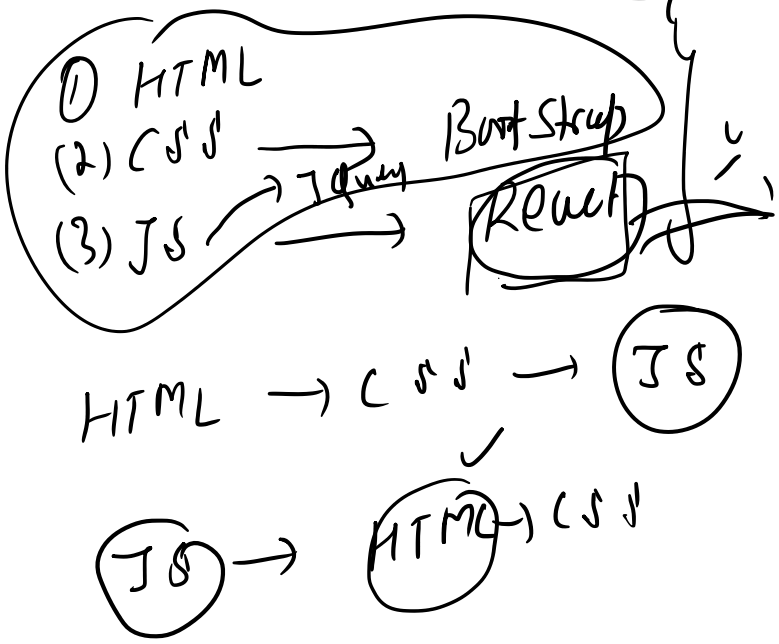
Web Designing



HTML → CSS → JS

JS → HTML → CSS

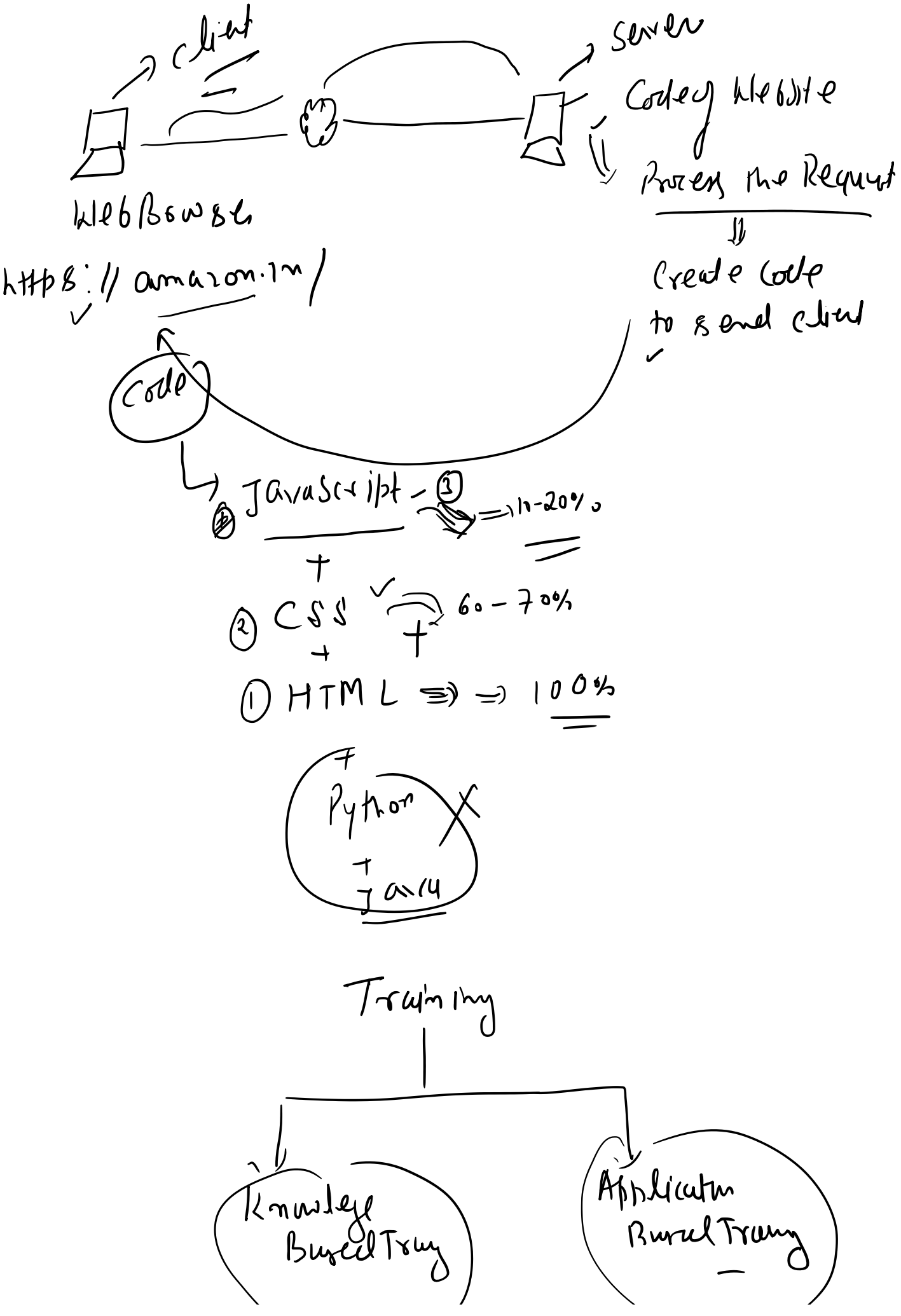
Web Development

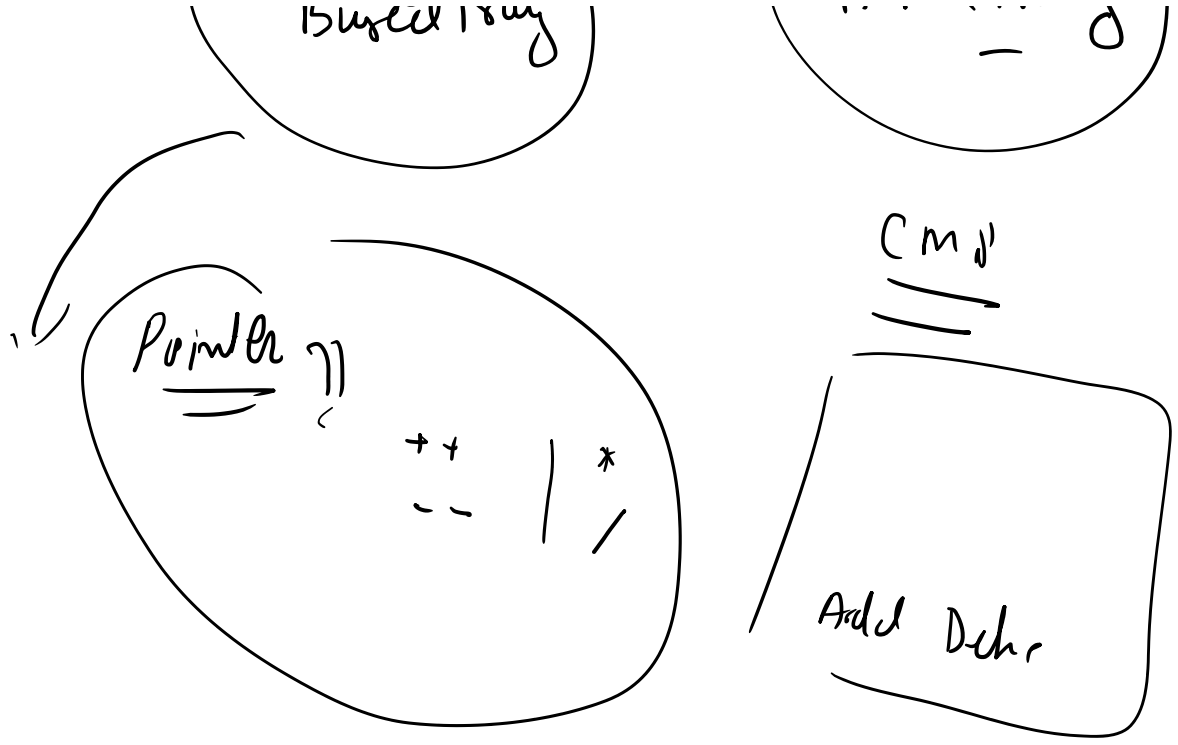
Web Application

Application that run on Web Browser is called Web Application.

- facebook.com
- google.com
- ceppainfotech.com

client server


client
server
Coding Website
Process the Request
Web Browser
https://amazon.in/
Create code to send client
code
JavaScript - 3 ⇒ 10-20%
2
+
② CSS ✓ 60-70%
+
① HTML ⇒ ⇒ 100%
Python
+
Java
Training
Knowledge Based Training
Application Based Training

