



**SNS COLLEGE OF TECHNOLOGY**  
**Coimbatore-35**  
**An Autonomous Institution**



Accredited by NBA – AICTE and Accredited by NAAC – UGC with  
'A++' Grade  
Approved by AICTE, New Delhi & Affiliated to Anna University,  
Chennai

**19ECT301-COMMUNICATION NETWORKS**  
**III YEAR/ V SEMESTER**

**UNIT 3- TRANSPORT LAYER & APPLICATION**  
**LAYER**

**TOPIC– DNS (Domain Name server)**



# INTRODUCTION



Reference: <https://kinsta.com/wp-content/uploads/2018/05/what-is-dns.png>



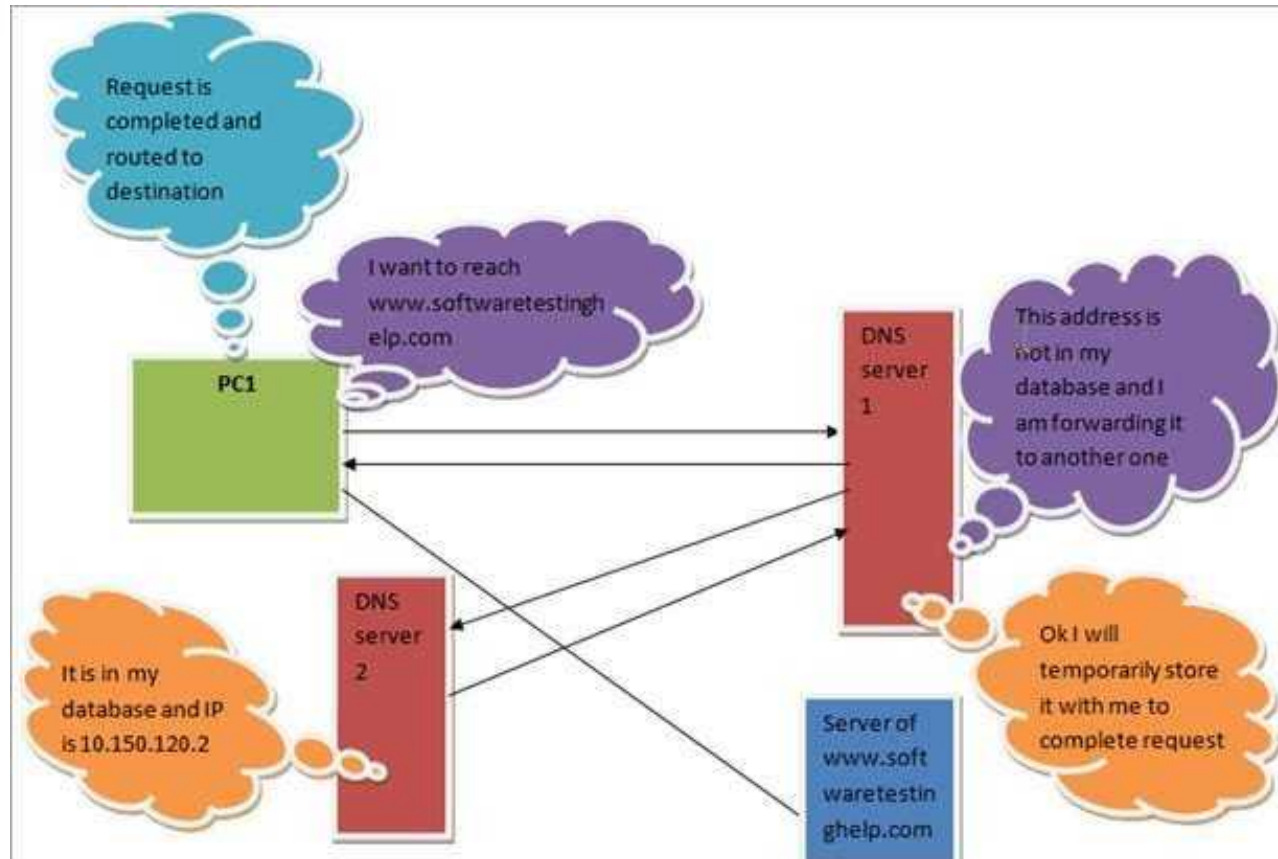
## DNS ROLE



- ❑ DNS, or the Domain Name System, **translates human readable domain names (for example, `www.amazon.com`) to machine readable IP addresses (for example, `192.0.2.44`).**
- ❑ Thus DNS came into the role and **provides the host with the mapped IP address in respect to the domain name of the website.**



# DNS WORKING



Source: <https://www.softwaretestinghelp.com/wp-content/qa/uploads/2019/01/DNS-communication.png>



## PRIMARY SERVER



- ❑ The *primary server* is the **authoritative server** for the zone.
- ❑ All **administrative tasks associated** with the zone (such as creating subdomains within the zone, or other similar administrative tasks) must be performed on the primary server.



