Comment

```
// komentar 1 line


/*
 komentar multiline
 komentar multiline
 komentar multiline
*/
```

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Variable

Variables are named values and can store any type of JavaScript value.

"Bob"   true   35
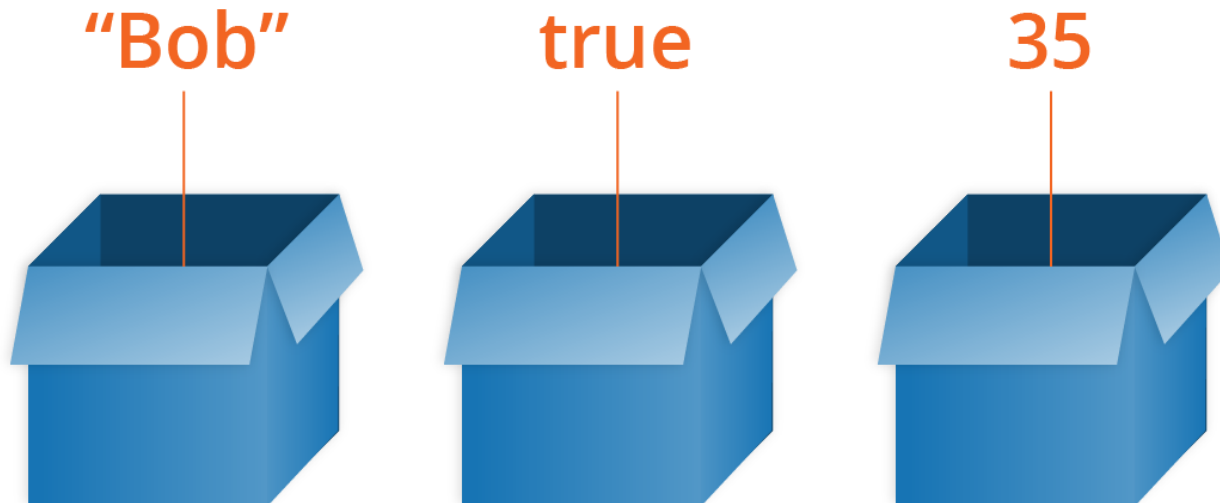
Variable

```javascript
var nama = 'Andi';
console.log(nama);

var usia = 22;
console.log(usia);

let jomblo = true;
console.log(jomblo);
```

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Naming Variables

Variable names rules:

- Start them with a letter, underscore (_), or dollar sign ($).
- After the first letter you can use numbers, letters, underscores (_), or dollar sign ($).
- Don't use any JavaScript's reserved keywords, such as var, let, this, etc.

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var *vs* let

```
var x = 21
var x = 22
console.log(x);
// output = 22
```

=============================

```
let y = 'hai'
let y = 'halo'
console.log(y);
// SyntaxError
```

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Prompt & Alert
<write on HTML!>

```
var kabar = prompt('Apa kabar?');
//muncul kotak dialog input


console.log(kabar);
//tampilkan input di console


alert(kabar);
//tampilkan input di alert window
```

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Data Type

```
let nama = 'Andi';
let usia = 22;
let jomblo = true;
let kerja;

console.log(typeof(nama));
console.log(typeof(usia));
console.log(typeof(jomblo));

console.log(typeof(kerja));
console.log(kerja);
```

