

# SPPU-TE-COMP-CONTENT - KSKA Git

Q1. What is DNS? What is the main purpose of DNS server?

Ans. The alias address has to be mapped to the IP address.

- For this an application program needs service of another entity.
  - This entity is an application program called DNS.
- main purpose:-

- The main purpose of DNS is to translate a domain name into the appropriate IP address.
- This is done by looking up the DNS records of the requested domain.
- There are typically eight steps in this DNS lookup process that follow the information path from the originating web browser to the DNS server and back again.

Q2. What are DNS zones?

Ans. A DNS zone is a logical part of the Domain Name System (DNS) that an organization or administrator manages.

- It's a space for managing DNS components, like authoritative nameservers, ~~etc~~ in
- Purpose:
- DNS zone help with DNS management and orchestration, and they can distribute workloads across name servers.
  - They can also help ease the administrative burden of a domain.

→ Structure:

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- A DNS zone starts at a domain on the DNS namespace tree and can extend down into subdomains.
- eg: A domain like cloudflare.com could have a zone for the domain itself and separate zones for subdomains like support.cloudflare.com.

## → Storage:

- DNS zone content can be stored on a file or in Active Directory Domain Services (AD DS).
- When stored on a file, the server has one writeable copy and multiple read-only copies called secondary zones.

## → Records:

- Each line on a DNS zone file contains information for a single record.
- A record typically includes a record name, record value, and record TTL.

Q3. What is round robin DNS

Ans. • Round-robin DNS is a load balancing technique where the balancing is done by a type of DNS server called an authoritative nameserver, rather than using a dedicated piece of load-balancing hardware.

- Round-robin DNS can be used when a website or service has their content hosted on several redundant web servers.
- When the DNS authoritative nameserver is queried for an IP address, the server hands

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out a different address each time, operating on a rotation.

- This is particularly useful when the redundant web servers are geographically separated, making traditional load-balancing difficult.
- Round-robin is known for its ease of implementation, but it also has strong drawbacks.
- A DNS server with round-robin enabled will have multiple different A records, each with the same domain name but a different IP address.