## SECONDARY SERVER



- ❑ Secondary servers are backup DNS Servers. Secondary servers receive all of their zone files from the primary server zone files in a zone transfer
- ❑ Multiple secondary servers can exist for any given zone — as many as necessary to provide load balancing, fault tolerance, and traffic reduction.



## CACHING SERVER



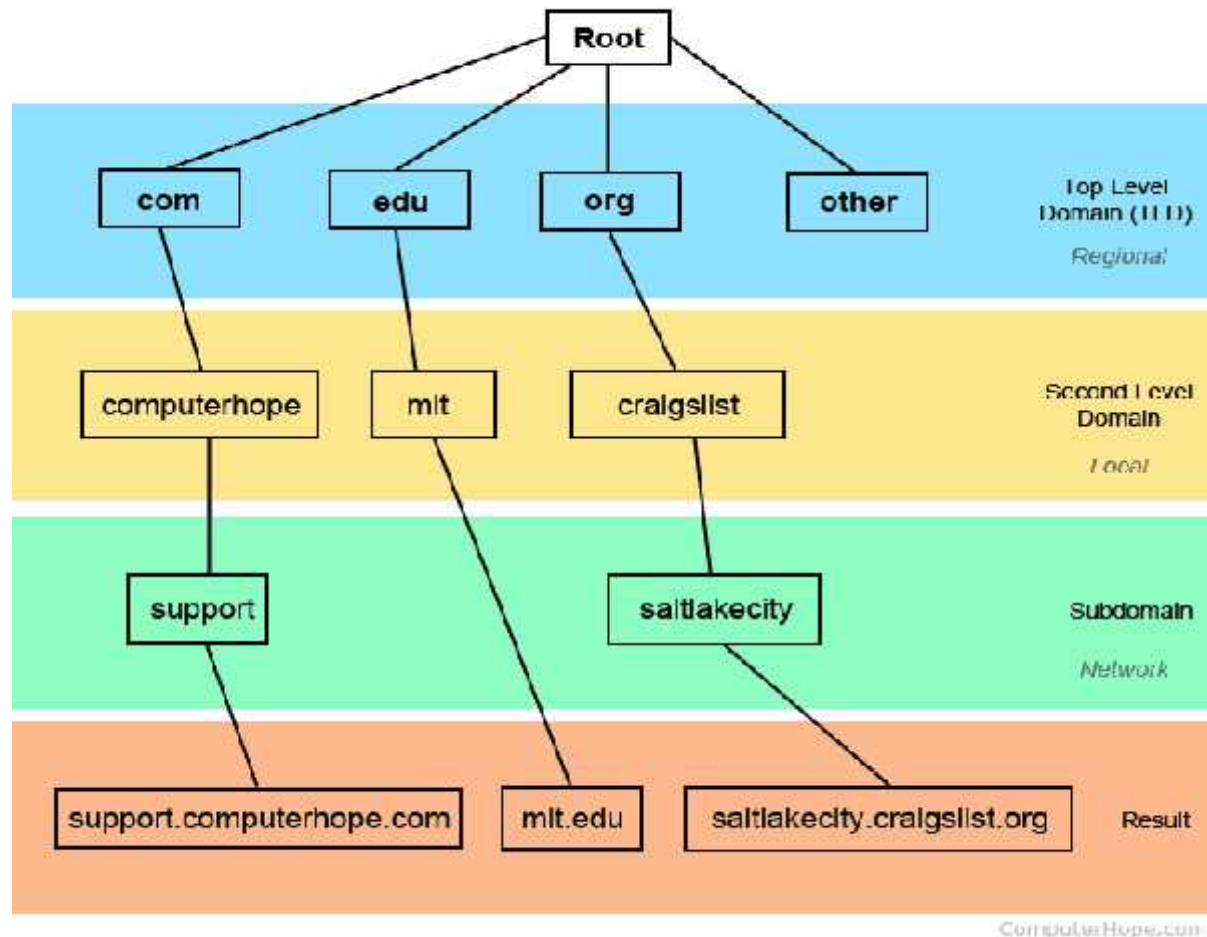
- ❑ Caching servers, also known as caching-only servers, perform as their name suggests; they provide only cached-query service for DNS responses.



# DNS HIERARCHY



## Domain Naming Hierarchy







## HOW TO KNOW YOUR SYSTEM DNS SERVER ADDRESS



- Open your Command Prompt from the Start menu (or type “Cmd” into the search in your Windows task bar).
- Next, type **ipconfig/all** into your command prompt and press Enter.
- Look for the field labeled “**DNS Servers.**” The first address is the primary DNS server, and the next address is the secondary DNS server.



# ASSESSMENT



1. Why DNS is Used in Communication Networks?
2. How do you your DNS server address?



**THANK YOU**