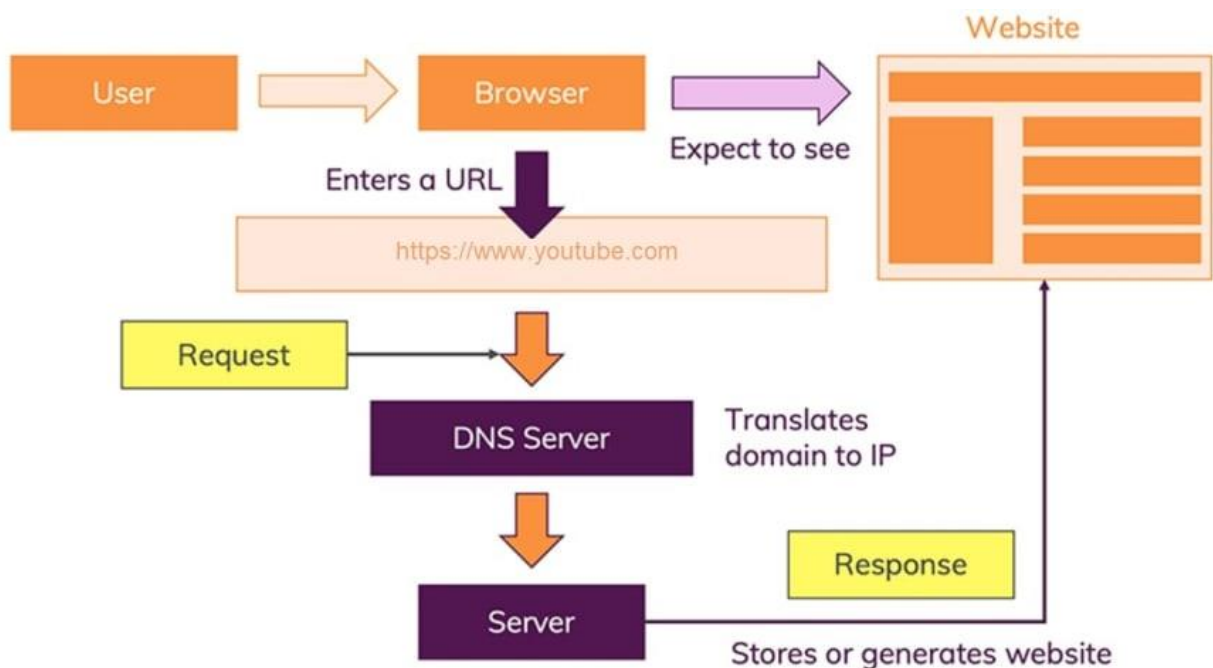


## WWW LIFECYCLE

### How the web works?

1. User opens his laptop (*client*) that is connected to the internet and opens Google Chrome (*browser*)
2. User types in the web address [www.youtube.com](https://www.youtube.com) to the browser address bar
3. The browser goes to the *DNS server* and exchange the web address into an *IP address*
4. The browser uses the *IP address* to make an *HTTP request* to YouTube's *server* to access the website page
5. YouTube server looks at the *HTTP request*, prepares the data into *packets* and *TCP* numbers each *packet* (many companies have their data stored in services like Oracle Cloud or AWS)
6. YouTube *server* responds with an *HTTP response* with a "200 OK" status code (means the request was processed successfully) to the user's browser
7. *TCP* assembles the *packets* back to the data as a whole, and the web page is displayed by parsing *HTML*, *CSS*, *JavaScript* and its assets like images and videos



# DNS

## Go shopping

- There is a road
- On one end of the road is your house.
- On the other end of the road is a shop you want to buy something from.

## Steps

1. You find the address of the shop
2. You go to the shop and order your goods
3. The shop gives you your goods and you bring them back to your house
4. The goods are in your house.



# DNS

## Go shopping

- Web is a road
- On one end of the road is a client (your house)
- On the other end of the road is a server (a shop)

## Steps

1. You find the address of the shop: DNS
2. You go to the shop and order your goods: HTTP Request
3. The shop gives you your goods and you bring them back to your house: HTTP Response
4. The goods are in your house.

## In technical terms:

- **Your Internet connection:** Allows you to send and receive data on the Web (the street between your house and the shop)
- **TCP/IP:** the transport mechanisms that let you to place an order, go to the shop, and buy your goods. (a car or a bike in our example)
- **DNS:** Similar to looking up the address of the shop so you can access it.
- **HTTP:** the language you use to order and receive your goods