

`<script src="script.js"></script>`

Date:

(frame work for mobile app
react native ; phone gap etc)

① Software Development (Electron)
Ex - vscode , framework etc

Lect #02 Miss Hina Declaration & Assignment

VARIABLE ES6

Before ECMAL script use
(var) before - 2015.

- var is old version in 2015
- ES6 introduced in 2015
Modern Java script.
 - let
 - const use in modern java script.

Var a=6 ; meantness is

Var a=5 ; declare everytime

ABB

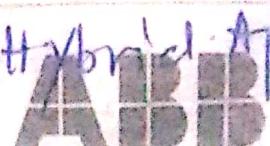
ES6 - Advance level.
• minimum 31 letters accepted
java script

ES6 is standard for javascript
after that every year new
changes came ES7, ES8, ES10 etc.

- ① JS is a light-weight object-oriented programming language
- ② use in form submit.
- ③ in client-side validation.
- ④ pop up / event on click

USES

- ① client side execute / browsers.
(JS query, React JS, angular JS)
- ② website - server - side (node.js, Express.js)
- ③ mobile Development (Hybrid App)



Date:

text shadow in order

- horizontal, vertical

, blur,

LECT # 01-02

JAVA SCREPT

- ① Java Script was invented by Brendon Eich in 1995.
- ② It was developed for Netscape, and become the ECMA -262 standard in 1997.
- ③ European Computer Manufacturers Association Ecma International (formally European Computer Manufacturers Association) is an organization that develops standards in computer and technology.
- ④ ES1 to ES5 (1997 to 2009)
- ⑤ After that in 2015 (major changes - to follow the rules and regulations) this is called Ecma Script / Es 2015 / Es6

ABB

Variable & Data types in Java Script

Data type in Js

① number data type

```
let answer = prompt("Do you  
want to send payment?/(n?);")
```

in answer variable value will
be store and you can print
it.

Print / Display in JS

Date:

- On Bro~~oser~~
#3

window. document. write("Hello",
document. writeln("Hello").
)

It's mean it's belong to
other object / sus object.
to print on browser.

On Console

console. log("Hello")

Pop up:
window. alert("Hello")

Taking Input from user in JS

Prompt: In java script we
use the prompt() function
to ask the user for input.
As a parameter we put
text "ABD" we want to desf
to the user & then the user
presses "OK" the input value
is returned.

ABD is returned.

Variable

- var
- let
- const

Date:

Let# 2 and Let# 3

DATA TYPES

- Number eg let age = 34; complete type of age
 console.log(age); → print "age"
 (number) console.log(age); → print value
- String let full Name = "Lubna";
 complete type of full Name → (String)
 type of full Name
- Boolean let is Pass = true;
 type of pass console.log(is Pass); → print true
 boolean
- null let roll No = null;
- undefined
- Array
- objects
- functions

Variable Rules

const abc = "hello";
let abc = "hi";

1. Variable case sensitive. (variable name same)
but cont two var.)
2. Name of variable is not key word.
3. In var, (let, as, add, if, for, 2, \$34y) only these are include in variable
4. Variable not start with number

ABC

TYPES OF VARIABLES

- **var** (used before Es6) In old version of javascript, this type of variable can be declared again and again in a file.

After Es6 in modern & advanced javascript these 2 keywords are used for declaration of variables.

- **let** (Its value can change any time in programming language and can declare and assign in 2 steps.)

eg : `let name;` (declare)
`name = "Hello";` (assignment)

- **const** (It is used for constant value eg pi value). Its value cannot be changed, its value must be assigned at the time of declaration.

ABB eg `const name = "Hina";` (declare and

(both are 2 different variables)

- variables can be consist of alphabet, number, dollar sign and underscore.
- Variable name can't be start with digits (number) its first letter.
- no space allowed.

As a good programmer

- Your variable name should match with its contents.

- When you want 2 words join in variable name, so first word start with small letter and 2nd word start with capital letter.
- eg. FullName, rollNumber etc

AIRR

Date: ①

20/07/09

Variables

- Variable is just like a container.
- Variable is used to store information.
- It reserves space in memory.

Naming Variables in JavaScript.

Rules:

- Variable's name can't be any keyword. eg alert, prompt etc.
- Variable is case sensitive.
Same name in capital and small letters are different.

ABB

eg

Name or name

Date:

Lect # 04 / Operator

66 Array are in the Objects.

OPERATORS IN JS:

□ Arithmetic Operator

$a+b$, $y+5$ (operand) + add

+ (operator)

o Exponentiation

o Increment • Decrement % modulus

□ Assignment Operator

=
 $a = 2$; left side = right side

$t = a + 4$; $a = 2$ and 4

~~*=~~ $a = 4 \neq a = a + 4$

~~%=~~ $a \% = 4 \neq a = \% 4$

~~!=~~

□ Comparison Operator

$= =$ equal to

$>$ not equal to

$>$ greater than

$>$ greater equal

$<$ less than

AIRB

\leq less equal

(Practice)

Date: _____

Lec # 9

16

dorazaple.

