

1.

- A website is like a collection of webpages and other items linked together. You basically design a website on your own for your purpose which can either contain a single webpage or a set of pages interconnected with links, images etc.
- To make this website accessible to everyone you need to put it on a server.
- When you type the url of a website the set of pages would be displayed from the corresponding server
  - Each website has a domain name tied to the IP address of a server on which the website is saved and can be accessed.
  - IP addresses are managed by the domain name service or DNS for short.
  - So once we enter a URL our browser does a series of queries to locate the IP address of server and then the host server.
  - It then generates requests to have a copy of webpages which are then translated and displayed.

## 2. LOCAL SERVER

- Python comes with built-in HTTP request handler and can host static websites.
  - Just open command prompt/terminal and enter the directory where your webpage is, say "web.html".
  - Type in "cd /Desktop/web".
  - Now type in "python -m SimpleHTTPServer 8000".
  - That's it, we have our website hosted on local server on port 80.
  - Now just connect a device to the wifi and type the following address in the browser, <http://localhost:8000>.
  - You can also search "http://your ip address":8000.

3.

- No, both the users must be on the same network on which the website is hosted, that is IITD wifi.

4.

- Apache and Nginx
  - A server, in general, is a remote computer that serves files to requesting clients. A web server, then, is the environment that a website runs in.
  - The most significant benefit to Apache is that it's free for both personal and commercial uses, so you don't have to ever worry about needing to pay for it.
  - Apache is also a reliable software framework and remains actively maintained, so it receives frequent feature upgrades, security patches, and vulnerability improvements.
  - Basically every time you type a URL and press enter, the web browser uses HTTP server to get the webpages. As there are so many servers, HTTP is needed to maintain a uniform language.