Web Tabanlı Uygulama

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Numerik Değerler Kullanımı

```
<!DOCTYPE html>
<html>
<body>

<p>Integers are considered accurate up to 15 digits.</p>

<button onclick="myFunction()">Try it</button>

<p id="demo"></p>

<script>
function myFunction() {
    var x = 999999999999999;
    var y = 9999999999999999;
    document.getElementById("demo").innerHTML = x + "<br>" + y;
}
</script>

</body>
</html>
```

Numerik Değerler Kullanımı Küçük Hatalar

```
<!DOCTYPE html>
<html>
<body>

<p>Floating point arithmetic is not always 100% accurate.</p>

<button onclick="myFunction()">Try it</button>

<p id="demo"></p>

<script>
function myFunction() {
   var x = 0.2 + 0.1;
   document.getElementById("demo").innerHTML = "0.2 + 0.1 = " + x;
}
</script>

</body>
</html>
```

*

Numerik Değerler Kullanımı

```
<!DOCTYPE html>
<html>
<body>

<p>Floating point arithmetic is not always 100% accurate.</p>
<p>But it helps to multiply and divide.</p>

<button onclick="myFunction()">Try it</button>

<p id="demo"></p>

<script>
function myFunction() {
   var x = (0.2*10 + 0.1*10) / 10;
   document.getElementById("demo").innerHTML = "0.2 + 0.1 = " + x;
}
</script>

</body>
</html>
```

*

Numerik Değerler Kullanımı Hex Sayılar

- <!DOCTYPE html>
- <html>
- <body>

- Numeric constants, preceded by ox, are interpreted as hexadecimal.

- <button onclick="myFunction()">Try it</button>

-

- <script>
- function myFunction() {
- document.getElementById("demo").innerHTML = "oxFF = " + oxFF;
- }
- </script>

- </body>
- </html>

*

Numerik Değerler Kullanımı

- <!DOCTYPE html>
- <html>
- <body>

- Numeric constants, preceded by ox, are interpreted as hexadecimal.

- <button onclick="myFunction()">Try it</button>

-

- <script>
- function myFunction() {
- document.getElementById("demo").innerHTML = "oxFF = " + oxFF;
- }
- </script>

- </body>
- </html>

Numerik Değerler Kullanımı-Sınırları Zorlama

```
<!DOCTYPE html>
<html>
<body>

<p>Infinity is returned if you calculate a number outside the largest possible number.</p>

<button onclick="myFunction()">Try it</button>

<p id="demo"></p>

<script>
function myFunction() {
  var myNumber = 2;
  var txt = "";
  while (myNumber != Infinity) {
    myNumber = myNumber * myNumber;
    txt = txt + myNumber + "<br>";
  }
  document.getElementById("demo").innerHTML = txt;
}
</script>

</body>
</html>
```

*

Sonsuzluk

```
<!DOCTYPE html>
<html>
<body>

<p>Division by zero also generates Infinity.</p>

<button onclick="myFunction()">Try it</button>

<p id="demo"></p>

<script>
function myFunction() {
    var x = 2/0;
    var y = -2/0;
    document.getElementById("demo").innerHTML = x + "<br>" + y;
}
</script>

</body>
</html>
```

Tip Dönüşümü

```
<!DOCTYPE html>
<html>
<body>

<p>Infinity is a Number.</p>

<button onclick="myFunction()">Try it</button>

<p id="demo"></p>

<script>
function myFunction() {
    document.getElementById("demo").innerHTML = typeof Infinity;
}
</script>

</body>
</html>
```

*

Veri Bozulması

- <!DOCTYPE html>
- <html>
- <body>
- A number divided by a non-numeric string becomes NaN (Not a Number):

-

- <script>
- document.getElementById("demo").innerHTML = 100 / "Apple";
- </script>

- </body>
- </html>

Numerik Kullanım

- <!DOCTYPE html>
- <html>
- <body>
- A number divided by a numeric string becomes a number:

-

- <script>
- document.getElementById("demo").innerHTML = 100 / "10";
- </script>

- </body>
- </html>

Numerik Değerler

- <!DOCTYPE html>
- <html>
- <body>

-

- <script>
- var x = 100 / "Apple";
- document.getElementById("demo").innerHTML = isNaN(x);
- </script>

- </body>
- </html>

Numerik Değerler

- <!DOCTYPE html>
- <html>
- <body>
- If you use NaN in a mathematical operation, the result will also be NaN:

-

- <script>
- var x = NaN;
- var y = 5;
- document.getElementById("demo").innerHTML = x + y;
- </script>

- </body>
- </html>

Veri Dönüşümü

- <!DOCTYPE html>
- <html>
- <body>

- The typeof NaN is:

-

- <script>
- document.getElementById("demo").innerHTML = typeof NaN;
- </script>

- </body>
- </html>

Numerik Değerler ve Obje

- <!DOCTYPE html>
- <html>
- <body>
-

- <script>
- var x = 123;
- var y = new Number(123);

- document.getElementById("demo").innerHTML = typeof x + "
" + typeof y;
- </script>

- </body>
- </html>

Doğru Değer Karşılaştırma

```
<!DOCTYPE html>
<html>
<body>

<p>Never create numbers as objects.</p>
<p>Numbers and objects cannot be safely compared.</p>

<p id="demo"></p>

<script>
var x = 500;            // x is a number
var y = new Number(500);  // y is an object
document.getElementById("demo").innerHTML = (x==y);
</script>

</body>
</html>
```

Obje ve Numerik Değer Karşılaştırma

- <!DOCTYPE html>
- <html>
- <body>

- Never create numbers as objects.
- JavaScript objects cannot be compared.