All are variables

Let `items = {
 object
}`

name: "lip gloss"; (string)

price? 250, (number)

rating of 4

available : true, (boolean)

offer : 20 ; (number)

Access

item. Power

> 280

(ii)

Date: _____

assign in same sentence).

Comments in js

- Single line: // let name = "Lubna";
- multi line: /* */

Variable scope

1. Block Scope Variable:

If variable declare in block of codes (in curly braces {}). It will alive only in block and will not be accessible after curly braces.

2. Global Scope Variable:

These variables used globally in whole program.

ABB

Arithmetic

let a = 9;

b = 5;

Operator Date:

1) document.write(a, "+", b, "=", a+b);

2) document.write(a, "-", b, "=", a-b);

3) document.write(a, "*", b, "=", a*b);

4) document.write(a, "/", b, "=", a/b, "(br)", "modulus (remainder)");

5) document.write(a, "%", b, "=", a%b, "(br)");

(exp) document.write(a, "**", b, "=", a**b, "(br)");

increment Unary operators

if a++ ; a = a+1 ;

if a-- ; a = a-1 ;

a++ ;

document.write(a); Post inc
(a++); Pre inc

b-- ;

document.write(b); Post dec

WELCOME () ;

let

answeringForm (y or s) ;
document. write (answeringForm) ;

alert

document

writable

library operators

post increment - output

pre increment + +

post decrement - -

pre decrement - -

- Logical Operator
- logical AND $\&$ $\&$
 - logical OR $|$ $|$
 - logical NOT $!$

Condition 1 & Condition 2

Conditional Operator or
if statement

if - else statement Ternary Operator
 condition? True
 output : False

If - else If Statement eg
 $age > 18 ? "adult" :$
 "not adult"

1 L# 04

function Welcome() *function
 can not
 be
document. Write("Welcome"); execute

function sum (a, b)

{
 let c = a + b;
 return c;
}

ABBR

Date:

Expected Operator

If $a > 2$ & $b > 5$)

Alert ("both conditions extreme")

Alert ("years - conditions true.")

Practices Session

Input

Get input from user a number
and decide it is divisible by
3 or not and print it is

divisible by 3 or not 3

Designment of
more sheet of

ABBB

117

Date: _____

documentarische (b), film

Lek a = 2,9, 11 number
plcet 5 = 2,4, 11 strong

$a == b$ true // boolean
 $a == b$ false.

* If data type is not same
they are ~~of~~ one as result
example,

$$\frac{a}{6} = b \quad \text{False}$$

$$1 = 6 \quad \text{True}$$

Comparison operator

Feb 28th A number
of hawks were seen.

If $C_{02} = b$) { in smog

document, write. (no⁴)

If ($a \neq b$). \rightarrow True

'pre' decrement - a

L # 05

Comparison Operator

$=$ = (equal to)

$\Leftarrow =$ (equal to +
same data type)

$!$ = (not equal to)

$!=$ (not equal to
& data type)

\neq

* (Result is in boolean)

Result is True / False

A B B

! = not operator
(long range)

L# 06

Date:

Assignment lesson
operator

document, write { 26r } (th)
subject { 11th } { th } marks { 16h }
{ th out } of { 11th } { 16r } ;
left - roll one = 29 "

name = "Leibniz"

"all are done in
group system "

" mark sheet done

L# 06

Date:

Assignment - W30ne Operator

document, write $\langle \text{tr} \rangle \langle \text{th} \rangle$
 $\text{subject} \langle \text{th} \rangle \langle \text{th} \rangle \text{marks} \langle \text{th} \rangle$
 $\langle \text{th} \text{ out of } \langle \text{th} \rangle \langle \text{tr} \rangle \rangle;$
left roll no = 29;
name = "Lebron";

"all are done in
mark system"

"Mark sheet done"

- Logical Operator
- logical AND & &
 - logical OR ||
 - logical NOT !

condition 1 & condition 2

Conditional Operator:

If statement

Ternary

operator

if-else statement

condition? True
output: . False

output:

eg
age > 18? "adult":
"not adult"

If-else If statement

age > 18? "adult":
"not adult"

L# 04

function welcome()

*function
cannot
be

{
document. write("welcome"); execute

function sum(a, b)

{
let c = a + b;
return c

New ABB
read.