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Primitive Data Type
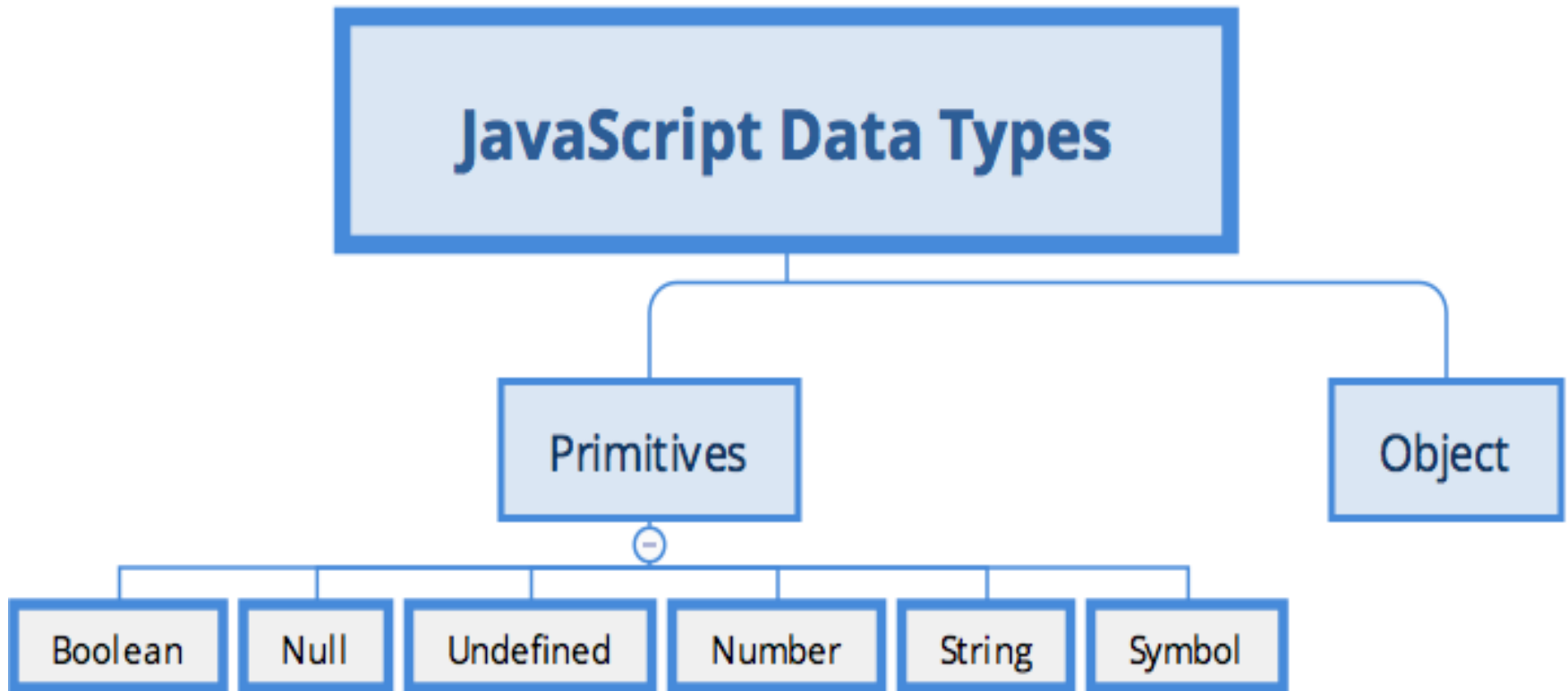
String : kumpulan char, text

Number : integer / float

Boolean : logic data type, true/false

Undefined : variabel tanpa value

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Data Type

JavaScript Data Types

- Primitives
  - Boolean
  - Null
  - Undefined
  - Number
  - String
  - Symbol
- Object

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Strings

```javascript
var x = 'Halo Dunia';

console.log(x.length);

console.log(x.indexOf('Dunia'));

console.log(x.substr(5, 3));

console.log(x.slice(5, 8));

console.log(x.split(' '));
//split spasi
```

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Strings

```
var x = 'halo';
var y = 'DUNIA';
var z = 12345;

console.log(x.toUpperCase());

console.log(y.toLowerCase());

console.log(x.replace('ha', 'mi'))
console.log(x.replace(/ha/g, 'mi'))

console.log(z.toString())
console.log(typeof(z.toString()))
```

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Convert Strings to Numbers

parseInt('123');
parseFloat('123');

parseInt('1234.5678');
parseFloat('1234.5678');

parseInt('Halo Dunia');
parseFloat('Halo Dunia');