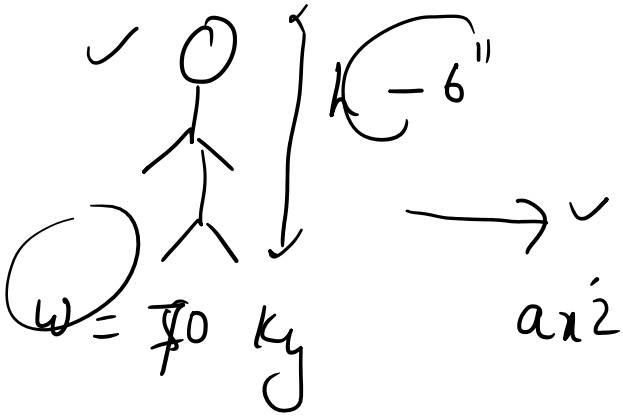


Quadratic Equation

$ax^2 + bx + c = 0$

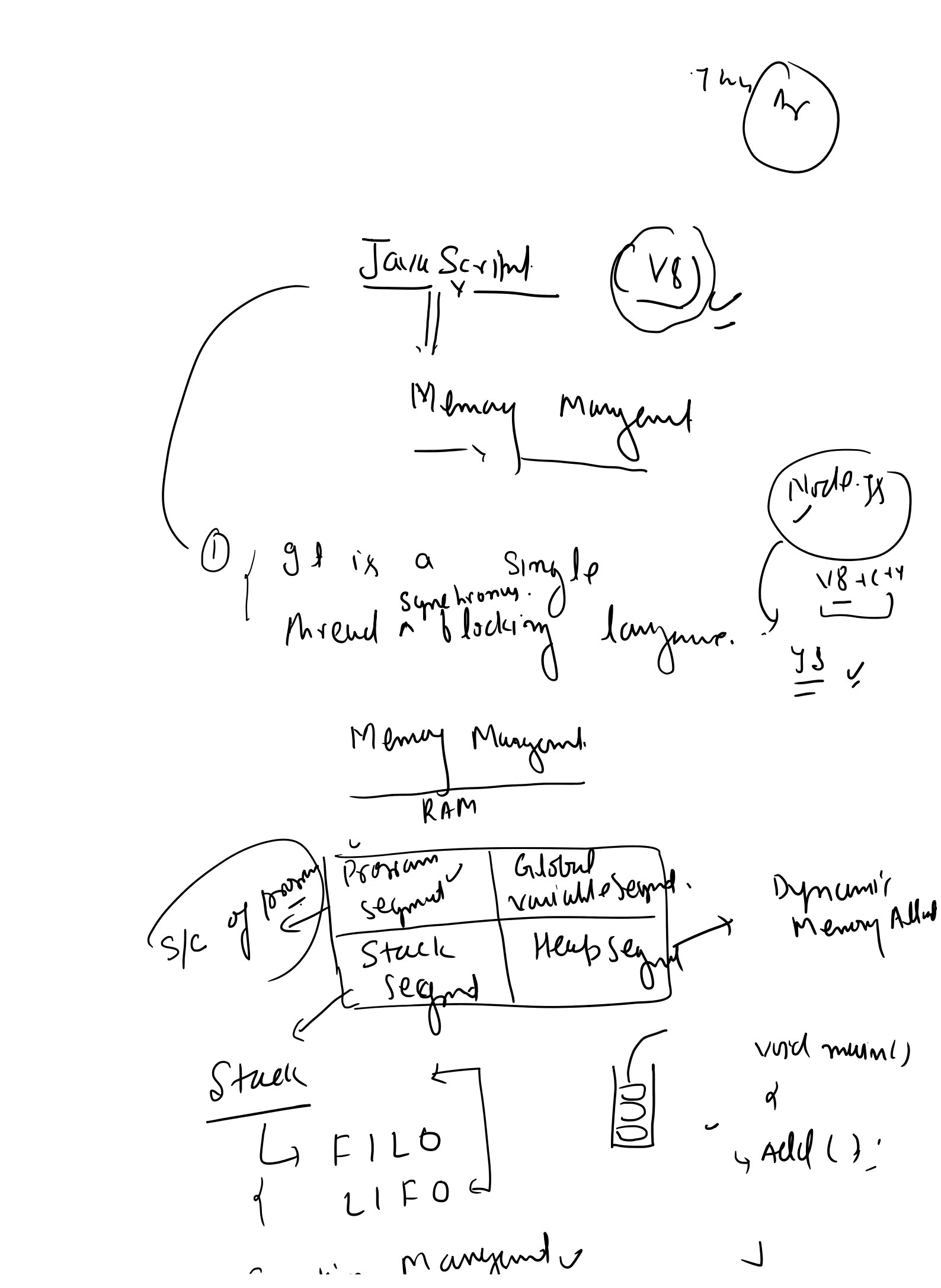
$\frac{\sqrt{b^2 - 4ac}}{2a}$

$a = 5 \quad b = 7, \; c = 3$

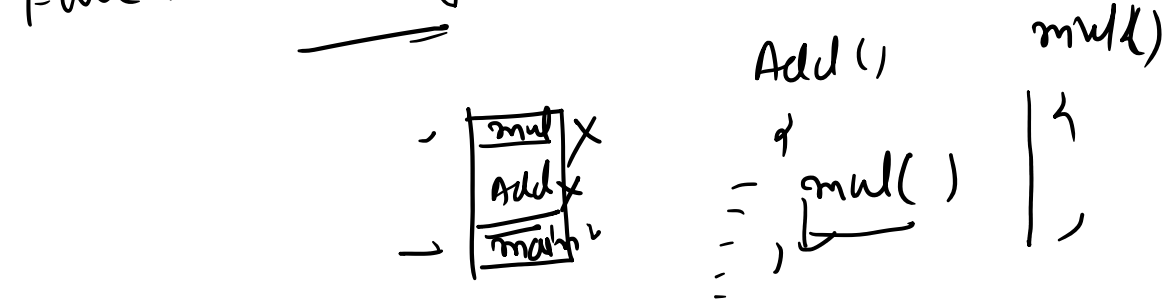


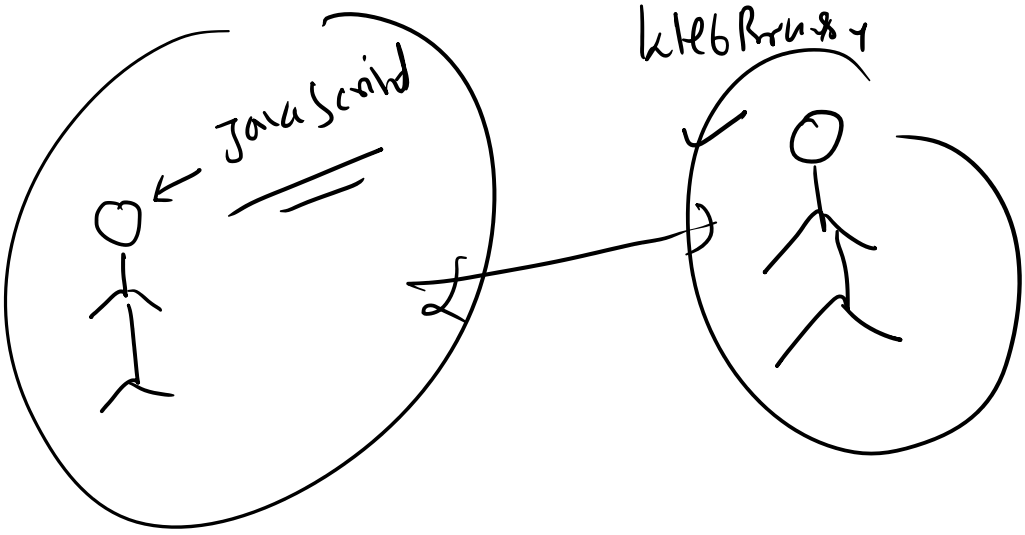
any

C C++ Tamil


Java Script
V8
Memory Mangemt
Node.JS
V8 + C++
JS
Memory Mangemt.
RAM
Program segment
Global variable segment.
Stack segment
Heap segment
S/C of program
Dynamic Memory Allo
Stack
FILO
LIFO
void main()
Add();

Function management

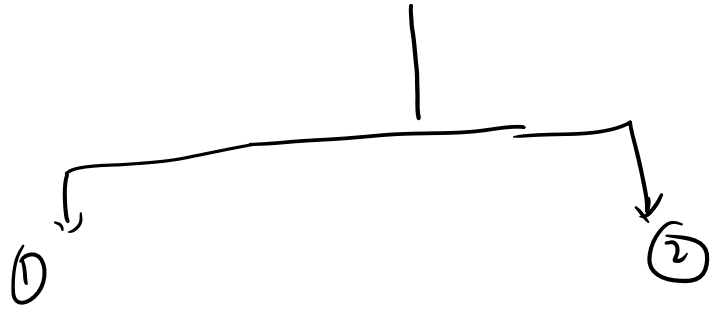




① Datatype

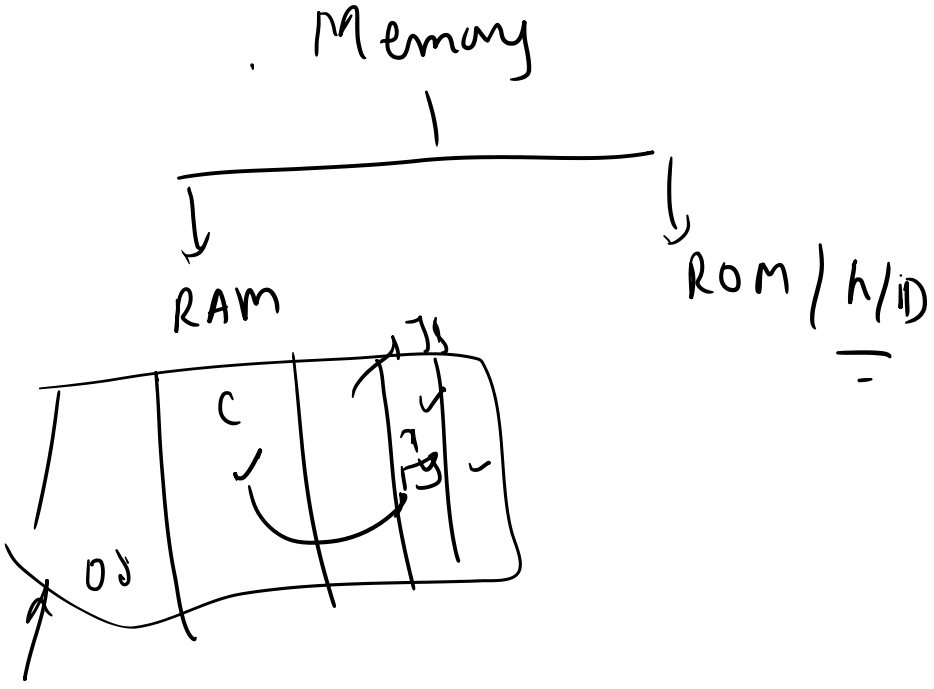
① Meaning of Programming.

What can we do with programs



How to Store Data

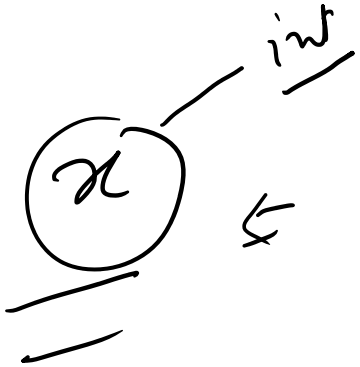
How to Retrieve Data



Datatype → It is a technique by which we can reserved Memory Blocks into RAM.

Use of Datatype :→ It is used to define variables.

Note :→ Variables are used to store data



Java Script

Data Type

↳ It is a technique by which we can reserved memory blocks in RAM.

(1) Data types are used to define validity

(2) Variables are used to store Data.

