

Assignment-1: What happens when I visit the Google homepage from my mobile browser?

1) Introduction

When I type `www.google.com` in my Chrome browser, the page looks simply, but inside many steps happen.

- My phone/browser starts the request
- The request travels through the internet
- Google's servers prepare the page
- Finally, my browser shows me the page

2) Client Side (Before sending request)

- I type `www.google.com` in the Chrome browser.
- Browser checks if the page is already saved (cache).
- If not, it asks "What is the IP address of google.com?" (DNS request).

3) Network Operations (Travelling through Internet)

- DNS server replies with Google's IP address.
- My phone starts a secure connection with Google's server (Handshake + Encryption).
- Request travels through mobile network → ISP → internet cables → Google data center.
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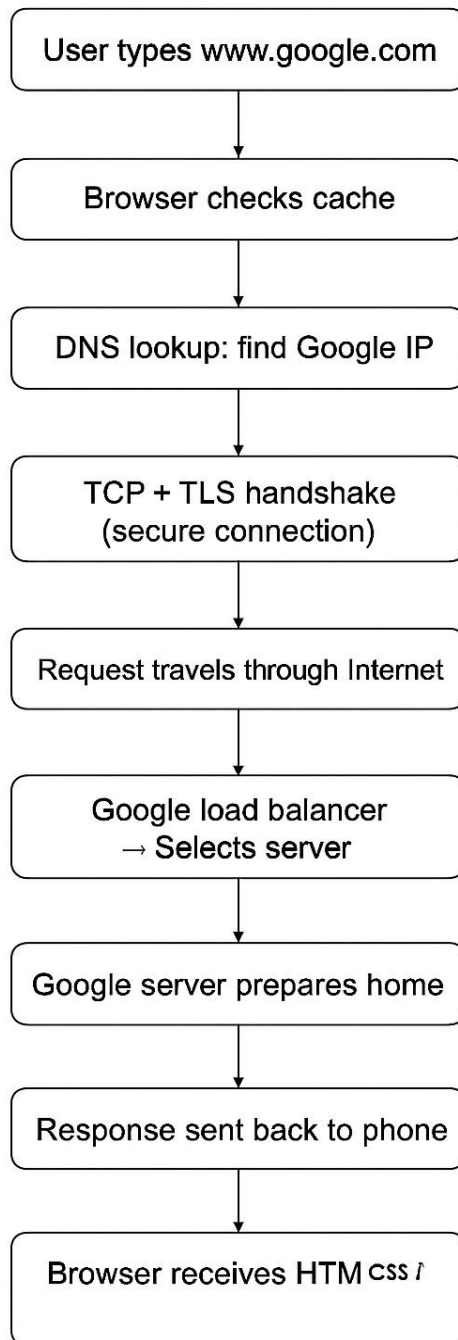
4) Server Side (At Google's Data Center)

- Google's load balancer decides which server will answer me.
- Web server checks my request (not logged in, so no personal data).
- Google prepares the homepage (HTML + CSS + logo + JavaScript).
- Response is sent back to my phone.

5) Client Side (Showing the page)

- My browser receives the HTML.
- Browser downloads extra files (CSS, images, scripts).
- Browser builds the page step by step (layout, colors, text, logo).
- Finally, the Google search page appears ready for me to use.

FLOWCHART:



GITHUB LINK: <https://github.com/siva2555/Matrimorphosis.git>