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Convert Strings to Numbers

```javascript
let a = parseInt('123');
let b = parseFloat('123');
let c = parseInt('1234.5678');
let d = parseFloat('1234.5678');
let e = parseInt('Halo Dunia');
let f = parseFloat('Halo Dunia');

console.log(a)
console.log(b)
console.log(c)
console.log(d)
console.log(e)
console.log(f)
```

Convert Strings to Numbers

```javascript
let a = parseInt('123');
let b = parseFloat('123');
let c = parseInt('1234.5678');
let d = parseFloat('1234.5678');
let e = parseInt('Halo Dunia');
let f = parseFloat('Halo Dunia');

console.log(typeof(a))
console.log(typeof(b))
console.log(typeof(c))
console.log(typeof(d))
console.log(typeof(e))
console.log(typeof(f))
```

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Adding Strings & Numbers

```
let usia = 22;
let nama = 'Andi';

console.log(usia + usia);
console.log(nama + ' ' + nama);
console.log(nama + usia);

/*
  Type Coersion: saat dua variabel
  beda tipe digabungkan, akan
  diconvert ke String.
*/
```

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Numbers

```
var a = 3.14;
var b = 3;

var c = 123e5;        // 123 x 10^5
var d = 123e-5;       // 123 x 10^-5

var e = 999999999999999;    // 15x
var f = 9999999999999999;   // 16x

var g = 0.2 + 0.1;
var h = (0.2 * 10 + 0.1 * 10) / 10;
```

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Arithmetic Operators

Operator	Description
+	Addition
-	Subtraction
*	Multiplication
/	Division
%	Modulus
++	Increment
--	Decrement

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Arithmetic Operators

```
var usiaAndi = 40;
var usiaBudi = 20;

console.log(usiaAndi * usiaBudi);
console.log(usiaAndi / usiaBudi);
console.log(usiaAndi + usiaBudi);
console.log(usiaAndi - usiaBudi);
console.log(usiaAndi % usiaBudi);
```

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Arithmetic Operators

```
var usiaAndi = 40;
var usiaBudi = 20;

usiaAndi++     // usia Andi +1
usiaAndi++
console.log(usiaAndi);


usiaBudi--     // usia Budi -1
usiaBudi--
console.log(usiaBudi);
```

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Arithmetic Operators

```
var usiaAndi = 40;
var usiaBudi = 20;

usiaAndi+=2;
// usiaAndi = usiaAndi+2

usiaBudi*=2;
// usiaBudi = usiaBudi*2

console.log(usiaAndi);
console.log(usiaBudi);
```

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Basic Math Object

```
console.log(Math.PI);
console.log(Math.abs(-4.7));
console.log(Math.pow(8, 2));
console.log(Math.sqrt(64));
console.log(Math.cbrt(8));
```

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Round, Ceil & Floor

```
console.log(Math.round(4.7));

console.log(Math.round(4.4));

console.log(Math.floor(4.7));

console.log(Math.ceil(4.4));
```

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Random, Max & Min

```
console.log(Math.random());

console.log(Math.max(1,3,5));

console.log(Math.min(1,3,5));
```

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Basic Date Object

```
let a = new Date()

console.log(a.getFullYear())
console.log(a.getMonth())
console.log(a.getDate())
console.log(a.getDay())
console.log(a.getHours())
console.log(a.getMinutes())
console.log(a.getSeconds())
console.log(a.getMilliseconds())
```

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Basic Date Object

getFullYear()	Get year (yyyy)
getMonth()	Get month (0-11)
getDate()	Get day as a number (1-31)
getDay()	Get weekday number (0-6)
getHours()	Get hour (0-23)
getMinutes()	Get minutes (0-59)
getSeconds()	Get seconds (0-59)
getMilliseconds()	Get milliseconds (0-999)
getTime()	Get time (ms since Jan 1, 1970)

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