EID	Full Name	Job Title	Department	Business Unit	Gender	Ethnicity	Age	Hire Date	Annual Salary
E02387	Emily Davis	Sr. Manger	IT	Research & Development	Female	Black	55	4/8/2016	$141,604
E00059	Theodore Dinh	Technical Architect	IT	Manufacturing	Male	Asian	59	11/29/1997	$99,975
E02572	Luna Sanders	Director	Finance	Speciality Products	Female	Caucasian	50	10/26/2006	$163,099
E02832	Penelope Jordan	Computer Systems Manager	IT	Manufacturing	Female	Caucasian	26	9/27/2019	$84,913
E01639	Austin Vo	Sr. Analyst	Finance	Manufacturing	Male	Asian	55	11/20/1995	$95,409
E00644	Joshua Gupta	Account Representative	Sales	Corporate	Male	Asian	57	1/24/2017	$50,994
E01550	Ruby Barnes	Manager	IT	Corporate	Female	Caucasian	27	7/1/202	
E04332	Luke Martin	Analyst	Finance	Manufacturing	Male	Black	25	5/16/2020	$41,336
E04533	Easton Bailey	Manager	Accounting	Manufacturing	Male	Caucasian	29	1/25/2019	$113,527
E03838	Madeline Walker	Sr. Analyst	Finance	Speciality Products	Female	Caucasian	34	6/13/2018	$77,203
E00591	Savannah Ali	Sr. Manger	Human Resources	Manufacturing	Female	Asian	36	2/11/2009	$157,333
E03344	Camila Rogers	Controls Engineer	Engineering	Speciality Products	Female	Caucasian	27	10/21/2021	$109,851
E00530	Eli Jones	Manager	Human Resources	Manufacturing	Male	Caucasian	59	3/14/1999	$105,086
E04239	Everleigh Ng	Sr. Manger	Finance	Research & Development	Female	Asian	51	6/10/2021	$146,742
E03496	Robert Yang	Sr. Analyst	Accounting	Speciality Products	Male	Asian	31	11/4/2017	$97,078
E00547	Isabella Xi	Vice President	Marketing	Research & Development	Female	Asian	41	3/13/2013	$249,270
E00163	Bella Powell	Director	Finance	Research & Development	Female	Black	65	3/4/2002	$175,837
E00884	Camila Silva	Sr. Manger	Marketing	Speciality Products	Female	Latino	64	12/1/2003	$154,828
E04116	David Barnes	Director	IT	Corporate	Male	Caucasian	64	11/3/2013	$186,503
E04625	Adam Dang	Director	Sales	Research & Development	Male	Asian	45	7/9/2002	$166,331
E03680	Elias Alvarado	Sr. Manger	IT	Manufacturing	Male	Latino	56	1/9/2012	$146,140
E04732	Eva Rivera	Director	Sales	Manufacturing	Female	Latino	36	4/2/2021	$151,703
E03484	Logan Rivera	Director	IT	Research & Development	Male	Latino	59	5/24/2002	$172,787
E00671	Leonardo Dixon	Analyst	Sales	Speciality Products	Male	Caucasian	37	9/5/2019	$49,998
E02071	Mateo Her	Vice President	Sales	Speciality Products	Male	Asian	44	3/2/2014	$207,172
E02206	Jose Henderson	Director	Human Resources	Speciality Products	Male	Black	41	4/17/2015	$152,239
E04545	Abigail Mejia	Quality Engineer	Engineering	Corporate	Female	Latino	56	2/5/2005	$98,581
E00154	Wyatt Chin	Vice President	Engineering	Speciality Products	Male	Asian	43	6/7/2004	$246,231
E03343	Carson Lu	Engineering Manager	Engineering	Speciality Products	Male	Asian	64	12/4/1996	$99,354
E00304	Dylan Choi	Vice President	IT	Corporate	Male	Asian	63	5/11/2012	$231,141
E02594	Ezekiel Kumar	IT Coordinator	IT	Research & Development	Male	Asian	28	6/25/2017	$54,775

C

C

I,
byte ✓
short ✓
int ✓
long ✓

unsigned
signed.

double

Number

Maths

integers

N

... -2 -1 0 1 2 3 .... ∞

-4.5 -3.5 3.5 4.5

General syntax to define variable

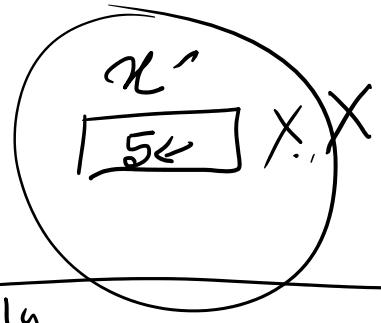
var nameof variable = value;

e.g.

var x = 5;

x = "Hello"

String



C type

int x = 5;

x = "Hello"

Error

var x = "Hello";

with

var x = "Hello" ;

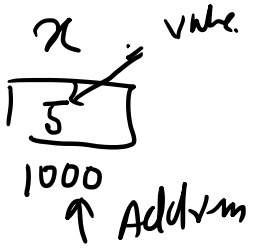
var y = 'Hello' ;

var z = ` Welcome to CETPA ` multiline

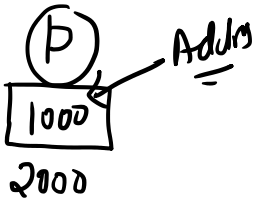
Type of variable

C

int x = 5;



int xp = &x;



int

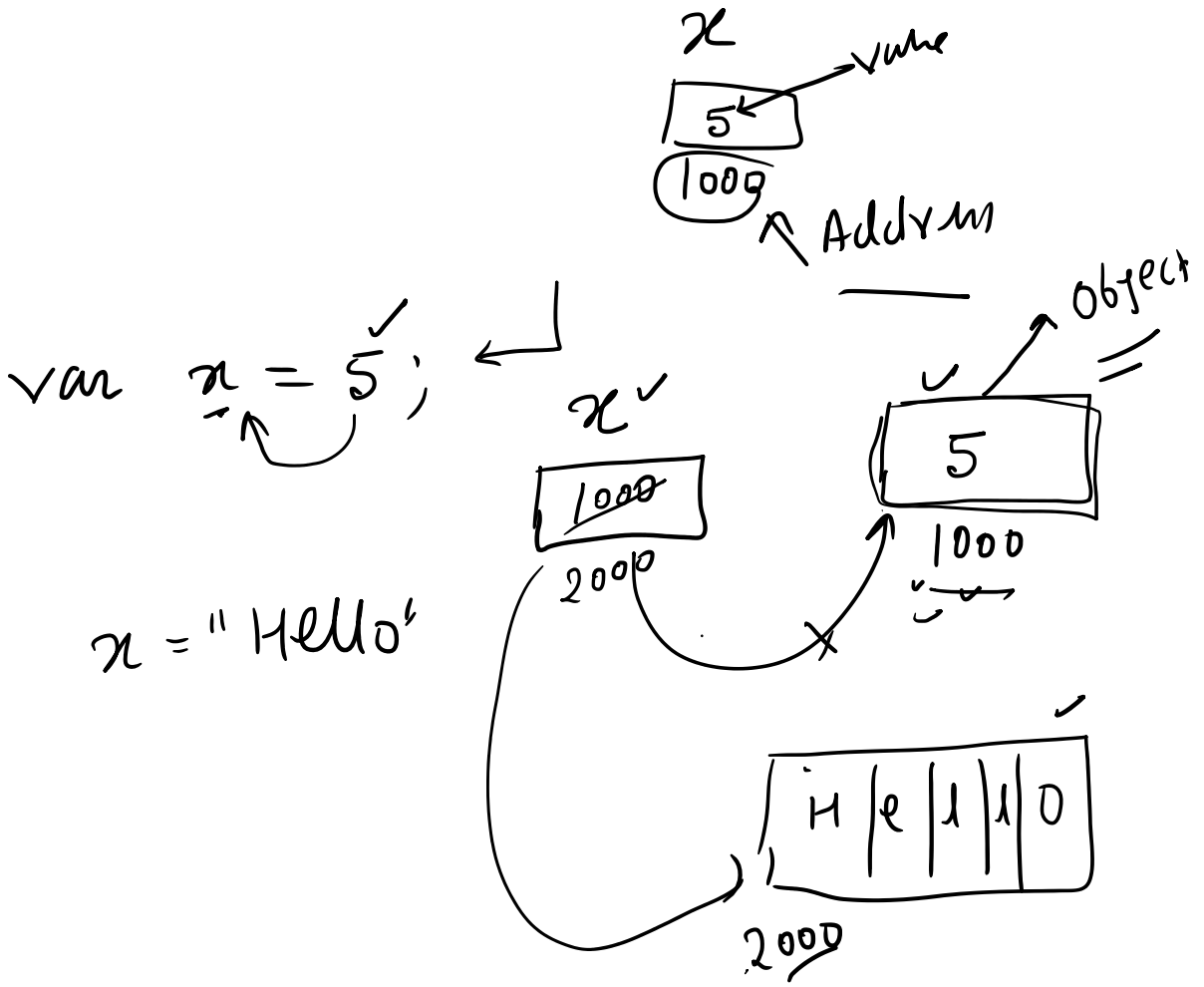
int *

int &

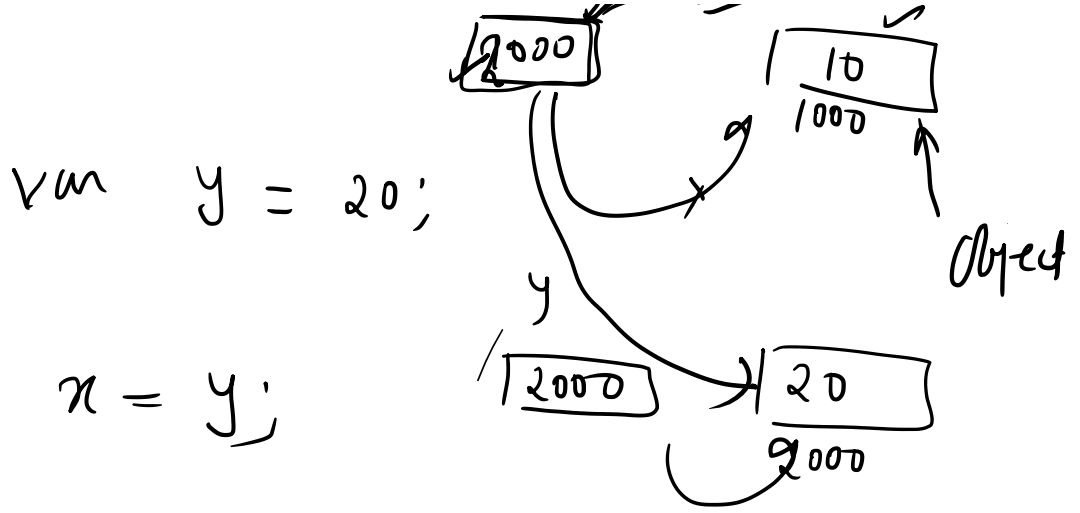
reference type.

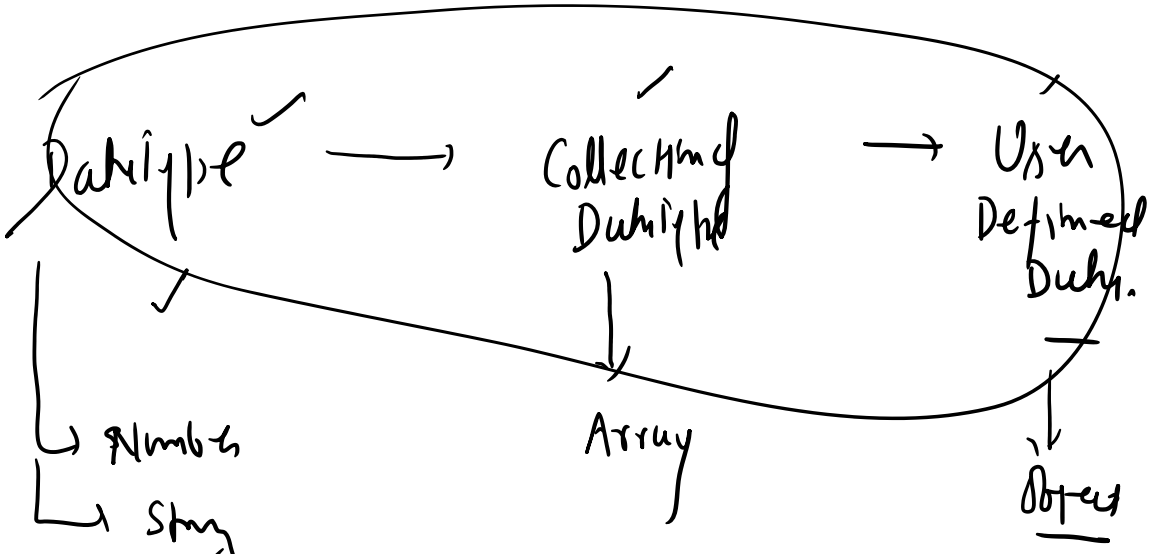
	Value Type	Pointer or Address Type	Reference Type
C	✓	✓	X
C++	✓	✓	✓

Java	✗	✗	✓
C++ / C#	✓	✓	✓
Python	✗	✗	✓
JavaScript	✗	✗	✓



var x = 10; Reference variable.





