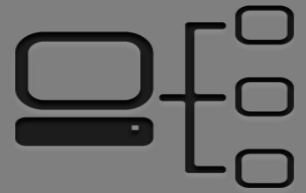
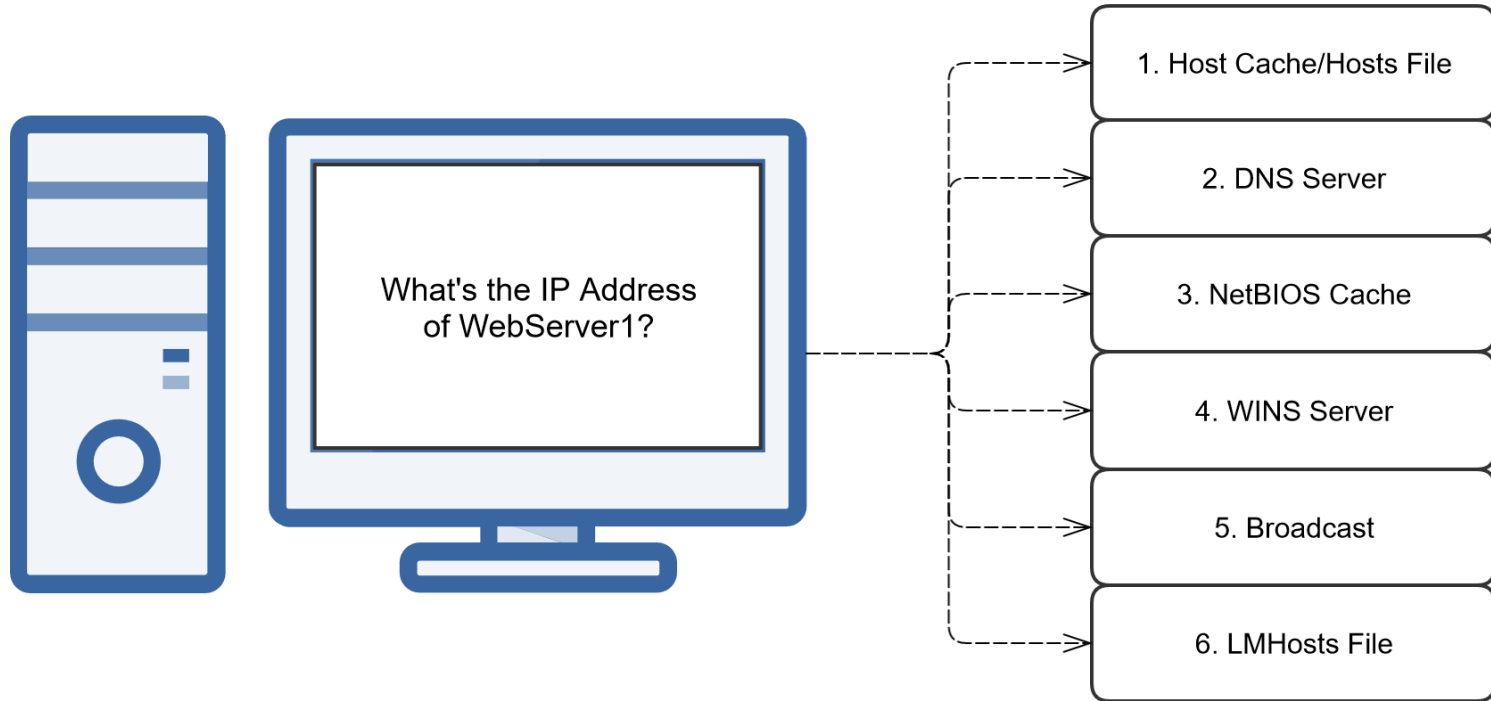
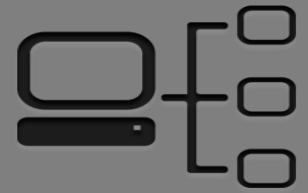


Domain Name System (DNS)

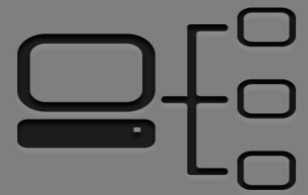


- DNS resolves host names to IP addresses (and vice versa).
 - DC1.alnet.com → 192.168.10.5
 - <https://www.udemy.com> → 104.16.66.85
- Clients send name resolution requests to a DNS server and it responds with the IP address.
- The client can then use the IP address as the destination address in a data packet.

The Name Resolution Process



Common DNS Records



| Record Type | Description |
|----------------------|--|
| A (host) | Resolves a domain name to an IPv4 address. |
| AAAA (host) | Resolves a domain name to an IPv6 address. |
| PTR (pointer) | Resolves an IP address to a domain name. |
| CNAME (alias) | Resolves one domain name to another domain name, which allows multiple domain names to be resolved to the same IP address. |
| MX | Used for mail exchange servers (email servers). |
| SRV | Required by Active Directory (AD) to locate servers running specific services. |
| NS | Identifies DNS name servers. |