Web Programming Technology (WPT)

Tuesday, May 2, 2023 9:38 AM

What is web programming?

What is Web Application? It is a distributed application in which the client and the server use HTTP for sending request and response!!!!!

What is distributed application? One applications is DISTRIBUTED between many processes, the processes communicate with each other.

If there are two processes, they will be called as CLIENT and SERVER

What is the ROLE of Client process in a distributed application?

- 1. Interacts with the END USER
- 2. Sends a REQUEST to the server
- 3. Gets a RESPONSE from the server
- 4. Shows the response to the END USER

What is the ROLE of the Server process in a distributed application?

- 1. TO run continuously waiting for the client request
- 2. The server MUST run on a fixed IP:PORT number
- 3. The server should receive a REQUEST from client and send a RESPONSE

Client and server processes MAY be on the same machine or on different machines If Client and Server are on SAME machine }}}} IP will be same, PORT number will be different If Client and Server are on DIFFERENT machines }}}}} IP will be different, PORT number will be different

THE client and server MUST communicate with EACH other Using CERTAIN PROTOCOL!!! PROTOCOL??? Set of rules to send and create a request and send and create a response

Application Level Protocols (Telnet , FTP , SSH , HTTP , SMTP ,POP)
Network Level Protocols (TCP,UDP)
Intenet Protocol (IP)
Physical Level Protocol

We deal with application level protocols! Client and Server MUST follow the same protocol.

Distributributed Application

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Having 2 processes = Called as Two Tier Application
browser <-----> Web Server
mysql-client <----> mysql-server

Having 3 Processes = Called as Three Tier Application
browser <----> Web Server <-----> MySQL server

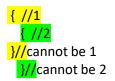
Having >3 processes = Called as n tier application
browser <-----> Webserver <------> DB Server
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A typical Distributed application is divided based on functionality

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FRONT-END < -----> BACKEND
    UI <-----> Business Logic + DB
    Client Side < ----->Server ( web server , DB server , LB server .....)
FRONT END for a typical WEB APPLICATION is called as
     Http Client
     OR
    Web Client
    OR
     Browser
UI = user Interface
         WHICH USER = END USER ( Human being )
         End User can see
              Colors, fonts, images, audio, video
              Text, Widgets (buttons, textfield, scroll bar, drop down list, tool tip,
              checkbox, radiobuttons textArea, list, tables ......)
WPT to display the UI = HTML = Hyper Text Markup Language
We Mark the text for displaying in different ways !!!
We will mark using some PREDEFINED HTML tags !!!!
<OPENINGTAG attribute1=value1 attribute2=value2 ..... >
TAG BODY
</CLOSINGTAG>
TAG BODY === Is made up of EITHER only TEXT or SUBTAGS
EDITOR to write the code = VS Code
File can have extension = html or htm
Browser has embedded interpteter to TRANSLATE the MARK UP into actual UI
```

Tags	
<html></html>	Outermost tag of an html file
<head></head>	Subtag of <html></html>
<title></td><td>Subtag of <head> it has text that is displayed in browser title</td></tr><tr><td><body></td><td>Holds the content to be displayed in the CONTENT-AREA/DISPLAY-AREA of the browser</td></tr><tr><td><h1>,<h2>,<h3>,
<h4>,<h5></td><td>In built heading tags</td></tr><tr><td><u>, <i>,</td><td><u> = markup for underline , = markup for bold ,<i> =</td></tr></tbody></table></title>	

	markup for italics	
 <pre>To add line-break on the browser</pre>		
Grouping TAGS		
<div></div>	/> It simply groups a data logically and create divisions in the bod	
It is for paragraph , It will automatically add a new line		
	span> It is a logical division of text within a div or a para	
<pre></pre>	Retains the spaces and new lines in the source file on the browser	
 For unordered list 		
<	Subtag of and it holds the LIST ITEM	
	For Ordered list	
<thead></thead>	<thead> = heading , subtag of = lower part of the table , subtag of = rows subtag of = columns , subtag of</thead>	





Tags	
	
<audio></audio>	
<video></video>	

Input Tags	
<input/>	