It is used to store Single Value Data.

Web Designing :-

HTML
CSS
JS =>

① Datatype ✓

↳ ① It is used to define variable.

② Variables are used to store Data.

JavaScript ✓ Celtpy

↳ Number.

Number x = 5 X

var x = 5; ← Reference variable

x → 1000 | 5 (1000)

Object

G.S to define variable.

var name of variable = value ;

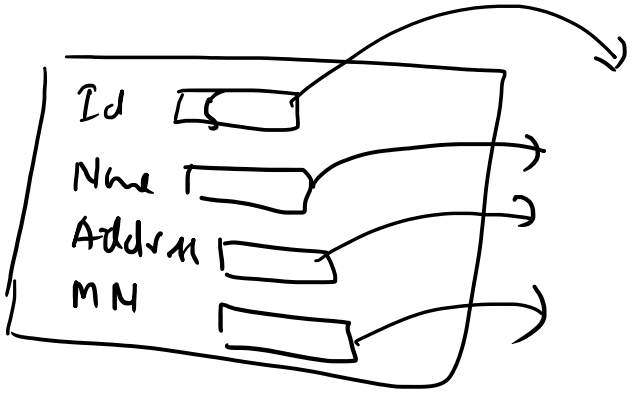
var x = 5 ;

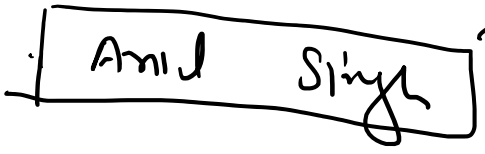
String :

var a = 'Hello' ; } for single line String

var b = "Hello" ;

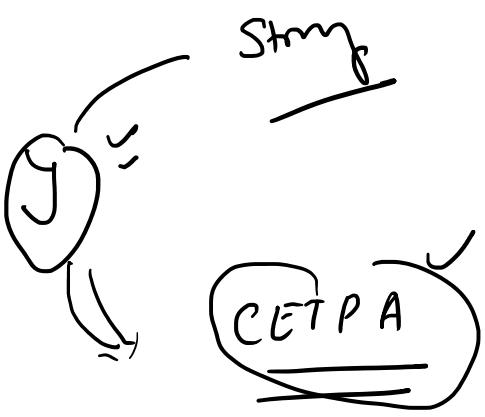
var c = `Hello` ; → for multiline String.





x = "Amit Singh"

String



DataType → Number, String

Collection of DataType → Array

User Defined Data → Class, Object

↳ Array ✓ ... ↳ String Object

↳ Single valued DataType.

1357

=>

var x = 1357; ✓

var y = 'Anil Singh'

'Anil Singh'

var z = 'Sr Manager IT'; ✓

Operators

① DataType / Variables.

(2) functions ✓

(3) classes.

① Operators ✓

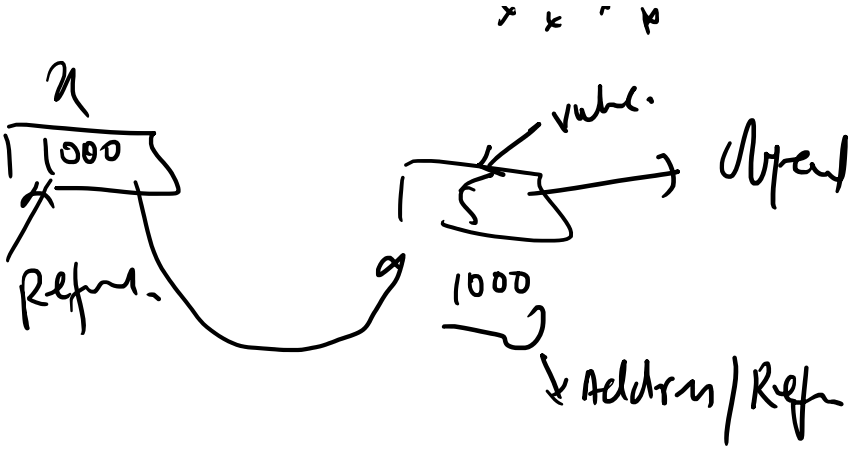
(2) control Statement ✓
↳ if, else ✓

(3) loop Statement ✓

```
*
* *
* * *
* * * *
```

var x = 5; x

var x = 5;

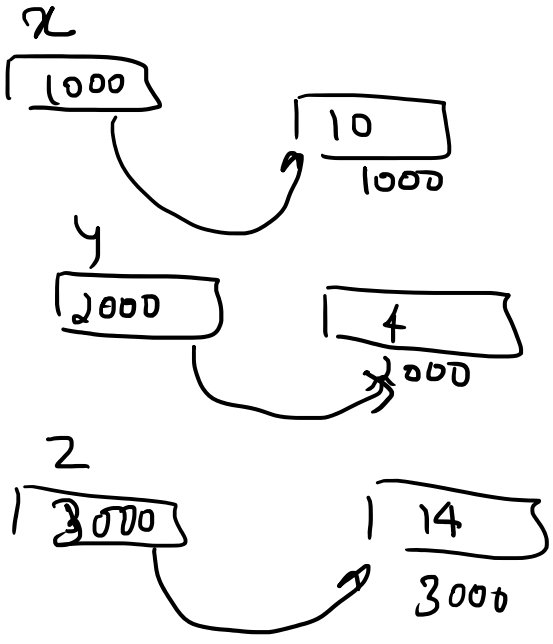


(1) Arithmetic Operator.

+ , − , * , / , % , ** , ++ , --

Note: → Works on values.

var x = 10;
var y = 4;
var z = x+y;

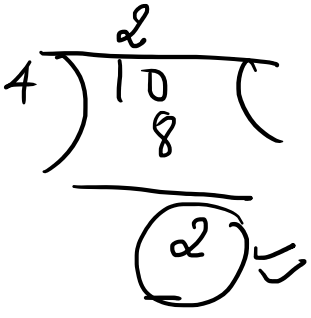


z = x-y;

z = x*y;

z = x/y; (2.5)

z = x%y;



(2) ✓

z = x**y; (2) ✓

$x^y = 10^4$

L

10000

$x = 2;$

$x++;$ =) $x = x + 1;$ ✓

$y = ++x + y + ++x;$

(1) Assignment Operator (Most Dengerus Operator)

✓ =

Note:- work on references.

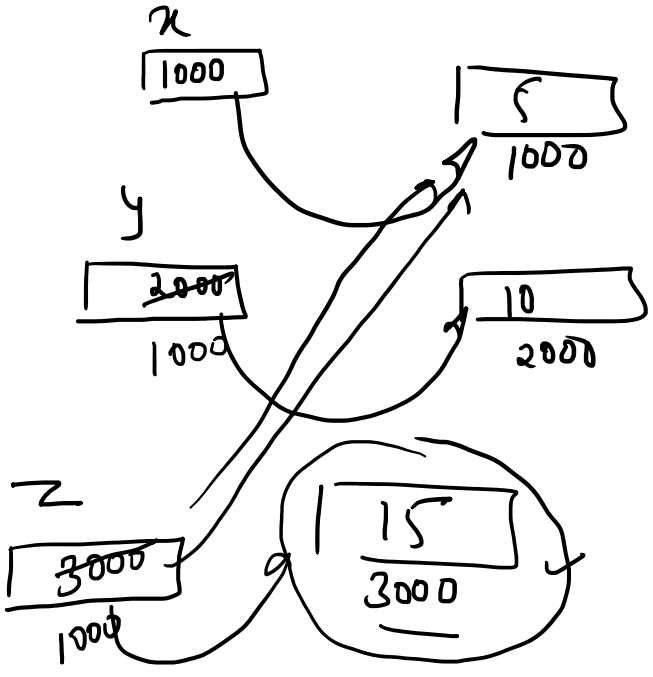
(=) ✓, +=, -=, *=, /=, %=,

**=

var x = 5;

var y = 10;

var z = x+y;

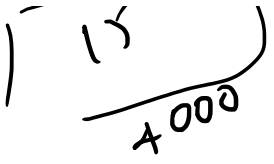


z = x;

y = x;

15

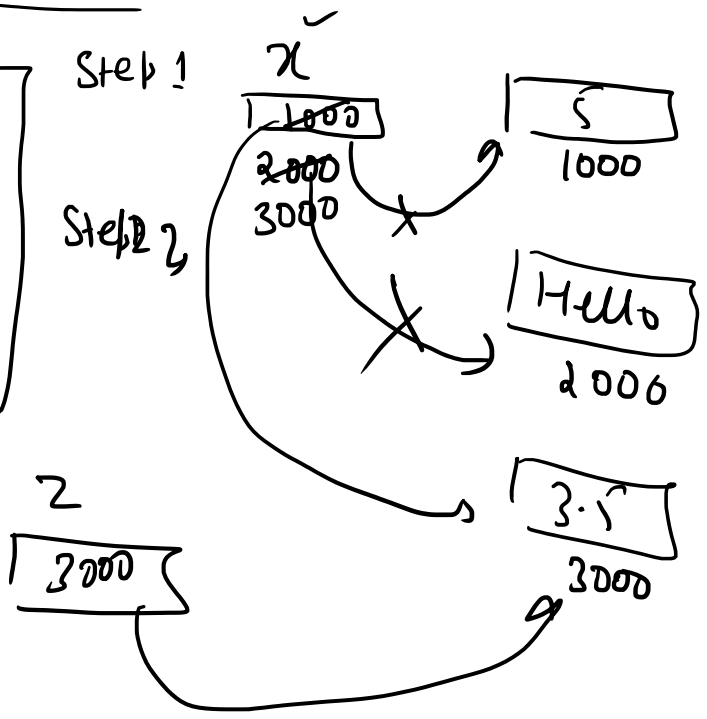
```
y = x;

a = x+y+2;
```



```
var x = 5;
x = "Hello"
x = 3.5;
var z = x;
```

Step 1

Step 2



Java Script → Dynamic Typed

→ Number

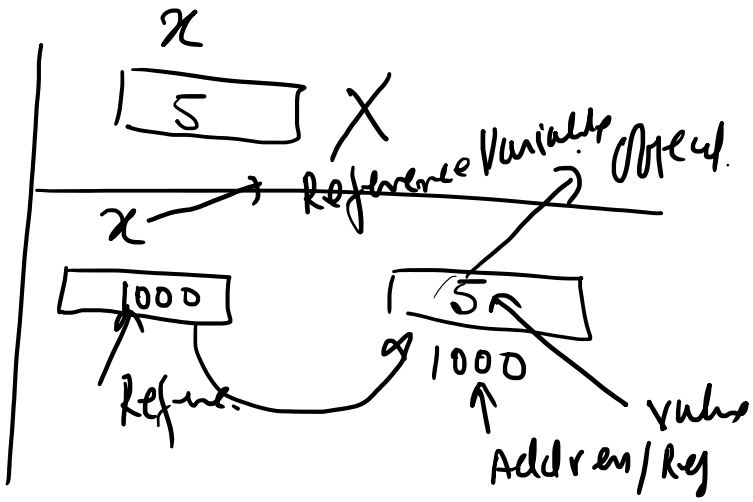
→ String

2 → CETPA

var x = 5;

var y = "Hello";

var x = 5;



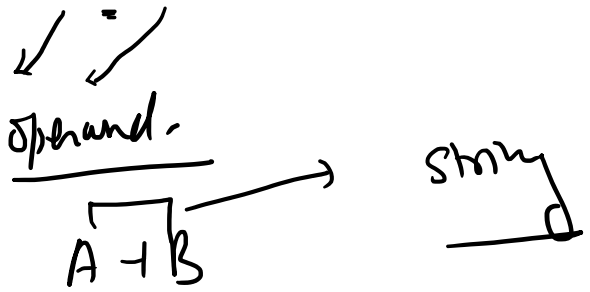
Operators

(1) Arithmetic operator.

