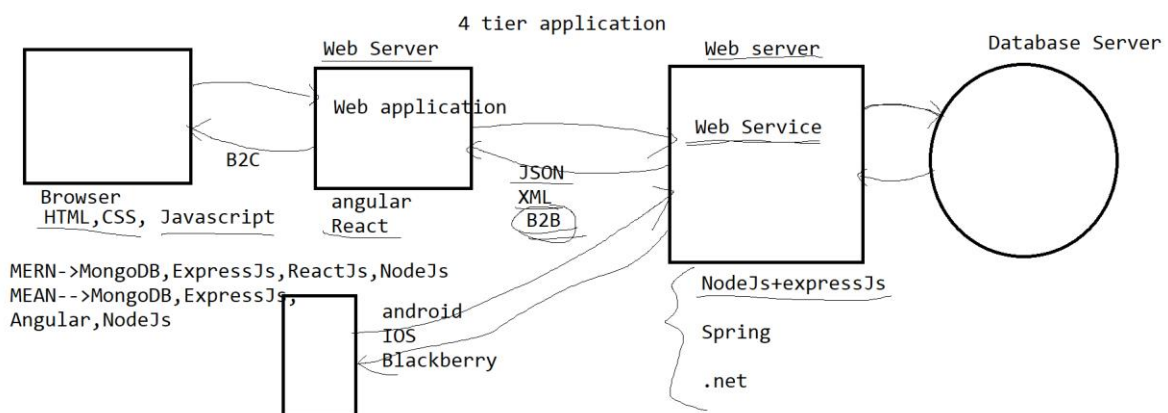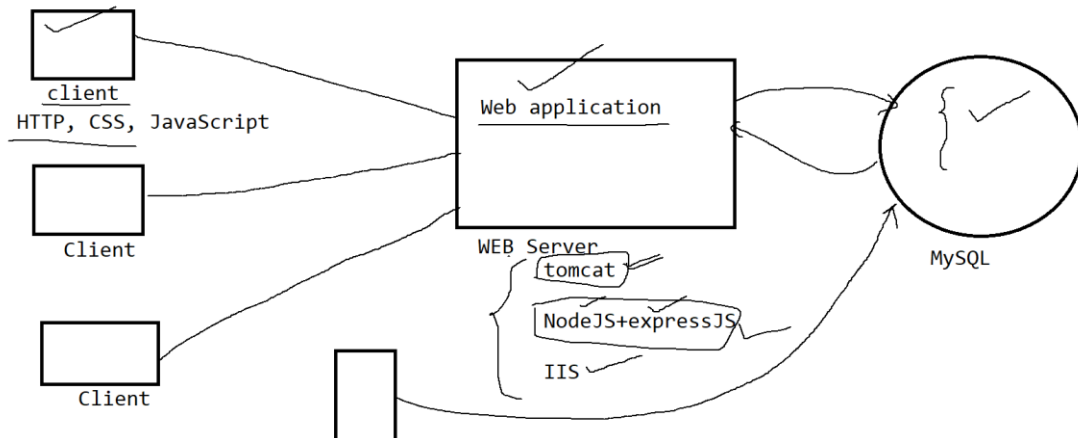WPT(Web programming Technology)

3 types of applications

1. Single user application
2. Web application---3 tier application
3. Web Service—It is a application which run on the server, connects to database and convert it into JSON or XML format, is called as web service


```
client
HTTP, CSS, JavaScript

Client

Client

Web application

WEB Server
tomcat
NodeJS+expressJS
IIS

MySQL
```



```
4 tier application
Web Server
Web application

Browser
HTML,CSS, Javascript
B2C
angular
React

Web server
Web Service

JSON
XML
B2B

Database Server

NodeJs+expressJs

Spring

.net

MERN->MongoDB,ExpressJs,ReactJs,NodeJs
MEAN-->MongoDB,ExpressJs,
Angular,NodeJs

android
IOS
Blackberry
```

HTML,CSS, Javascript(Vanilla Javascript)

Web pages

1. Static web pages
2. Dynamic web pages
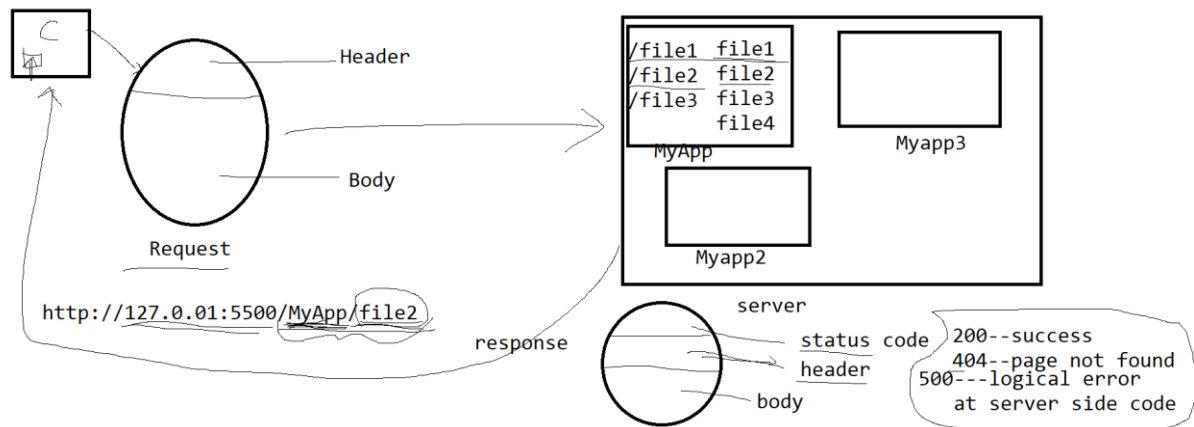
View > extension > live server > install

