

# Web dasturlashga kirish

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## 6-Ma'ruza: CSS asoslari. Effektlar, transformatsiya, animatsiya

- ▶ CSS3 da effektlar
- ▶ Transformatsiya tushunchasi
- ▶ Animatsion xususiyatlar

## CSS da effektlar

Yozuv effektlari - Text effects(text-overflow, word-wrap, word-break)

Soya effektlari - Shadow effects (text-shadow, box-shadow)

Rang effektlari - Color effects(linear-gradients, radial-gradients)

# Yozuv effektlari

text-overflow: overflow xususiyati bilan birgalikda ishlatiladi. Mazkur xususiyatlar yozuvning tashqi elementi maydoni o'z chegarasidan tashqariga chiqib ketish yoki ketmasligini ta'minlovchi xususiyatlardir. (*nowrap, hidden, clip, ellipses*)

```
p.test1 {  
  white-space: nowrap;  
  width: 200px;  
  border: 1px solid #000000;  
  {overflow: hidden;  
  text-overflow: clip;  
}  
p.test2 {  
  white-space: nowrap;  
  width: 200px;  
  border: 1px solid #000000;  
  {overflow: hidden;  
  text-overflow: ellipsis;  
}
```

Ikki xil ko'rinishdagi yozuvning ko'rinish effekti

text-overflow: clip:

Bu biroz uzunroq yozuv bo'lib,

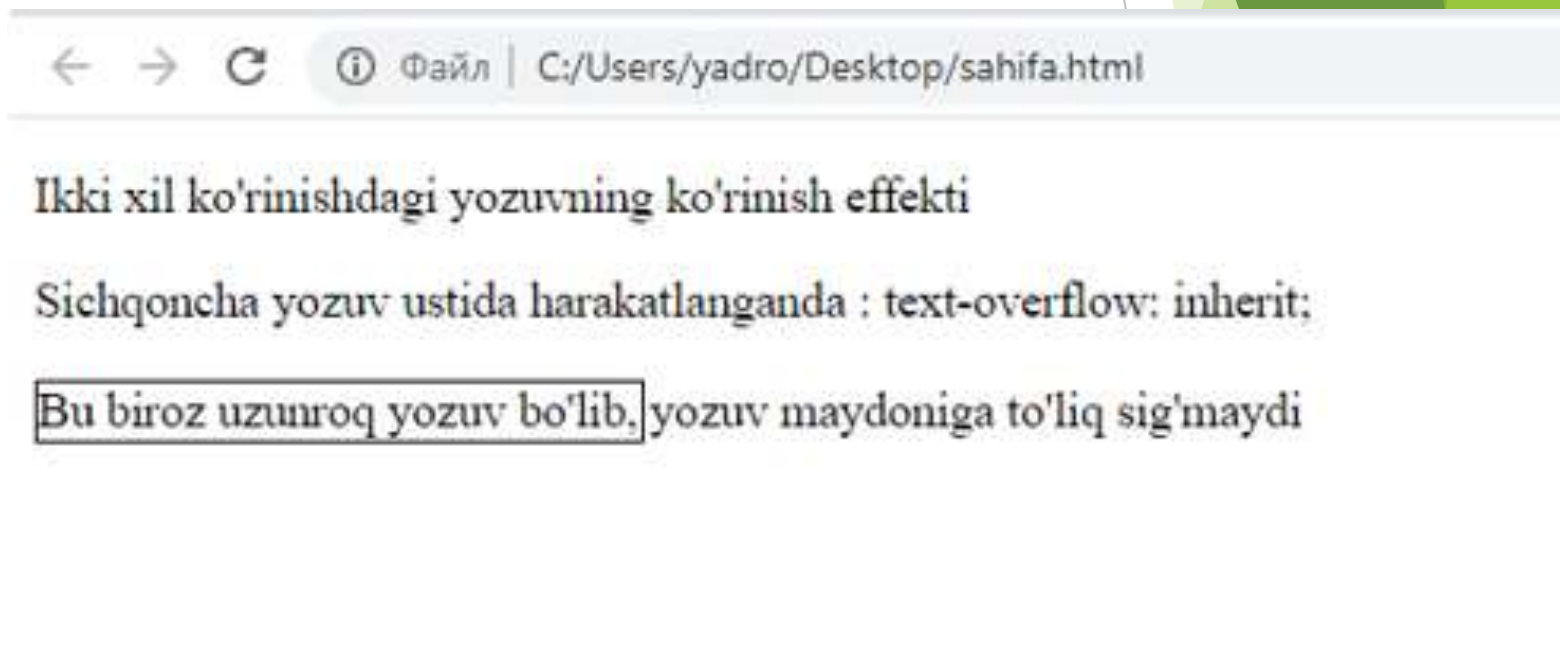
text-overflow: ellipsis:

Bu biroz uzunroq yozuv bo'l...