+ , - , * , / , % , ** , ++ , --

→ Works on value

C = A + B → Number




```
var a = "Hello";
var b = "Hi";
var c = a + b;      "HelloHi"
```

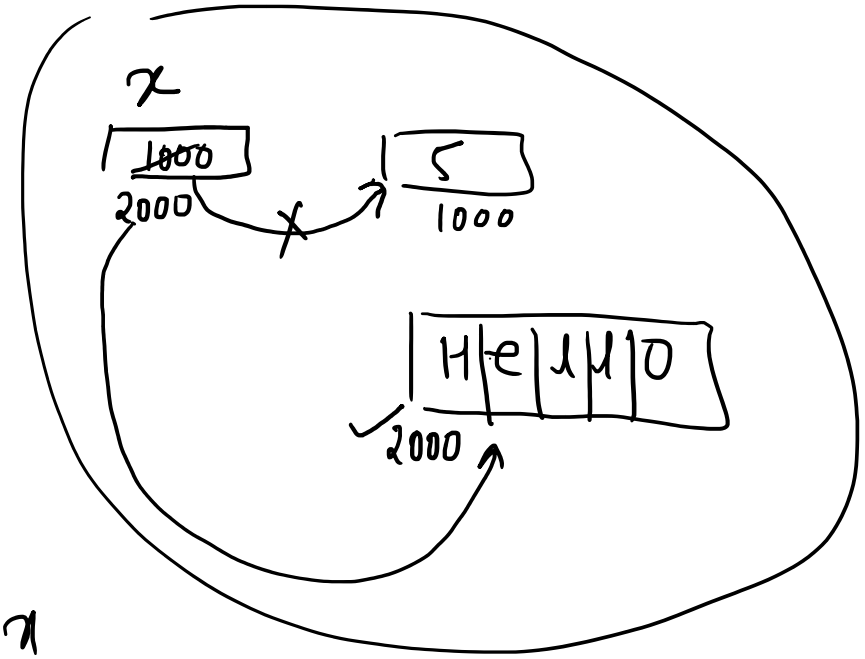
```
var a = '5';
var b = '7';
var c = a + b;
```

② Assignment Operator :-

=, +=, -=, *=, /=, %=, **=

↳ Works on Reference.

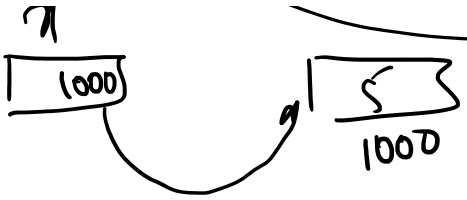
```
var x = 5;
x = "Hello"
```




```
x = 5;
```

x
1000
5

$x = 5;$



$x += 2;$ → $x = x + 2$

$x -= 3;$

$x *= 2;$

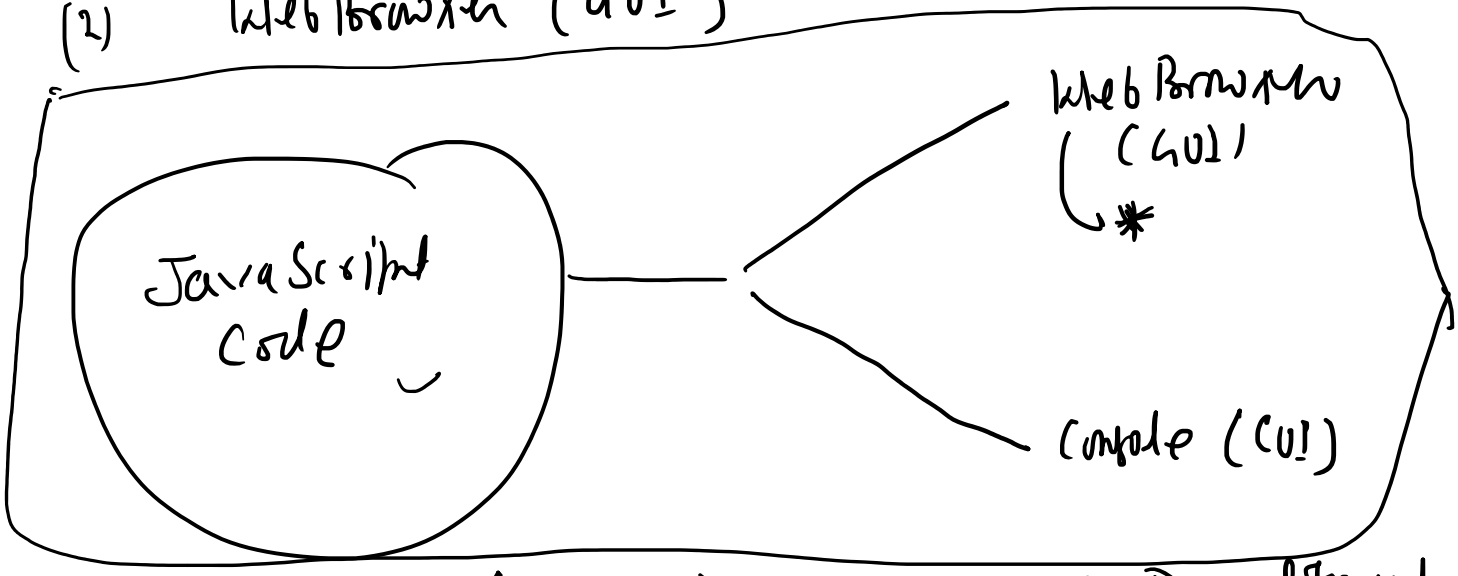
$x \%= 3;$

3. Compare or Relational operator.

Type of Screen in Programing.

(1) Terminal / console (CUI) ☺ character User Interface

(2) Web Browser (GUI)



(3) VS-Code (IDE) Integrated Development environment.

(1) Node JS

Web Designing Batch 28th August → Work Space

JS - Code

→ Console → Input
→ Output

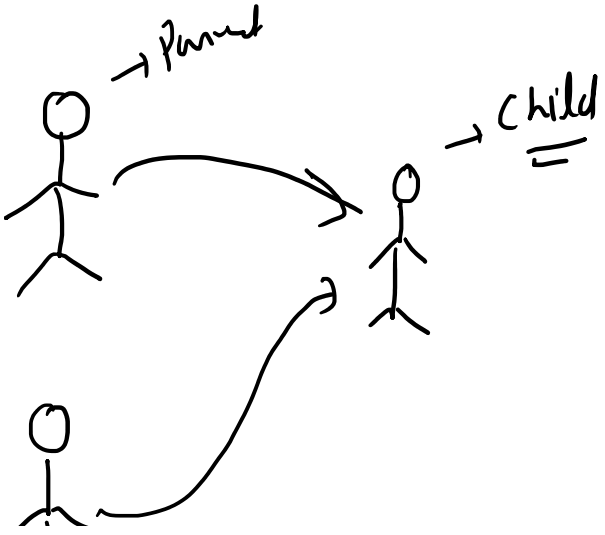
JS function to write data on console.

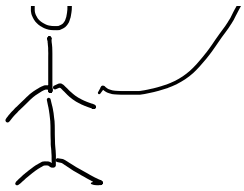
console.log(Comma Seperated Data);

e.g var x = 5;
console.log("Welcome");
console.log(x);
console.log(x, "Hello");

Console
Welcome
5
5 Hello

Data Type
- number
- string
- boolean → true, false.





Third Pe

— 10 ⟶ true

var x = true;

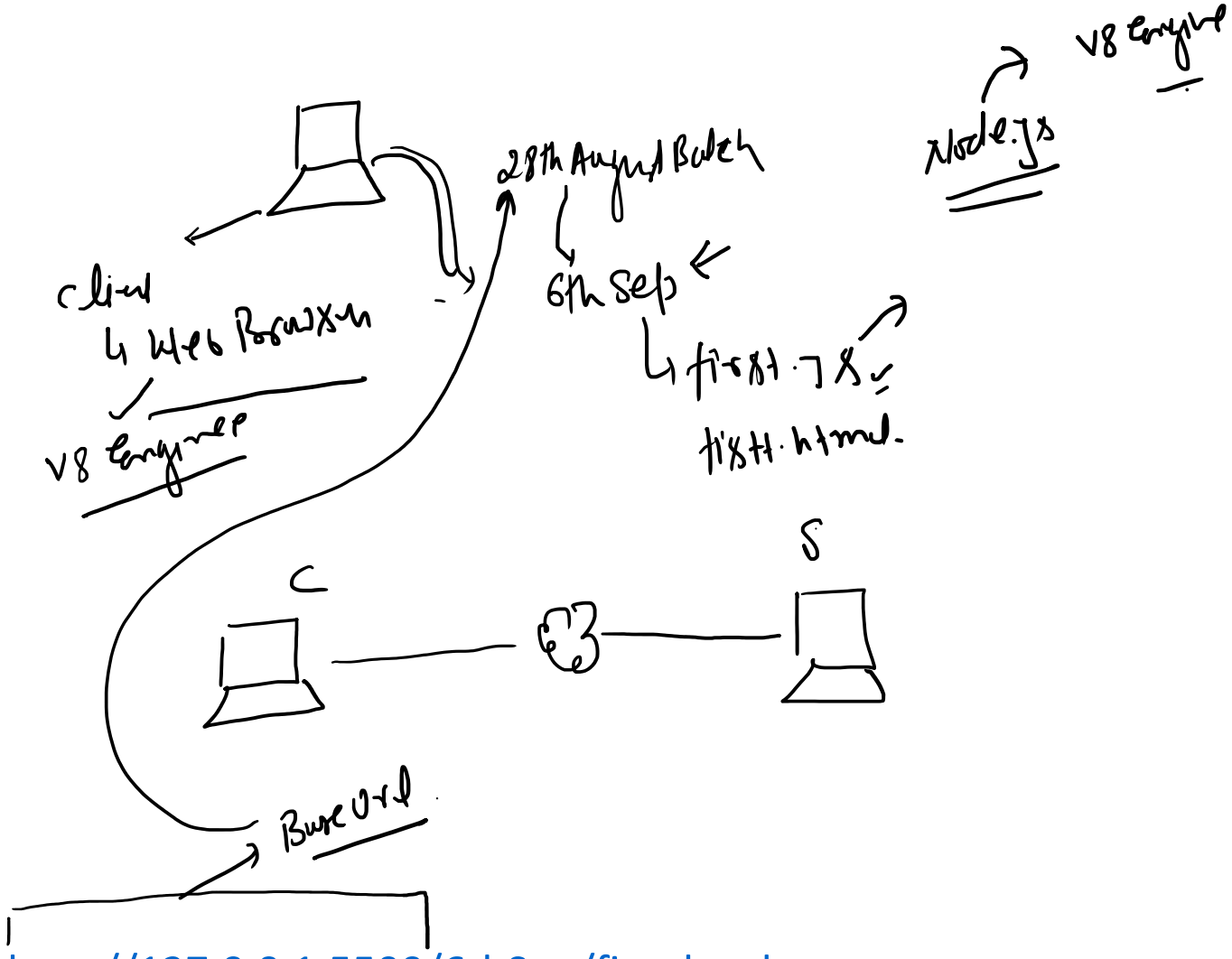
var y = 1;

0 → false.

