HTTPS.

ISSUES

1. Single Point of Failure (SPOF)

SPOF (Single Point of Failure) denotes a component within a system whose failure can lead to system-wide unavailability or significant performance degradation.

2. Downtime during maintenance (e.g., restarting the web server for deploying new code)

Downtime during maintenance refers to the temporary unavailability of a web server when it undergoes tasks such as deploying updates or restarting for configuration changes, resulting in a brief interruption of services.

3. Inability to scale with high traffic volume

The incapability to scale in response to surges in incoming traffic indicates that the web infrastructure lacks the capacity to handle increased demand efficiently, potentially leading to performance issues or service disruptions.