# Yozuv effektlari

text-overflow: inherit va overflow: visible bo'lgan holda yozuv o'z chegara maydonidan chetga chiqib ketadi va to'liq ko'rinishda ko'rinadi. Quyidagi misolda hover xususiyati ya'ni sichqoncha yozuv ustida harakatlanganda yozuvning text-overflow xususiyati inheritga o'zgaradi va yozuv to'liq ko'rinishda ko'rinadi.


```
p.test2 {  
  white-space: nowrap;  
  width: 200px;  
  border: 1px solid #000000;  
  {overflow: hidden;  
  text-overflow: ellipsis;  
}  
p.test2:hover {  
  overflow: visible;  
  {text-overflow: inherit;  
  cursor: pointer;  
}
```



# Yozuv effektlari

word-wrap: element chegarasidan oshib ketadigan uzun so'zlarni keying qatorga bo'g'in ko'cherish yo'li orqali , yoki butunligicha yoki qismga bo'lib ko'chirilishini ta'minlovchi xususiyatdir.

```
<!DOCTYPE html>
<html>
<head>
<style>
p{
  width: 100px;
  border: 1px solid #000000;
  word-wrap: break-word;
}
</style>
</head>
<body>
<p> Yozuvlar juda ko'p bo'lganligi sababli
uzun so'zlarni qismga bo'lib keyingi qatorga
tushirildi!!!</p>
</body>
</html>
```



```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<style>
```

```
p.test1 {
```

```
width: 140px;
```

```
border: 1px solid #000000;
```

```
word-break: keep-all;
```

```
}
```

Sig'magan  
so'zlar  
butunligicha  
yangi qatorga  
ko'chiriladi

```
p.test2 {
```

```
width: 140px;
```

```
border: 1px solid #000000;
```

```
word-break: break-all;
```

```
}
```

So'zlar  
harflarga  
bo'linib pastki  
qatorga  
ko'chirladi

```
</style>
```

```
</head>
```

```
<body>
```

```
<p class="test1">Sig'magan so'zlarni harflarini buzmasdan pastki qatorga ko'chirish</p>
```

```
<p class="test2">Sig'magan so'zlarni harflarga ajratib pastki qatorga ko'chirish</p>
```

```
</body>
```

# SOYA effektlari

## *text-shadow*

*text-shadow*: yozuvga beriladigan soya effekti xususiyati.

*Qiymatlari gorizontaal va vertikal soha tushirilishiga qarab beriladi.*

*Masalan: text-shadow: 2px, 4px; - 2px gorizontaal va 4px vertikal holda soya hosil qiladi.*

sahifa.html

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
  text-shadow: 2px 4px;
}
</style>
</head>
<body>
<h1>Text-shadow effect!</h1>
</body>
</html>
```



Файл | C:/Users/yadro/Desktop/sahifa.html

**Text-shadow effect!**



# SOYA effektlari

`text-shadow: 4px 5px red;` – 4px gorizontal va 5px vertikal holda qizil rangli soya hosil qiladi.

Agar soyaning gorizontal va vertical siljishi qiymatlaridan keyin yana bitta qiymat kiritilsa soyada blur(bo'yashgan) effect hosil bo'ladi:

`text-shadow: 2px 3px 5px red;`

2px – gorizontal

3px – vertical

5px – blur effect

red – qizil rangli soya

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**Text-shadow effect!**

← → ↻ ⓘ Файл | C:/Users/yadro/Desktop/sahifa.html

**Text-shadow effect!**

# SOYA effektlari

## Ko'p tomonlama soya effekti

sahifa.html

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
  text-shadow: 0 0 3px #FF0000, 0 0 5px #0000FF;
}
</style>
</head>
<body>
<h1>Text-shadow effect!</h1>
</body>
</html>
```

