

ALX Web Infrastructure Tasks:

task0:

1. **Server:** A server is a computer or software system that provides data or services to other computers, known as clients, over a network.
 2. **Role of Domain Name:** A domain name serves as a human-readable label that represents the numeric IP address of a server hosting a website or service on the internet.
 3. **DNS Record for "www" in www.foobar.com:** The "www" in www.foobar.com is typically a CNAME (Canonical Name) record, which is an alias for the domain's primary hostname.
 4. **Role of Web Server:** A web server delivers web pages and other content to clients (web browsers) over the internet using HTTP or HTTPS protocols.
 5. **Role of Application Server:** An application server hosts and manages software applications, providing services such as data access, business logic, and application security to clients over a network.
 6. **Role of Database:** A database stores and manages structured sets of data, allowing efficient retrieval, updating, and management of information for applications and users.
 7. **Server Communication with User's Computer:** The server communicates with the user's computer over the internet using protocols such as HTTP or HTTPS, which allow for the transfer of web pages, data, and other resources.
-

1. **SPOF (Single Point of Failure):** The infrastructure relies on a single point that, if it fails, can bring down the entire system. This lack of redundancy increases the risk of downtime and can severely impact the availability of services.
2. **Downtime during Maintenance:** Deploying new code or performing maintenance tasks often requires restarting components such as the web server. This can lead to downtime, disrupting service availability and potentially causing inconvenience to users.
3. **Scalability Limitations:** The infrastructure struggles to handle high volumes of incoming traffic efficiently. Without the ability to scale horizontally or vertically, the system may become overwhelmed during peak usage periods, leading to performance issues or even service outages.

References

[1st Reference](#)

[2nd Reference](#)

[3rd Reference](#)