-

- <script>
- var x = new Number(500); // x is an object
- var y = new Number(500); // y is an object
- document.getElementById("demo").innerHTML = (x==y);
- </script>

- </body>
- </html>

Hazır Değerler

Property	Description
MAX_VALUE	Returns the largest number possible in JavaScript
MIN_VALUE	Returns the smallest number possible in JavaScript
NEGATIVE_INFINITY	Represents negative infinity (returned on overflow)
NaN	Represents a "Not-a-Number" value
POSITIVE_INFINITY	Represents infinity (returned on overflow)

Max Value

- <!DOCTYPE html>
- <html>
- <body>

-

- <script>
- document.getElementById("demo").innerHTML = Number.MAX_VALUE;
- </script>

- </body>
- </html>

Java Script'te En Çok Kullanılan Global Methodlar

Method	Description
Number()	Returns a number, converted from its argument.
parseFloat()	Parses its argument and returns a floating point number
parseInt()	Parses its argument and returns an integer

Java Script'te Kullanılan Nümerik Methodlar

Method	Description
toString()	Returns a number as a string
toExponential()	Returns a string, with a number rounded and written using exponential notation.
toFixed()	Returns a string, with a number rounded and written with a specified number of decimals.
toPrecision()	Returns a string, with a number written with a specified length
valueOf()	Returns a number as a number

Js ToString

- <!DOCTYPE html>
- <html>
- <body>

- The toString() method converts a number to a string.

-

- <script>
- var x = 123;
- document.getElementById("demo").innerHTML =
- x.toString() + "
" +
- (123).toString() + "
" +
- (100 + 23).toString();
- </script>

- </body>
- </html>

Js to Exponential

- <!DOCTYPE html>
- <html>
- <body>

- The toExponential() method returns a string, with the number rounded and written using exponential notation.

- An optional parameter defines the number of digits behind the decimal point.

-

- <script>
- var x = 9.656;
- document.getElementById("demo").innerHTML =
- x.toExponential() + "
" +
- x.toExponential(2) + "
" +
- x.toExponential(4) + "
" +
- x.toExponential(6);
- </script>

- </body>
- </html>

*

Js ToFixed

```
<!DOCTYPE html>
<html>
<body>

<p>The toFixed() method rounds a number to a given number of digits.</p>
<p>For working with money, toFixed(2) is perfect.</p>

<p id="demo"></p>

<script>
var x = 9.656;
document.getElementById("demo").innerHTML =
   x.toFixed(0) + "<br>" +
   x.toFixed(2) + "<br>" +
   x.toFixed(4) + "<br>" +
   x.toFixed(6);
</script>

</body>
</html>
```

*

Js Precision

```
<!DOCTYPE html>
<html>
<body>

<p>The toPrecision() method returns a string, with a number written with a specified length:</p>

<p id="demo"></p>

<script>
var x = 9.656;
document.getElementById("demo").innerHTML =
   x.toPrecision() + "<br>" +
   x.toPrecision(2) + "<br>" +
   x.toPrecision(4) + "<br>" +
   x.toPrecision(6);
</script>

</body>
</html>
```

Js Number

```
<!DOCTYPE html>
<html>
<body>

<p>The global JavaScript function Number() converts variables to numbers:</p>

<p id="demo"></p>

<script>
document.getElementById("demo").innerHTML =
   Number(true) + "<br>" +
   Number(false) + "<br>" +
   Number("  10") + "<br>" +
   Number("10  ") + "<br>" +
   Number("10 6");
</script>

</body>
</html>
```

*

Js ParseInt

```
<!DOCTYPE html>
<html>
<body>

<p>The global JavaScript function parseInt() converts strings to numbers:</p>

<p id="demo"></p>

<script>
document.getElementById("demo").innerHTML =
   parseInt("10") + "<br>" +
   parseInt("10.33") + "<br>" +
   parseInt("10 6") + "<br>" +
   parseInt("10 years") + "<br>" +
   parseInt("years 10");
</script>

</body>
</html>
```

Js ParseFloat

- <!DOCTYPE html>
- <html>
- <body>

- The global JavaScript function parseFloat() converts strings to numbers:

-

- <script>
- document.getElementById("demo").innerHTML =
- parseFloat("10") + "
" +
- parseFloat("10.33") + "
" +
- parseFloat("10 6") + "
" +
- parseFloat("10 years") + "
" +
- parseFloat("years 10");
- </script>

- </body>
- </html>

Js ValueOf

```
<!DOCTYPE html>
<html>
<body>
<p id="demo"></p>

<script>
var x = 123;

document.getElementById("demo").innerHTML =
   x.valueOf() + "<br>" +
   (123).valueOf() + "<br>" +
   (100 + 23).valueOf();
</script>

</body>
</html>
```

*

Js Math Kütüphanesi Random

- <!DOCTYPE html>
- <html>
- <body>

- Math.random() returns a random number betwween 0 and 1.

