

Javascript expressions

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Ternary Operator

- Replacement of if-else statement
- Say we want to write function

```
function doubleLarger( x,y){
    if( x> y)
        return x*2;
    else
        return y*2;
}
```

- If else can be replaced with ternary expression

condition ? true_expression : false_expression

```
function doubleLarger( x,y){
    return x>y ? x*2 : y*2 ;
}
```

Can we simply the above function?

```
function doubleLarger( x,y){
    return (x>y ? x : y) *2 ;
}
```

- You can do something like

```
function doubleLarger( x,y){
    (if( x> y)
        return x;
    else
        return y;)*2
}
```

Sometimes we want to handle only if and not else.

- Do something only when condition is true.
 - Don nothing for false case

```
if (condition )
    doSomething();
```

- This kind of task can't be performed using ternary operator

Short circuit && and ||

- Hacked solution
- && and || are short circuit operator

If statement vs ternary expression

- If is a statement.
 - You can include any javascript statement inside
 - Calling function
 - Creating array
 - Printing result
 - Calling multiple actions
- Ternary expression is an expression
 - You can do expressions
 - Write formula
 - Call method
 - You can do actions likes
 - Multiple job
 - Creating array

What do I mean by Short Circuit Operator?

condition1 && condition2

- If condition1 is false, what would be the value of overall expression?
 - False
 - Value of condition2 doesn't matter.
 - In such cases JavaScript doesn't bother to solve condition2
 - condition2 is solved only if condition1 is true

- consider below statement

```
hour<12 && console.log("Good Morning");
```

```
if(hour<12)
    console.log("Good Morning");
```

- Second condition will be evaluated only if first is true
- Message will be printed only if hour<12

What if I want to do something only if condition is false (and not true)

condition1 || condition2

- If condition1 is true, the overall condition is true.
 - Condition2 will not be evaluated
- Condition2 will be evaluated only if condition1 is false

```
function truthSeeker( value ) {
    value && console.log(value, "is true");
    value || console.log(value, "is false");
}
```

```
hour>= 12 || console.log('Good Morning')
```

- Print the message only when the condition is false