

Web dasturlashga kirish

8-Ma'ruza: JavaScript funksiyalari va obyektlari

- ▶ Funksiyalar (functions)
- ▶ Obyektlar (objects)
- ▶ Operatorlar

Funksiyalar

- Ma'lum bir vazifani bajaruvchi, dasturning istalgan qismidan murojaat qilish mumkin bo'lgan nomlangan dastur qismi funksiya deyiladi.

Funksiya qachonki unga murojaat qilinsa yoki uni chaqirilsa shunda funksiya o'z vazifasini bajaradi.

JavaScriptda funksiya function kalit so'zi orqali e'lon qilinadi.

```
function funksiya_nomi(parameter-1, parameter-2, ..... parameter-n) {  
    bajarishilishi lozim amallar;  
}
```

Funksiyalarga murojaat (call)

Funksiyaga murojaat qilishda funksiya nomi va qavs ichida parametrlariga mos qiymatlar keltiriladi.

- Funksiyalarni biror elementning hodisasi yordamida chaqirish mumkin

M-n: `<input type="button" onclick="myfunction()"/>`

- To'g'ridan to'g'ri JavaScript kodni o'zida chaqirish mumkin:

```
<script>
var x = myFunction(4, 3);
document.getElementById("demo").innerHTML = x;
function myFunction(a, b) {
    return a * b;
}
</script>
```

return

return kalit so'zi orqali funksiya qiymat qaytaradigan funksiyaga aylanadi, va **return** dan keyin yozilgan ifoda yoki qiymat funksiyaning qaytaradigan qiymati hisoblanadi. Shuningdek, **return** funksiya o'z vazifasini tugallab bo'lganligini bildiradi, ya'ni funksiyaning ichidagi ifodalardan so'ng **return** ishlatiladi.

```
<script>
var x = myFunction(12, 28);
document.getElementById("demo").innerHTML = x;
function myFunction(a, b) {
    return a * b;
}
</script>
```

Obyekt (object)

Object



Properties

car.name = Fiat

car.model = 500

car.weight = 850kg

car.color = white

Methods

car.start()

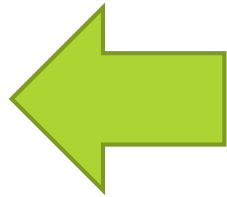
car.drive()

car.brake()

car.stop()

Obyekt

```
var person = {  
  firstName:"John",  
  lastName:"Doe",  
  age:50,  
  eyeColor:"blue"  
};
```



```
var car = {  
  name : "Gelandewagen",  
  color : "white",  
  weight : 1500  
};
```

```
|  
var car = {type:"Fiat", model:"500", color:"white"};
```

this

this kalit so'zi obyekt ichidagi xususiyatlarga aynan shu obyekt ichida murojaat qilish uchun ishlatiladi. *this.properties_name* – aynan joriy obyekt xususiyatini bildiradi

```
var person = {  
  firstName: "John",  
  lastName : "Doe",  
  id       : 5566,  
  fullName : function() {  
    return this.firstName + " " + this.lastName;  
  }  
};
```


Math obykti metodlari

Metod	Tavsif
abs(x)	x ning absolyut qiymati
acos(x)	x ning arkkosinusi (radian)
asin(x)	x ning arksinusi (radian)
atan(x)	x ning arktangensi (radian)
ceil(x)	x haqiqiy sonni o'zidan katta yaqin songa yaxlitlash
cos(x)	x ning kosinusi (radian)
exp(x)	eksponenta
floor(x)	x haqiqiy sonni o'zidan kichik yaqin songa yaxlitlash
log(x)	x ning natural logarifmi
max(x, y, z, ..., n)	x, y, z, ..., n sonlarning eng kattasi
min(x, y, z, ..., n)	x, y, z, ..., n sonlarning eng kichigi
pow(x, y)	x ning y-darajasi
random()	0 va 1 oralig'idagi tasodifiy sonni hosil qilish
round(x)	x sonni yaxlitlash
sin(x)	x ning sinusi (radian)
sqrt(x)	x sonning kvadrat ildizi
tan(x)	x ning tangensi (radian)

If.. else

If(shart){

Shart rost bo'lganda bajarilishi lozim bo'lgan amallar

} else if(boshqa_shart){

boshqa shart rost bo'lganda bajarilishi lozim bo'lgan amallar

} else{

yuqoridagi har ikkala shart yolg'on bo'lganda bajarilishi lozim bo'lgan amallar

}

switch

```
switch(ifoda) {  
    case 1:  
        code block  
        break;  
    case 2:  
        code block  
        break;  
    case n:  
        code block  
        break;  
    default:  
        code block  
}
```

```
<script>  
var day;  
switch (new Date().getDay()) {  
    case 0: day = "Sunday"; break;  
    case 1: day = "Monday"; break;  
    case 2: day = "Tuesday"; break;  
    case 3: day = "Wednesday"; break;  
    case 4: day = "Thursday"; break;  
    case 5: day = "Friday"; break;  
    case 6: day = "Saturday";  
}  
document.getElementById("demo").innerHTML = "Today is " + day;  
</script>
```

for loop. (1)

```
<script>
var text = "";
var i;
for (i = 0; i < 5; i++) {
    text += "The number is " + i + "<br>";
}
document.getElementById("demo").innerHTML = text;
</script>
```

for loop. (2)

```
<script>
var cars = ["BMW", "Volvo", "Saab", "Ford"];
var i = 2;
var len = cars.length;
var text = "";

for (; i < len; i++) {
    text += cars[i] + "<br>";
}

document.getElementById("demo").innerHTML = text;
</script>
```

for loop. (3)

```
<script>
var cars = ["BMW", "Volvo", "Saab", "Ford"];

var i = 0;
var len = cars.length;
var text = "";

for (; i < len; ) {
    text += cars[i] + "<br>";
    i++;
}
document.getElementById("demo").innerHTML = text;
</script>
```

for/in loop

for/in obyektlar uchun takrorlanish operatori sifatida qo'llaniladi

```
<script>
var txt = "";
var person = {fname:"John", lname:"Doe", age:25};
var x;
for (x in person) {
    txt += person[x] + " ";
}
document.getElementById("demo").innerHTML = txt;
</script>
|
```

for/of loop

```
<script>
let language = "JavaScript";
let text = "";

for (let x of language) {
  text += x + "<br>";
}

document.getElementById("demo").innerHTML = text;
```


while loop

```
<script>
var text = "";
var i = 0;
while (i < 10) {
    text += "<br>The number is " + i;
    i++;
}
document.getElementById("demo").innerHTML = text;
</script>
```

```
while (shart) {
    shart rost bo'lgan holat
    uchun amallar
}
```

do-while loop

```
do {  
    text += "The number is " + i;  
    i++;  
}  
while (i < 10);
```

break

```
for (i = 0; i < 10; i++) {  
    if (i === 3) { break; }  
    text += "The number is " + i + "<br>";  
}
```

continue

```
for (i = 0; i < 10; i++) {  
    if (i === 3) { continue; }  
    text += "The number is " + i + "<br>";  
}
```