0. Simple web stack

1. **What is a server?**

Server is a dedicated computer for managing network resources and providing services to the clients.

2. **What is the role of the domain name?**

Domain names provide a user-friendly way to identify and access resources on the internet. For example instead of using numerical IP addresses which are less intuitive for people. Used for mapping the IP addresses in the DNS.

3. **What type of DNS record www is in www.foobar.com**

“A” record (Address record)

4. **What is the role of the web server**

Handling the communication between clients (web browsers) and the underlying application or website.
Display website content through storing, processing and delivering web pages to users.

5. **What is the role of the application server**

The application server is responsible for executing and processing the business logic of a web application, handling dynamic content generation, and interfacing with databases or other backend services.

6. **What is the role of the database**

To store, retrieve, and update information / data.

7. **What is the server using to communicate with the computer of the user requesting the website**

The server uses the Hypertext Transfer Protocol (HTTP) or its secure variant, HTTPS, to communicate with the computer of the user requesting the website.

ISSUES

SPOF

SPOF (Single Point of Failure) refers to a component in a system that, if it fails, can cause the entire system or service to become unavailable or experience a significant degradation in performance.

Downtime when maintenance needed (like deploying new code web server needs to be restarted)

Downtime during maintenance refers to the period when a web server is temporarily taken offline, often due to tasks like deploying new code, software updates, or configuration changes that require the server to be restarted, resulting in a temporary interruption of services.

Cannot scale if too much incoming traffic

The inability to scale with high incoming traffic means that the web infrastructure is not equipped to handle increased demand effectively, leading to performance issues or potential service disruptions when the volume of incoming traffic exceeds the capacity of the existing system.