- <button onclick="myFunction()">Try it</button>

-

- <script>
- function myFunction() {
- document.getElementById("demo").innerHTML = Math.random();
- }
- </script>

- </body>
- </html>

Js Min / Max Kullanımı

```
<!DOCTYPE html>
<html>
<body>

<p>Math.min() returns the lowest value.</p>

<button onclick="myFunction()">Try it</button>

<p id="demo"></p>

<script>
function myFunction() {
  document.getElementById("demo").innerHTML =
  Math.min(0, 150, 30, 20, -8);
}
</script>

</body>
</html>
```

*

Js Random Fonksiyon ile Kullanımı

```
<!DOCTYPE html>
<html>
<body>

<p>
In HTML, all global variables will become a window variables.
</p>

<p id="demo"></p>

<script>
myFunction();
document.getElementById("demo").innerHTML =
"I can display " + window.carName;

function myFunction() {
    carName = "Volvo";
}
</script>

</body>
</html>
```

*

Js Round

```
<!DOCTYPE html>
<html>
<body>

<p>Math.round() rounds a number to its nearest integer.</p>

<button onclick="myFunction()">Try it</button>

<p id="demo"></p>

<script>
function myFunction() {
    document.getElementById("demo").innerHTML = Math.round(5.7);
}
</script>

</body>
</html>
```

*

Js Ceil

```
<!DOCTYPE html>
<html>
<body>

<p>Math.ceil() rounds a number <strong>up</strong> to its nearest integer.</p>

<button onclick="myFunction()">Try it</button>

<p id="demo"></p>

<script>
function myFunction() {
    document.getElementById("demo").innerHTML = Math.ceil(4.4);
}
</script>

</body>
</html>
```

*

Js Floor

```
<!DOCTYPE html>
<html>
<body>

<p>Math.floor() rounds a number <strong>down</strong> to its nearest integer.</p>

<button onclick="myFunction()">Try it</button>

<p id="demo"></p>

<script>
function myFunction() {
    document.getElementById("demo").innerHTML = Math.floor(4.7);
}
</script>

</body>
</html>
```

Js Random & Ceil Birlikte Kullanım

```
<!DOCTYPE html>
<html>
<body>
<p>Math.floor() combined with Math.random() can return random integers.</p>
<button onclick="myFunction()">Try it</button>
<p id="demo"></p>
<script>
function myFunction() {
    document.getElementById("demo").innerHTML =
    Math.floor(Math.random() * 11);
}
</script>
</body>
</html>
```

Js ve Hazır Math

```
<!DOCTYPE html>
<html>
<body>

<p>Math constants are E, PI, SQR2, SQR1_2, LN2, LN10, LOG2E, LOG10E</p>

<button onclick="myFunction()">Try it</button>

<p id="demo"></p>

<script>
function myFunction() {
   document.getElementById("demo").innerHTML =
   Math.E + "<br>" +
   Math.PI + "<br>" +
   Math.SQRT2 + "<br>" +
   Math.SQRT1_2 + "<br>" +
   Math.LN2 + "<br>" +
   Math.LN10 + "<br>" +
   Math.LOG2E + "<br>" +
   Math.LOG10E + "<br>";
}
</script>

</body>
</html>
```

Js Hazır Methodlar

Method	Description
abs(x)	Returns the absolute value of x
acos(x)	Returns the arccosine of x, in radians
asin(x)	Returns the arcsine of x, in radians
atan(x)	Returns the arctangent of x as a numeric value between -PI/2 and PI/2 radians
atan2(y,x)	Returns the arctangent of the quotient of its arguments
ceil(x)	Returns x, rounded upwards to the nearest integer
cos(x)	Returns the cosine of x (x is in radians)
exp(x)	Returns the value of E^x
floor(x)	Returns x, rounded downwards to the nearest integer
log(x)	Returns the natural logarithm (base E) of x
max(x,y,z,...,n)	Returns the number with the highest value
min(x,y,z,...,n)	Returns the number with the lowest value
pow(x,y)	Returns the value of x to the power of y
random()	Returns a random number between 0 and 1
round(x)	Rounds x to the nearest integer
sin(x)	Returns the sine of x (x is in radians)
sqrt(x)	Returns the square root of x
tan(x)	Returns the tangent of an angle

İleriwep Programlama
Dersinde İşlenecek Js ile İlgili Kalan Konular

- JS Forms (API), JS HTML DOM
- JS Browser BOM, JS Libraries, Js JQuery
  JS Hoisting / JS Strict Mode/JS Style Guide/
- JS Best Practices/ JS Mistakes/ JS Performance
- JS Reserved Words / JS JSON

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