1) **What is a server ? :** it is a computer or system that is dedicated to managing network resources and providing services to other computers, known as clients, in the same network.

2) **What is the role of a domain name ? :** it is a human-readable label that serves as an address for resources on the Internet. It simplifies access to websites and translates to numeric IP addresses via DNS for server location. example : www.google.com

3) **What type of DNS record www is in www.foobar.com:** it is a CNAME

4) **What is the role of the web server:** it facilitates the hosting and delivery of web content. When a browser requests a file, the web server, through HTTP, retrieves and sends the file.

5) **What is the role of the application server ? :** An application server separates business logic from display in a web application. It handles tasks such as application hosting, security, communication, and resource management.

6) **What is the role of the database ? :** it organizes and stores structured data systematically. Database is used to process, retrieve, and analyze data.

7) **What is the server using to communicate with the computer of the user requesting the website:** it uses HTTP after translating the domain name with DNS.

Issues:
- **SPOF:** All the components, including the web server, application server, application files, and database, are hosted on a single server.As a result, if this server goes down for any reason, the entire web infrastructure will be inaccessible

- **Downtime when maintenance needed :** the entire web infrastructure will not be available during the maintenance time. This would cause huge financial losses having the users not being able to access the website and harming the marketing of the brand
- **Cannot scale if too much incoming traffic :** a one server application can't efficiently handle high incoming traffic.This results in server overload. This would be solved by implementing a load balancer to evenly distribute incoming traffic across multiple servers..