1 → true

10 → true

Note = Every thing except numerical 0 is true.



http://127.0.0.1:5500/6thSep/first.html

URL

Virtual path

https://facebook.com/

B-URL

(1) We want to collect input in Node.JS Console.

Input/output function for Browser

① Output → alert(string);

'8'

npm is

var no1 = '5';
var no2 = '7';
var sum = no1 + no2;

Type Casting :- It is a technique by which we can convert a data type into another Data type.

General Syntax for Type Casting.

= parseType(Expression);

Type value. e.g

var x = parseInt('5')
parseFloat('13.5')

Type(Expression)

var x = Number('5');

.toString();

"Sum of No = 5"

var fname = prompt("Enter first Name"); Anil
var lname = prompt("Enter Last Name"); Singh

↓

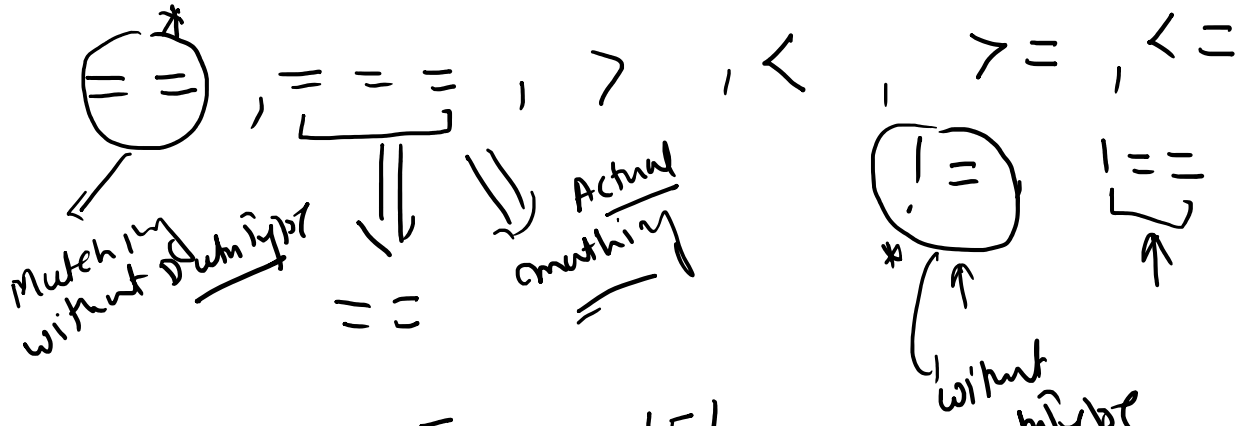
My Name is Anil Singh

var msg = `My Name is ${fname} ${lname}`

⇒ Comparison or Relational Operator.
↳ Works on value.

→ These operators are always return boolean values

→ These operators are normally used with conditional statement.



var x = 5 == '5'

Dynamically typed

false

Boolean

var y = 5 == '5';

var x = 3 > 5;

logical operator :-

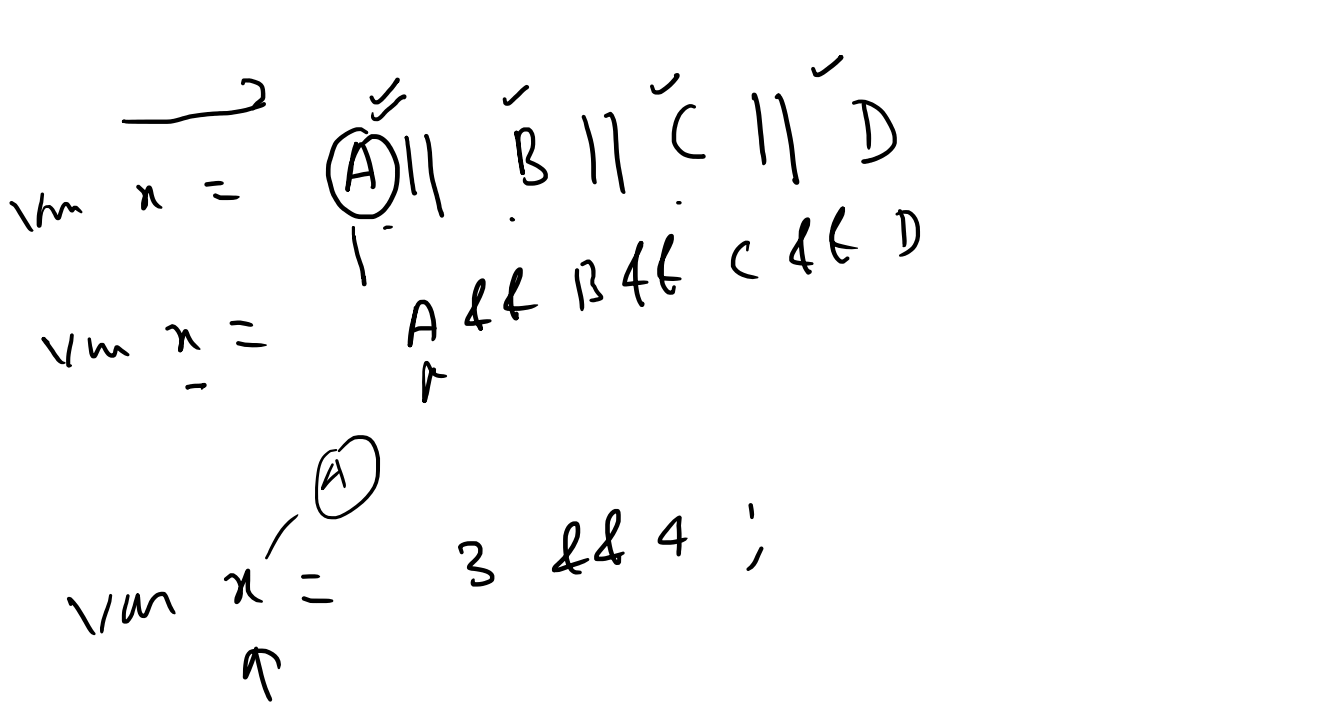
(1) works on values.

(2) Works on Boolean operand.

&& , || , !

and or not

A	B	A && B	A || B
true	true	true	true
true	false	false	true
false	true	false	true
false	false	false	


vm x = A || B || C || D
vm x = A && B && C && D
vm x = 3 && 4 ;

① Node Development Introduction

② Datatype

↳ ① Number
(2) String

var x = 5;

