

#4

[2:04:20]

//_

4#

CONTROL STATEMENT AND LOOPS

- IF.. ELSE
- Switch Statement
- While Loop
- Do-While Loop
- For Loop
- For in Loop
- For of Loop
- Conditional (ternary Operator)

IF-Else

Truth • The If statement is true the show if statement
Falsy • If conditions is false then another statement executed.

EX if raining = raincoat
else no raincoat

Programme

```
var tomr = 'rain';  
if (tomr == 'rain') {  
    console.log('take a raincoat');  
}  
else {  
    console.log('No need to raincoat');  
}
```





⇒ Write a programme that works out whether if a given year leap or not?

Leap year mean - 366 days

How you know

✓ Any year exactly divide by 4

X Any year exactly divide 100 & not divide by 4 ex - 2100, 2200

✓ Except it can exactly divided 400 ex - (2000, 2400)

Programme

Var year = 2020;

if (year === 0) {

console.log("leap year")

if (year % 100 === 0) {

if (year % 400 === 0) {

console.log("leap year")

}

else {

console.log("not leap")

}

}

else {

console.log("leap year")

}

}

else {

console.log("not leap");

}

⇒ What is truth and falsy values in JavaScript?
We have total 5 falsy in JavaScript

- 1) 0
- 2) "" empty
- 3) undefined
- 4) NaN
- 5) false.

```

if (score = 0, "", undefined, null, NaN, false) {
    console.log ("OMG, we loss the game");
}
else {
    console.log ("Yes, we won the game");
}
⇒ Yes, we won the game.
  
```

2# Ternary Operator :-

It is Only operator in JavaScript that take three operands.

Syntax -

Variable name	=	(condition)	?	Value1	:	Value2
↓		↓		↓		↓
var age:		(age > 18)		True		False

programme: Vote are eligible

Ternary
operator

```
var age = 17;
console.log((age >= 18) ? "You can vote" : "You can't vote");
```

Note

* three operand

⇒ You can't vote

* If-else - shorten path

3 # Switch Statement (In input)

A switch statement use any value given then result is another given then result.

ex ⇒ Only one type → circle, triangle, rectangle

Definition:

progfi

```
var area = "circle";
```

```
var PI = 3.142, l = 5, b = 4, r = 3;
```

```
switch (area) {
```

```
  case 'circle':
```

```
    console.log("Area of circle: " + PI * r * r * 2);
    break;
```

```
  case 'triangle':
```

```
    console.log("Area of triangle is: " + (l * b) / 2);
    break;
```

```
  case 'rectangle':
```

```
    console.log("Area of rect is: " + (l * b));
    break;
```

```
  case default:
```

```
    console.log("Enter valid data");
```

```
}
```

Output
Circle

break used

- Terminate the current loop, switch or label statement and transfer programme control to the statement following the terminated statement.

4# While-loop

A statement create a loop the execute as long test condition evaluate true.



Programme \Rightarrow print to 1 to 10 numbers

Var num = 0;

//initilizer

while (num <= 10) //condition

//block scope $\left\{ \begin{array}{l} \{ \text{console.log (num);} \\ \} \text{num++;} \end{array} \right.$ //infinite loop \rightarrow //iterate

ex-

5# Do-While Loop

Var num = 0;

do {

console.log (num);

num++;

}

while (num <= 10)

//infinite loop



While loop differ from Do-while loop;

- In while loop first condition check then execute.
- In Do-while loop first execution then check the condition.

6 # For Loop (var num = 10; num < 10; num++)

(first)

Syntax for (initializer ; condition ; iteration)
 {
 // code execute
 }

Programme

for (var num = 20; num < 10; num++)

{
 console.log (num)
}

Use debugger;

All Doubt →
clear