

- **What is a server?**
- a computer hardware or software that provides functionality for other programs or devices
- **What is the role of the domain name?**
-to identify Internet resources with a text-based that is easier to human to remember than the numerical IP.
- **What type of DNS record www is in www.foobar.com?**
-CNAME record.
- **What is the role of the web server?**
- A Web server deals with sending HTML for display in a Web browser over the HTTP protocol, it passes the HTTP request to the program to handle it and it responds with an HTTP response, the web server is providing an environment in which the server-side program can execute and pass back the generated responses
- **What is the role of the application server**
-an application server deals with the dynamic content of the page.
- **What is the role of the database**
-control the data to be easily accessed, managed, modified, updated, controlled, and organized.
- **What is the server using to communicate with the computer of the user requesting the website**
-it receives an HTTP request and response over HTTP.

issues are with this infrastructure

- **SPOF:**
-We have only one server, one DB, one web server and one app server!, it takes only one fault to cause an entire system to stop operating.
- **Downtime when maintenance needed:**
-The system relies on a single server. When attempting to update the code, improve the server, or add any service that requires a restart, the website will be temporarily unavailable during the restart period, which may be extended in the event of encountering other issues.
- **Cannot scale if too much incoming traffic**
-The domain is pointing to one IP, if there is a high volume of incoming traffic happens the server will be extremely slow and it might go down.