var y = 'Hello' " Hello " ` Hello `

operators

→ + , - , * , / , % , ** , ++ , --

→ = , += , -= , *= , /= , %= , **=

=) == , === , != , !==

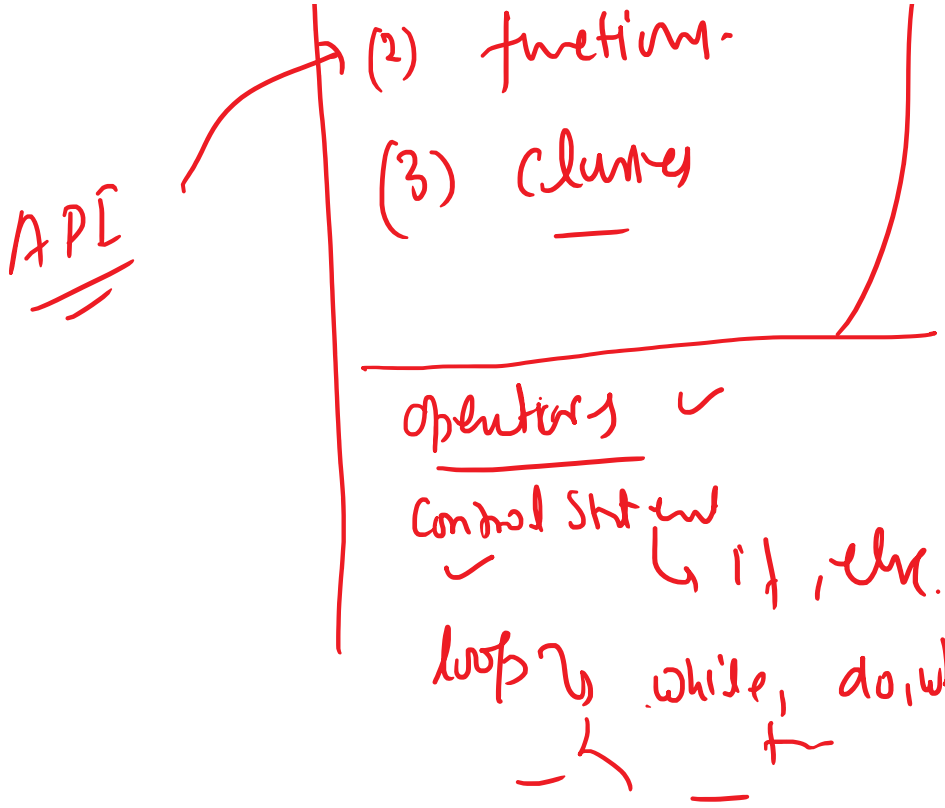
> , <

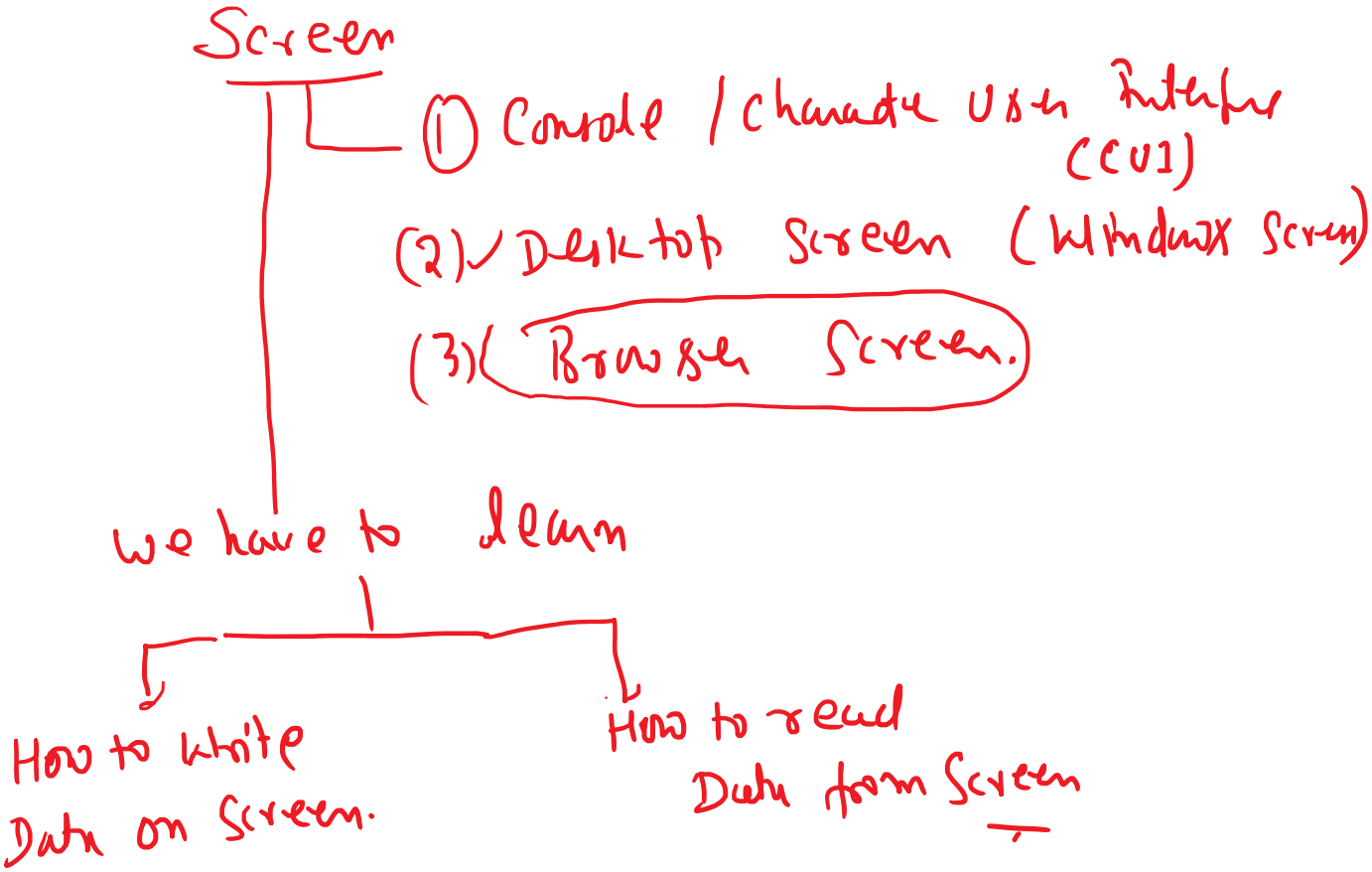
>= , <=

&& , || , !

① Variables / Objects

② functions.

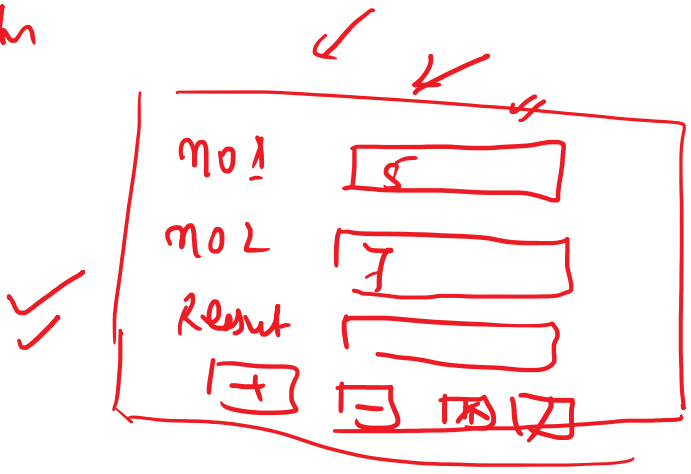




(1) VS Code
(2) Node JS

(2) Node JS

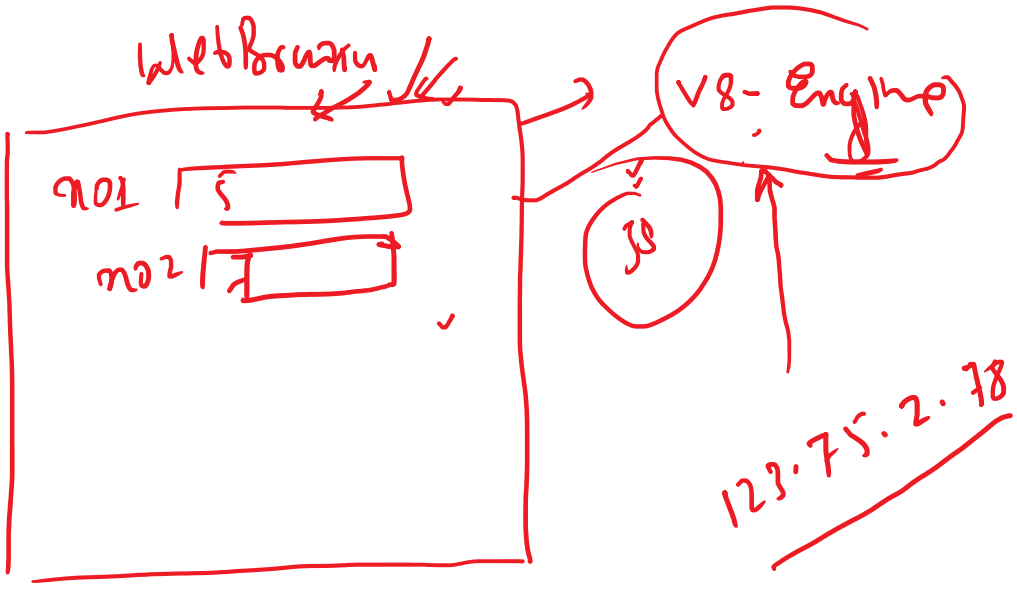
Calculator

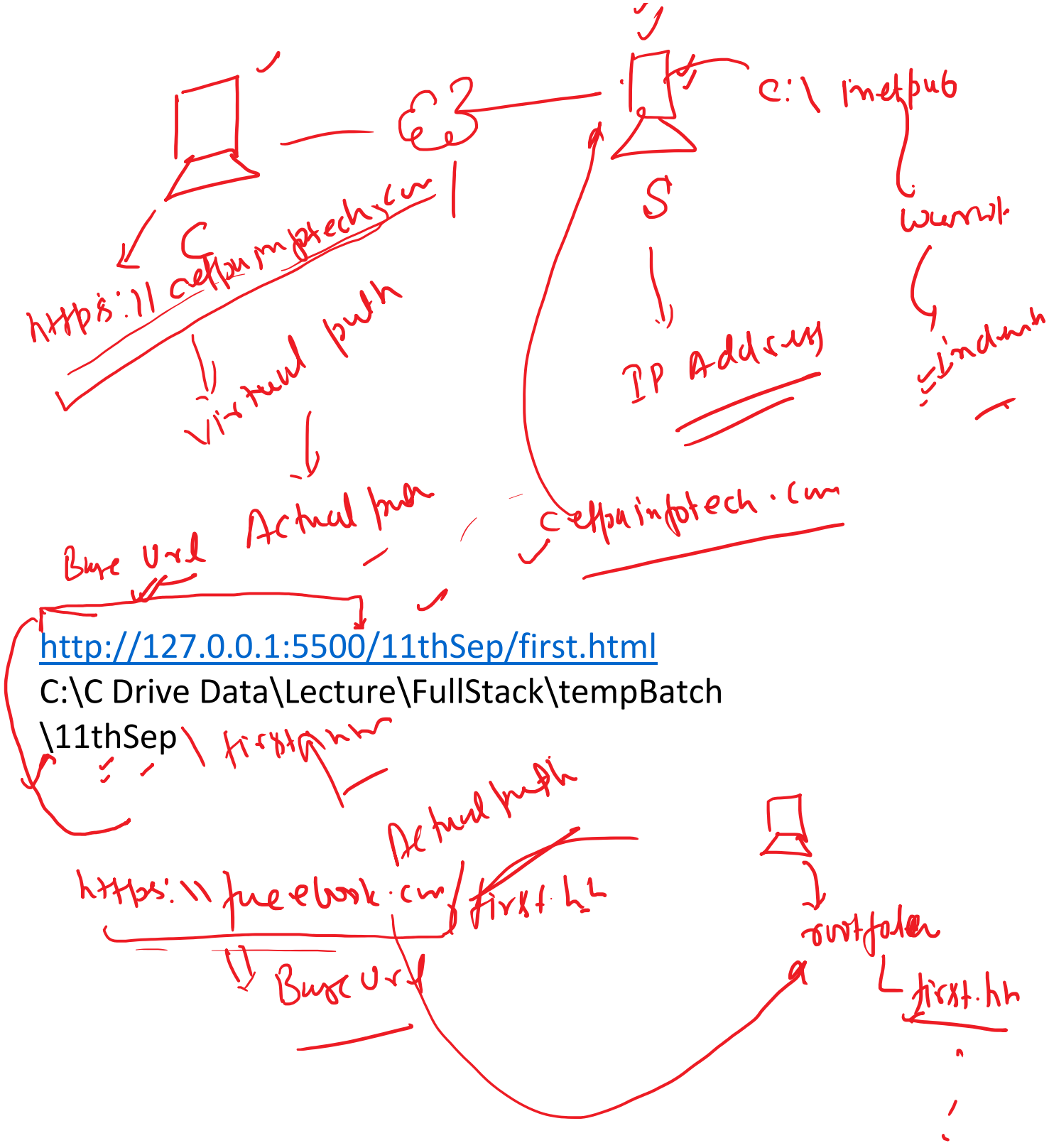


Meaning of Programing

How to Store Data

How to Recive Data




C:\ inetpub
wwwroot
IP Address
Virtual path
Actual path
Base Url
ceppainfotech.com
http://127.0.0.1:5500/11thSep/first.html
C:\C Drive Data\Lecture\FullStack\tempBatch
\11thSep
Actual path
Base Url
first.html

Datatype → Number ✓, string ✓, boolean ✓, null ✓, undefined ✓

Collection of Datatype → Array ✓

User Defined Datatype → Object, class

HTML → tags or Elements → 140 ✓

<html> ✓

tag → keyword within angular bracket is called tag

Element

General Syntax to write Element.

<tagName> Content </tagName>

opening tag

closing tag.

Content → Text, HTML

Text

HTML

opening tag + content + closing tag

Element.

<tag1> → parent

<tag2> → child

Hello

<tag3>

Welcome.

