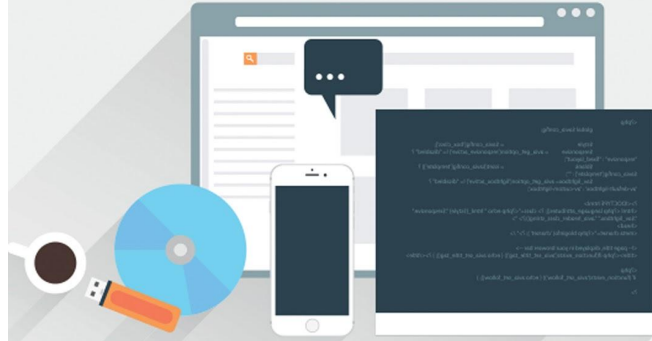


INTRODUCTORY WORKSHOP

WEB DEVELOPMENT



Brief idea about websites
and Internet.

WEB DESIGN



Fundamentals and insights
to web design.

VENUE : G8 @ 6:00 pm on 12th April

Nitin Gera
8272859757

Mrityunjay Saxena
7839246664

Fill in your details

Connect to wifi

Visit in your browser

Topics To Be Covered

- ❖ Server and why do we need them?
- ❖ Hosting
- ❖ Client-Server Model
- ❖ Static vs Dynamic pages
- ❖ Basics Of Html, CSS, Js, JQuery, Bootstrap
- ❖ PSD to Website

Backend Functioning

Club of Programmers
Science and Technology Council

Mayur Dhurpate

Omkar Jadhav

Abhinav Gupta

What is a client server model

- A server is a central program or system offering some service or resources to its clients.
- A client requests and uses the service being offered by the server.
- A server host runs one or more server programs which share their resources with clients.
- Examples of computer applications that use the client-server model are Email, network printing, and the World Wide Web.

The myth about servers

- Servers are system programs that offer a certain service. They can be run on normal systems too.
- However, a normal desktop can not be run 24*7, has low computing power, dynamic ip address, so we have a special kind of machines designed specifically to run server programs.

What is a website

Collection of various web pages, typically identified with a common domain name, and published on web server. Opening a webpage is just like opening a file on your browser, located on a remote server.

What is required?

1. **Common domain name**
2. **Web server**
3. **Collection of various web pages**

Domain Name System (DNS)

- It is a directory service which translates more readily memorized domain names (eg: facebook.com) to the numerical IP addresses (31.13.76.68) needed for the purpose of locating and identifying servers.
- DNS server a type of server which is actually a directory containing domain names and their equivalent IP addresses.
- ICANN is a not-for-profit organisation that regulates online addresses, known as domain names, and their suffixes, such as ".com" and ".org".

Hosting

- To make your website public you'll need to:
 - ◆ Install the server program on your machine, that can run 24*7
 - ◆ Put your files in the server directory.
 - ◆ Obtain a static IP for your system.
 - ◆ Configure your DNS to point to your IP address for your domain.
- **An alternate solution:** There are third parties that take of all the above mentioned issues. They provide you with a space on their server and takes care of all the configurations.

Static vs Dynamic pages

Static

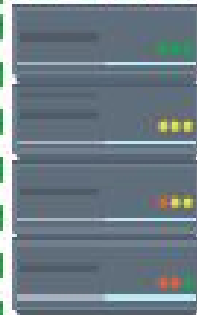


Server

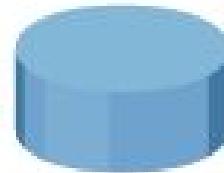


Client/browser

Dynamic



Web server



Database
server



Client/browser

How is the dynamic nature achieved

- On server side various scripting languages are used to generate dynamic web pages. This is known as server side scripting.
- Scripting languages used on client side are called client side scripting languages. They achieve dynamic nature at client's end.
- Server sides scripts connect to database or call other scripts to generate HTML pages which are returned to the client.

Few different types of server

- Http server aka Web server (Used to host websites)
- Database server (Used for storing data)
- FTP server (Used for managing files)
- SMTP server (Used for emails)

Overview of how various pieces fit together

- A client (mostly a web browser) issues a request for a particular URL.
eg: `http://facebook.com/home.php`
- DNS converts the domain name into IP address
eg: <http://facebook.com> -> 31.13.76.68
- The desired webpage (`login.php`) is then requested from the server with IP address (31.13.76.68)
- Server fetches the script `home.php`, runs it, generates a HTML page and returns it to the user (with his name and other info fetched from database / session). **Note: This is the case of server side scripting.**

Overview of how various pieces fit together

- Designing of the HTML pages is done using CSS
- Once the webpage is delivered, the dynamic interface on client side is achieved through client side scripting languages, mostly javascript.
Eg: When you click on a menu button a dropdown list of options shows up. Or when you click on a person's name the message window pops up. This is achieved through javascript.

Few other relevant topics

- REST APIs
- AJAX
- Websockets

Questions ?

Frontend Functioning

Sumit Kumar

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