Html tags type

Empty tags	The tags in between we are not writing any text is called as empty tag	` </br>`-→ ` ` `<input/>`, `<hr/>`

Auto closable tags	The tags for which writing end tag is not mandatory, the next occurrence of the tag will automatically close the previous tag	, <tr>, <td>
semantic tags	When a tag name gives extra information about the contents then it is called as semantic tags, it is used for better accessibility purpose	<header><footer><nav> <article><aside><section> <main>

tags

p	It is usefule to show the paraghraphs, it leaves one blank line in between
Div	This will divide the page virtually in divisions
a	To display links, to link the pages or section of the pages, open blank email, with email address in it.
br	To add blank line in between
hr	To draw a horizontal line
Ul , li	To display unordered list, li—list items
Ol,li	Ordered list, li→ list items
Dl,dd,dt	dl→Data list, dd→data definition, dt-→ data term

Request, response

<form>	Method has 2 values(get,POST) , get sends data via query string via request header POST sends data via request body Action is used to specify url, to which data should be send If url starts with /-→ absolute url If it doesnot starts with /--→ relative url
<input type="text">	Type-→ specifies type of the control in the form Name-→ used by serverside code to retrieve data from request object Id-→ Id is used to identify html element uniquely, so id has to be unique
<Button> or <input>	Buttons are of 3 types 1. Submit-→ submits the data to server and refresh the page 2. Button-→ it performs the click action and stays on the same page 3. Reset-→ it clears the form

Values of type attribute

text	Text box
number	Use to display textbox with buddy control for increment/decreament the number. Allows only digits and e alphabet, but data will be submitted to server in the form string
radio	To select only one option from given choices
checkbox	To select multiple options from the given choices
Date	To select the date from calendar control
range	To select some value withing range
Color	To display color pallete to select the color
Week	To select week number between 0-52
Month	To select the month of the year

Registerform.html

```
Name        [                    ]

Age         [              ⬍]

mobile      [              ]

gender      ⦿ Male    ○ Female

hobbies     ☐ Reading    ☐ Biking
            ☐ Trekking   ☐ Dancing

City:       [          ▽]

Date of travel: [              ]

degree      ⦾ BTech  ⦾ MTech  ⬭ PHD
     ( Register )      ( Cancel )
```

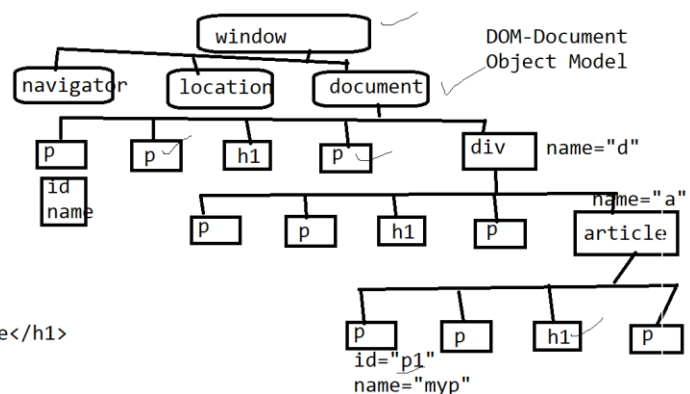CSS-Cascading style sheet

```
<p>This is p1</p>
    <p>This is p2</p>
    <h1>This is H1 1111</h1>
    <p>This is p1</p>
    <div>
        <p>This is p1  in div</p>
        <p>This is p2 in div</p>
        <h1>This is H1 1111 in div</h1>
        <p>This is p1 in div</p>
        <article>
            <p>This is p1 in article</p>
            <p>This is p2 in article</p>
            <h1>This is H1 1111 in article</h1>
            <p>This is p1 in article</p>
        </article>
    </div>
```

DOM-Document Object Model

window
navigator   location   document

p   p   h1   p   div   name="d"

id
name

p   p   h1   p   article   name="a"

p   p   h1   p
id="p1"
name="myp"

---Every rule has 2 parts

Selector{

  Property:value;

  Property: value;

}

Selectors in CSS

Tag selector	div,h1,h2
Id selector	#myid
Class selector	.myclass
Div p	Ancestor descendent
p:first-child	P tag who is first child of its parent
P:last-child	P tag who is last child of its parent
P:nth-child(n)	P tag who is nth child of its parent
div>p	P as immediate child of div
Div+p	Adjacent sibling
Div~p	General sibling selector
input[name]	Tag attribute selector
input[name='test']	Tag attribute-value selector
P:hover	Apply the style when I hover on it
a:link	To default color
a:visited	The colour after visiting the link
a:active	The colour when the link is active
P::first_line	The first line of p tag
P::first_letter	The first letter in p tag