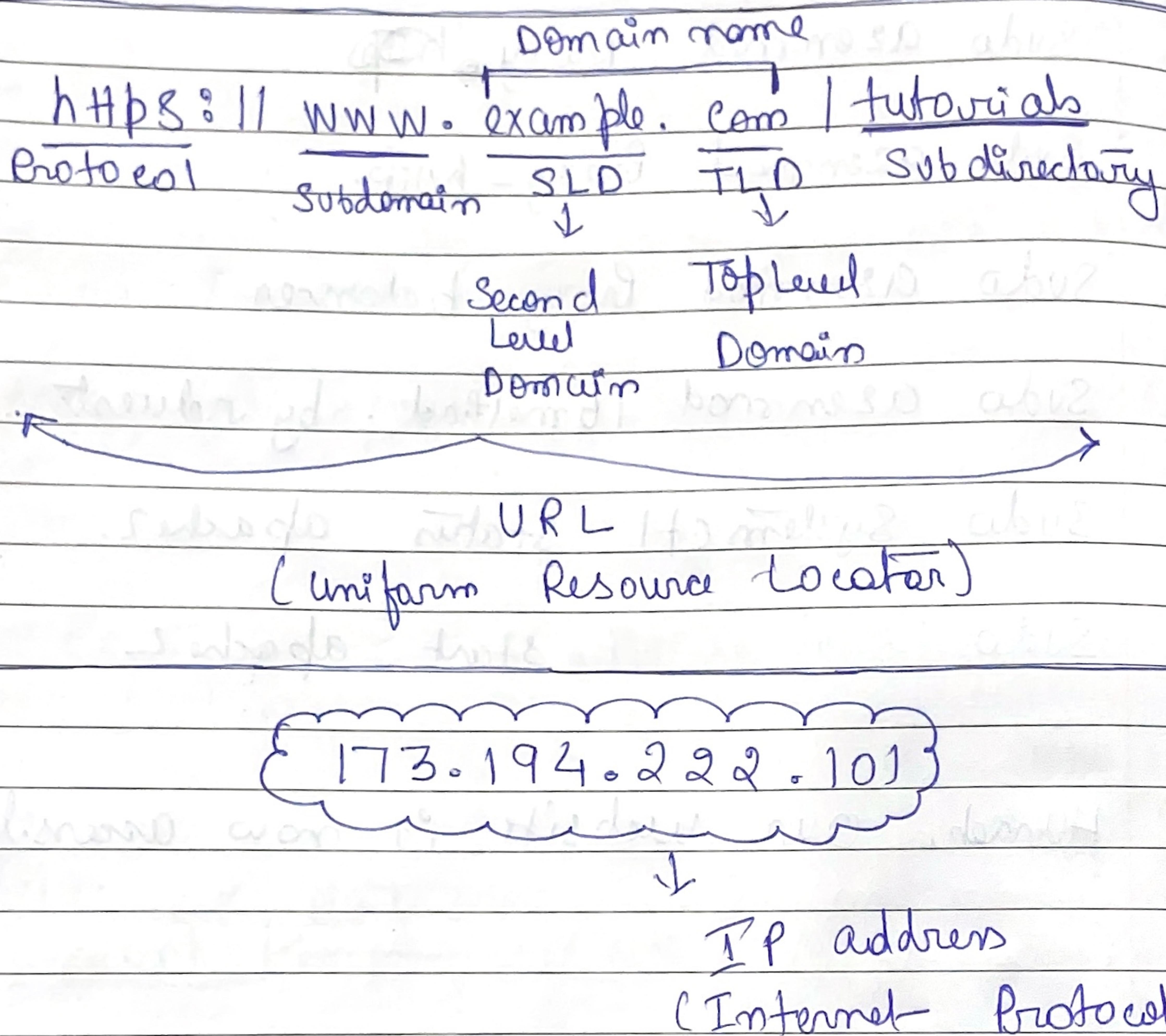


* DNS Records Explained: A, AAAA, NS, MX and CNAME



- To display the ~~domain~~ website it need to be translated the domain name into something called an IP address. All done by DNS (Domain Name System)

(A) DNS Record types:

- ① nameServer (NS)
- ② glue records
- ③ A record
- ④ AAAA record
- ⑤ CNAME
- ⑥ TXT record

- 15 Name Server :- without nameserver (NS) records a website would not work.
- Started in TLD Server (Top Level Domain).
- 20 NS record look like this:
 - andy.ns.cloudflare.com
 - dave.ns.cloudflare.com
- 25 You normally have at least 2 NS records.
- They look like a website URL, but instead of linking to a website, they link to the domain names authoritative nameservers.

When you buy a domain name it normally has some default NS records managed by your domain Registrar.

For example: My website is Chover.com

Default NS records are:

- ms1.hover.com
- ms2.hover.com.

* Basically the NS is King. They have ultimate control of where a domain should go.

② Glue record

- It is only needed when you are running your own nameserver - most people don't.
- It is the IP address of the authoritative nameserver. You create the glue record with your domain register.

③ A Record, also known as [IPV4 address record]

The A record is used to point the domain name at one or multiple IP addresses.

→ When to create an A record there are three fields to fill in:

- o name
- o destination
- o TTL (Time-to-Live)

• Name

- ① @
- ② *
- ③ Subdomain such as www

→ An @ is the name field means the A record will only affect the second level domain (SLD) - also known as the root domain

→ An * (asterisk) in the name field is a wild card, and represent any subdomain prefix. Creating the record *.pbnumby.com would affect all subdomains such as :

→ ftp. pbnumby. com

→ www. pbnumby. com

→ Prod. www. pbnumby. com . . .

①

Destination

- This is where you add your website Server IP address.

②

Time-to-Live (TTL)

- All DNS records have a TTL (time-to-live) entry.
- It indicates how long until your computer or resolver has before it should recheck with the authoritative nameserver.
- Example: If you set TTL for 300 seconds it would take 300 second (5min) for all computers in the world to use your new setting.

Google.com. 300 IN A 173.194.222.101.

↓
Format

* AAAA record, also known as IPV6 address records.

- AAAA record does the same thing as the A record but IP address is ~~too~~ longer.

IPV4 → 32 bits
 IPV6 → 128 bits.

* CNAME (Canonical Name Record)

- If you are already using an A or AAAA record for a Subdomain you wouldn't use a CNAME.
- CNAME records must always point to another domain | subdomain, never directly to an IP address.
- It only works for subdomains.

* MX record (mail exchanger)

- It used to create email addresses from that domain.
- It used to tell the world which mail servers accept incoming mail for your domain and email sent to your domain should be routed to.

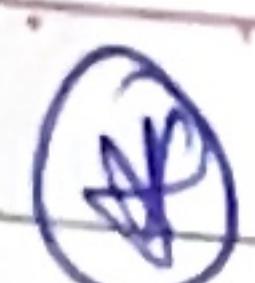
* It consists of four parts:

- ① name
- ② priority
- ③ Destination
- ④ TTL (Time-to-Live)

→ The only difference is the priority number which is used to indicate which servers should be attempted to use first. The lower the number the higher the priority.

①	google.com	600 IN MX 10	alt1.firebaseio.com
②	google.com	600 IN MX 20	" " "
③	google.com	600 IN MX 30	" " "

→ Has the highest priority as it has lowest number.



TXT Record

- TXT record (Short for text record) is used to add arbitrary text.
- It often used to include verification of domain ownership.