L#08

~~SWITCH STATEMENT~~

Date:

- Let reply = prompt ("Do you want
to continue...") ;
switch (reply)

case "Y":

document.write ("continue");
break;

case "Yes":

document.write ("continue");
break;

case "N":

document.write ("end");
break;

case "no":

document.write ("end");
break;

default:

{ document.write ("wrong input");

2-2-2024

Mrs. H. STRINGS

Date:

String

- String is a sequence of characters used to represent a text.
- It's primitive data type.

we can create string by using template literals and in single and double quotations.

String Creation and manipulation:

- let str1 = "I am learning JS"
 // double.
- let str2 = "I am learning JS"
 // single

let str3 = `I am learning JS`
String "Template"; // template literal adjacent to key in key board.

APP

Sniffer Statement

L#08

- Let reply = prompt ("Do you want to continue...")
switch (reply)

case "y":
document.write ("continue");
break;

case "yes":
document.write ("continue");
break;

case "n":
document.write ("cancel");
break;

case "no":
document.write ("cancel");
break;

default:
document.write ("wrong input");
break;

String

String (Abstract Data Type)

Let `str = "I am learning Java"`

- `str.length()` // To remove spaces from start and end.
- `str.substring()`
- `str.replace()`
- `str.toUpperCase()` // Changes it uppercase
- `str.toLowerCase()` // changes in lowercase
- `str.replace(" ", "+")` // replaces search word and replace (Case sensitive)
- `str.includes("js")` // Search word is if no found / returns false

(3)

L#07

Date:

Some String Properties

and method

- let str1 = "I am learning JS".
- let str2 = " CSS ".
- let str3 = " html ".
- Position / index start with 0 in string.
- to find length str.length
- To join strings document.write(str1 + " " + str2) / (str1, " ", str2)
- by concat()
- let str4 = str.concat(str2) / str: concat(str2, str3) document.write(str4)

Abb

Date: _____

LECTURE 09

Array Method & FOR OF Loop

Array (Primitive data types)

- Store multiple value in single variable.

- value written in square bracket [] .

- values separated by comma (,)

- each position is called "Index"

- Each value call through index number starts with 0

- eg arr[0], arr[1]

syntax:

```
let info = [6, "Rubna", "Computer"];
console.log(info);
info = [ ]; // to empty array
```

array ,

ARR

Y

Q

Date:

~~String Operations~~

1# ~~7~~ ~~8~~ (repeat)

Let str = "I am learning Js";

- o str.trim() // to remove space from start and end.
- o str.trimStart() //
- o str.trimEnd() //
- o str.toUpperCase() // Change in uppercase
- o str.toLowerCase() // change in lowercase
- o str.replace("JavaScript", "Html") // search word and replace (Case Sensitive)
- o str.includes("js") // search word is if no found / return boolean

LH-02

Date: _____ "Loop"

Loop

- * There are two types of loop
 - ① Finite
 - ② Infinite.

- to execute a piece of code again and again
- i is block scope variable.
 - use for iteration / counting
- First step Initialization

- 2nd condition check when control condition true block of code execute

- 3rd step update

for { let i = 1 ; i <= 5 ; i++ }

LECTURE # 10

Date:

METHOD & LOOP FOR INT WHILE do while Loop

Iteration: 0 1 2 3 4 5

let arry = [1, 2, 3, labors, 54, 53]

document.write(arry.slice(3));

(3,5)

document.write(arry.splice(2, 3));

For Loop: (Loop)

for (let i = 1, i <= 5, i++) { }

document.write("hello");

}

// i is block scope variable.
use for iteration / counting

First step: initialization

and condition check till condition

body block of code execute.

3rd step updation

Abb

Date:

- `bool - index of ("Is14");` // to find any word's position in array
- `book - slice (startInd, endInd);`
 - // don't change in original array.
 - // return a slice piece of array
- `book - splice (startIndex, delCount, next);`
 - // change original array
 - // add, remove and replace.

example

let arr = [1, 2, 3, 4, 5, 6, 7];
arr.splice(2, 2, 55, 56);
// 2 index per 3 // 3 and 4 remove
// replace them 55 and 56.

arr.splice(3, 0, 44); // if you don't want to delete any item

ABB // 3 index add 44.
aa.splice(2, 3); // if you don't want to delete items // 2 index and del 3.

Properties and Method in Array

let book = ["Maths", "English", "Isl", "Cm"]

- ① book.length // length of array
- ② book.push("Isl"); // add word in array in the end
- ③ book.unshift("Isl"); // add in start of array
- ④ book.shift(); // remove a word from start
- ⑤ book.pop(); // to remove word from last and return updated array
- ⑥ book.toString(); // convert array in string
- ⑦ book.concat(book) // join 2 or 3 array
put in 3rd array
not give to
not add array in 1st array.