<tag4> <tag5> <tag6> <tag7>

<tag1>

<html>

<head>

</head>

<body>

<h1> Welcome.. </h1>

</body>

</html>

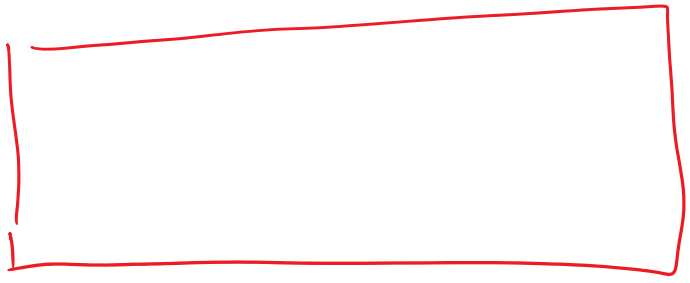
attributes :→ attributes are properties by which we can customize elements of html.

General Syntax to write attributes.

<tagName attribute1 = "value1" attribute2 = "value2" ..... > content </tagName>

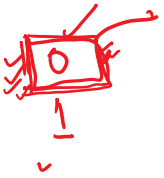
var x = "Hello"

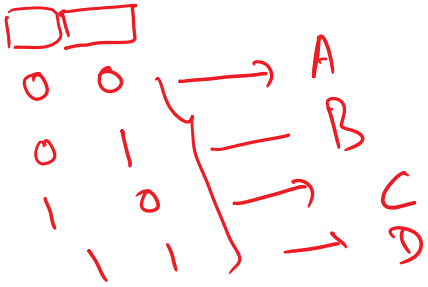
var a = 'H'



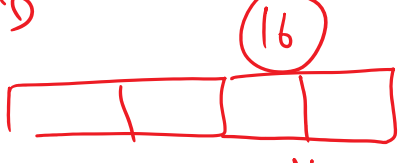
Byte

bit





A
B



$0 - 2^8 - 1$
$0 - 255$

$0 - 2^2 - 1$
$0 - 3$
0 1 2 3

$0 - 2^{16} - 1$

Test.JS

Testpage.html

<html>

<body>

<h1>

Test.JS

h1.content = "

<p h1>

<script src = "./Test1.JS">

→ (1) h1, h2 - - - - - h6

<p>

=

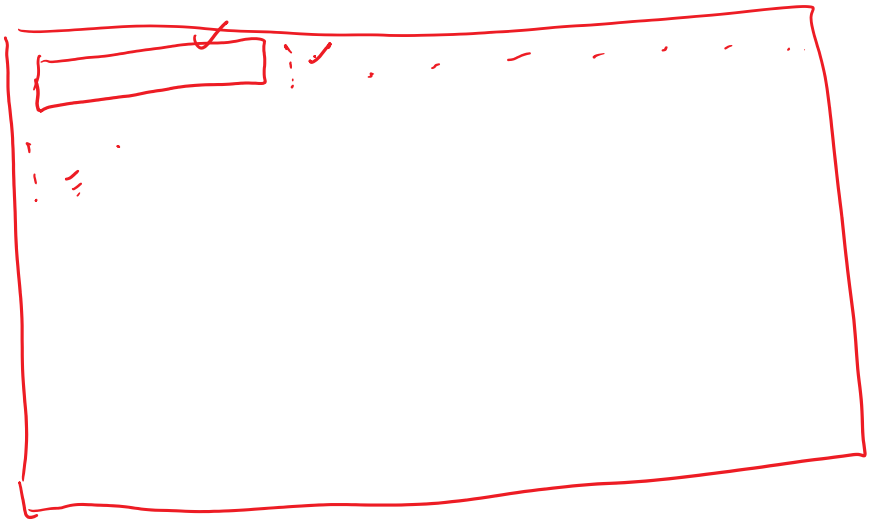
<header>

<nav>

Tag

Normal tags

Symmetic Tags

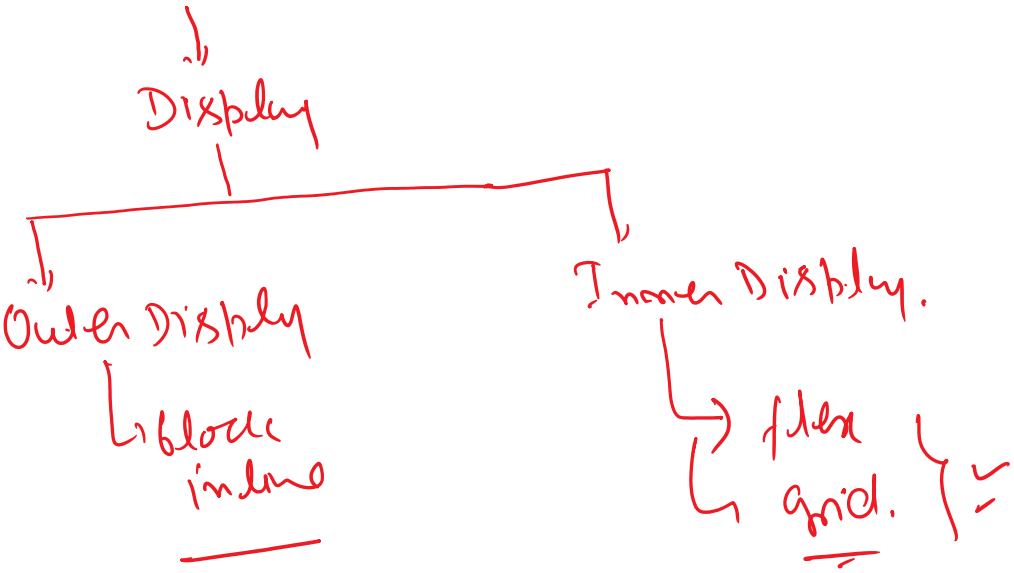


Display

- block
  - (1) Start with New line.
  - (2) Cover whole line.
  - (3) we can change hight and width of block elemt
- inline
  - (1) start with cursor position.
  - (2) cover only required space.
  - (3) we cant set width of inline elemt.

h1 —— h6 → display block

Elemt


Display
Outer Display
block
inline
Inner Display.
flex
grid.

Html →

① H1 → H6
② p
③ pre
④ div
⑤ span
⑥ <a>
⑦ <img>

Attributes

Global Attribute

local or element specific Attribute

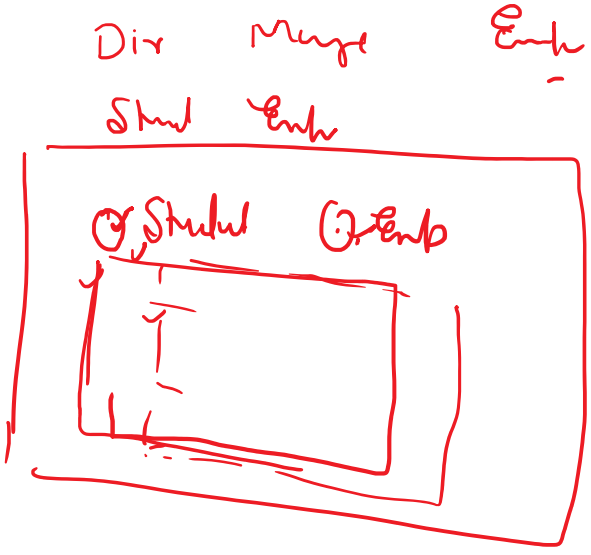
  → display block

  → display inline

Global Attributes :-

① hidden ✓
② div
③ title.

④ style ✓



General Syntax to write Style Attribute.

style = " "

semicolon seperated (property of style = value)

style = "background-color: red; color: black;"

property : value

Type of CSS
(1) Inline CSS
(2) Internal CSS
(3) External CSS

autofocus

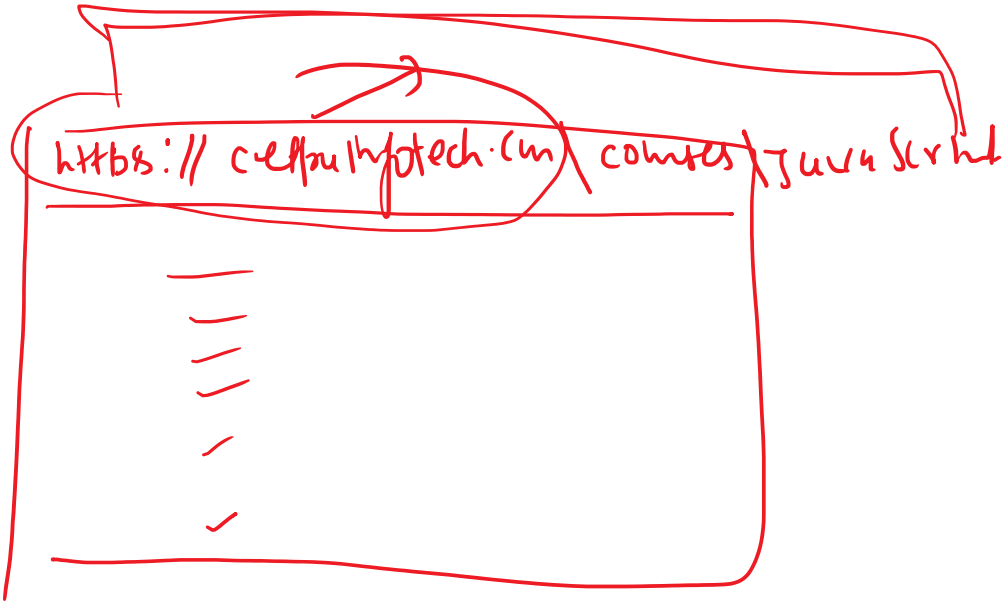
tab index

id = "abc"

→ It is used to uniquely Identify elements.

Normally it is used with java Script and CSS.

<a>



<a href = "Path" , target = " ",

① Absolute Path

② Relative Path

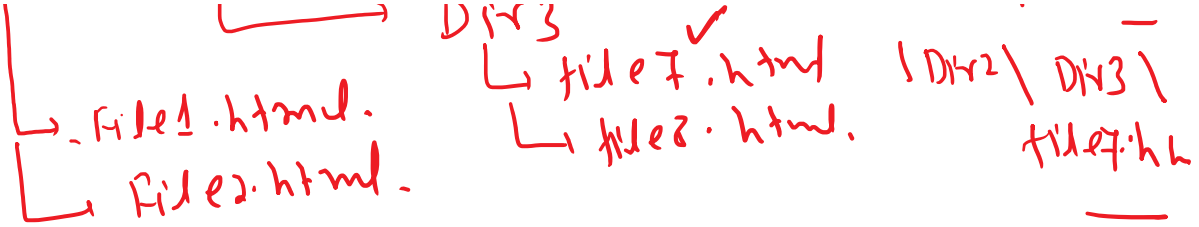
28th Aug Path ~ Root Directory

Dir 1 → file3.html → "\file3.html"
file4.html → \dir1\file3.html

Dir2
→ file5.html
file6.html

Dir3
→ file7.html

~~Dir~~
"\Dir3\file7.html
\Dir2\Dir3\



w.r.t → Root Directory = "\"

File1.html → "\file1.html"

file2.html → "\file2.html"