ABB

NON PRIMITIVE DATATYPES

Array:

- Store multiple value in single variable.

- Value written in square brackets
[]

Syntax:

```
let info = [6, "Hubna", "Computer"];  
console.log(info);
```

Print:

```
document.write(info);  
document.write(info[1]);
```

2. OBJECT:-

- Store multiple value in single variable.
- value written in curly brackets { } in pairs with keys .

Date:

for of loop (even number)

let arr = [1, 2, 3, 4, 5, 6];

for (let i of arr)

{

if (i % 2 == 0) {

document.write(i, "
");

}

}

while and Do while loop:

- Print sum of 1 to 20 numbers by using while loop and do while loop.

eg // for while

let i=1

while (i<=10)

{ document.write(i, "
");

}

while (i<=10); let i=i+1

do

{ document.write(i, "
");

i++;

white (i<=10); if false out of loop
(practise alone) .

ABB

white (i<=10); if false out of loop

For of / for in loop

- Print odd number of this array = [34, 45, 57, 63, 71, 2, 1, 5, 3, 6, 7] by using for loop .
- creation an object & and print keys & and data with it by using for in loop .
- To print key as well

eg

For in loop : let i=1; i<=6; i++

for (let key in student)

{

document.write(key)

}

use for next line.

For value {

document.write(key, student[key],)

}

ABB

Lesson 11

Date: _____

ans = $P_1 + P_2$

return ans

function definition

function on
involve

function sum (P_1, P_2)

: Let ans = sum(2, 3);

ans = $P_1 + P_2$

return ans;

}

last

Arrow Function (ES6)

const fname = () => {} fname()

block

of

code

}

or

const mult = (P_1, P_2) => {}
let ans = $P_1 * P_2$;

return ans;

ARBB

}

LEC #10

Date: _____

Function in JS

- * A Java Script function is a block of code designed to perform a particular task.
 - * A Java Script function is executed when "something" invokes it (calls it).
- function definition
- function fname()
{
 // block of codes
}
- function invoke (call)
- fname();
- Execution in JS Function invoke
- | | |
|---|--|
| function fname(p ₁ , p ₂) | fname(p ₁ ,
p ₂) |
| {}
document.write(p ₁ +p ₂) | or
fname(); |

A B C D E

3

Date:

Lef 03

• Syntax:

let student = {

name: "Lubna",

rollno: 029,

class: "JS"

}

Print:

document.write(student);

document.write(student.rollno);

Loops

to execute on piece of code

o Finite loop and infinite loop

o Finite loop

Date: _____

Practical Question

- Print counting 1 to 100
(done) ✓
- Print your name 20 times
on screen
(done) ✓

- Print a table of any number by taking user input.
~~print~~ input

LECT# 08

Date: _____

STRINGS MANIPULATIONS

- \n use for print text in new line
 - \t use for spaces (\tab) more than single space in text
 - \\ use for single \ in text.
 - \\ use double quotations in string.
- LOG PS
- to execute a piece of code.
 - finite loop and infinite loop
 - infinite loop (ending point)
 - Finite loop (not end) memory full / computer hangs.

Date: _____

(One) w

Practical Question

- Create function
- Pass string as parameter
- Print vowel in it
- And return containing number of vowels in string ,

Abb

Date: _____

- Be a good listener.
- Show humbleness.

How to promote Civic Sense

- To know everyone importance of civic sense.
- Be positivity in yourself.
- Be become ourself.
- Be Pro active.
- Start be ourself.
- We need to teach civic sense and attend session for awareness.
- We need to teach our child early hood.
- Be the Change
- Search positivity around us.
- Again start with ourself

ABH

- Doing individualism.
- Shows patience & thoughtful

Civic Sense is backbone of our

- ① What is the primary goal of civic sense?
- (b) ✓ Individual success
 (c) Personal Satisfaction
- ② How can individuals contribute to improving civic sense in their neighbourhoods?
- (c) Engaging in positive civic behavior.
- ③ What role does civic education play in enhancing civic sense among citizens?
- ④ Significant contribution
- ⑤ In what way local governments promote and enforce civic sense in public spaces?
- ✓ (b) Implementing strict regulations
 (c) Encouraging littering. ABB

heet #12

Date:

(Miss
Samreen)

CIVIC SENSE

"It refers to the awareness and consider of one's responsibilities and duties toward society."

Importances

- Social Ethics
- Law
- Rules and Regulation.
- Learn and aware ourself and others initially.
- Society should be peaceful, clean and cooperative.
- It enhance the overall quality of life for everyone.
- Must follow rules and regulation first.
- have to courage to say sorry.

ABB

society

Date: _____

So If you want positive
change try by yourself.
on your own work on yourself

BB