← → ↻ ⓘ Файл | C:/Users/yadro/Desktop

**Text-shadow effect!**

# SOYA effektlari

## Ko'p tomonlama soya effekti

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
  color: white;
  text-shadow: 1px 1px 2px black, 0 0 25px blue, 0 0 5px darkblue;
}
</style>
</head>
<body>
<h1>Text-shadow effect!</h1>
</body>
</html>
```

**Text-shadow effect!**

# SOYA effektlari

## box-shadow

*box-shadow: elementning tashqi chegarasiga beriladigan soya effektidir.*

```
div {  
  width: 300px;  
  height: 100px;  
  padding: 15px;  
  background-color: yellow;  
  box-shadow: 10px 10px;  
}
```

Oddiy soya

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div orqali hosil qilingan blok elementiga  
berilgan soya

```
div {  
  width: 300px;  
  height: 100px;  
  padding: 15px;  
  background-color: yellow;  
  box-shadow: 10px 10px 5px grey;  
}
```

Blur effektli  
soya

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div orqali hosil qilingan blok elementiga  
berilgan blur effektli soya

# SOYA effektlari

## box-shadow

*Elementning gorizontal va vertical soya qiymatlarini 0 qilish orqali hamma tomondan bir xil tushadigan soya hosil qilish mumkin,*

```
sahifa.html x
<!DOCTYPE html>
<html>
<head>
<style>
div {
  width: 300px;
  height: 100px;
  padding: 15px;
  background-color: white;
  box-shadow: 0 0 10px grey;
}
</style>
</head>
<body>
<div>Blur effektli, hamma tomondan bir xil
tushirilgan soya effekti</div>
</body>
</html>
```

← → ↻ ⓘ Файл | C:/Users/yadro/Desktop/sahifa.html

Blur effektli, hamma tomondan bir xil  
tushirilgan soya effekti

# Rang effektlari

## Gradient

*Gradient bu bir necha xil ranglarni qo'shib yangicha rang effektini hosil qilishdir. CSS3da asosiy ikki xil turdagi gradient mavjud:*

*linear-gradient: - bir necha xil ranglarni yonma-yon chiziqli aralashtirish*

*radial-gradient: - bir necha xil ranglarni aylanasiimon aralashtirish*

```
background: linear-gradient(red, yellow);
```



Ushbu misolda elementning orqa fon rangi chiziqli gradient orqali sariq va qizil ranglardan aralashtirib effect hosil qilingan

*Chiziqli gradient orqali ranglarni o'ngdan chapga yo'naltirgan holda aralashtiruvchi effekt*

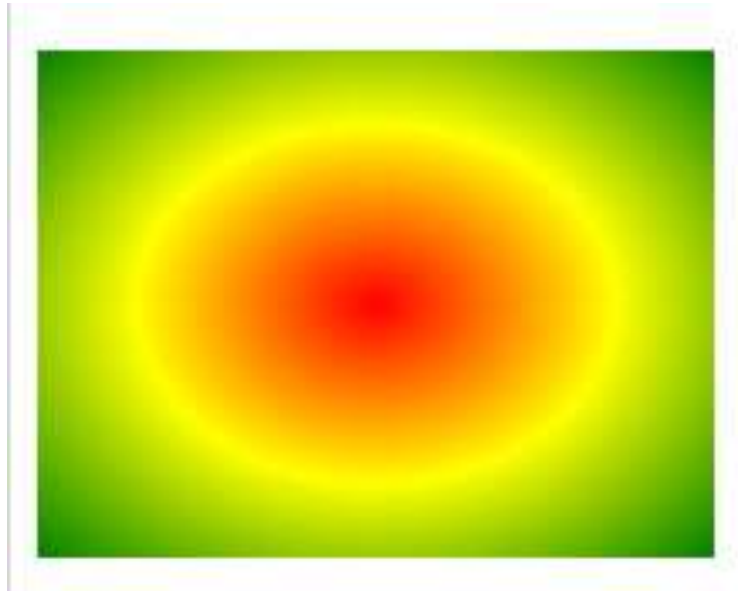
```
div{  
  background: linear-gradient(to right, red , yellow);  
  height: 200px;  
  width: 500px;  
}
```



# Rang effektlari

*radial-radient*

```
div {  
  height: 150px;  
  width: 200px;  
  background: radial-gradient(red, yellow, green);  
}
```





# transformatsiya

Transformatsiya - elementning ayni holatdagi shaklini o'zgartirishdir. Transformatsiya xususiyatida bir nechta asosiy funksiyalar ishlatiladi:

`transform: scale(50%)`. Element hajmini o'zgartiruvchi funksiya

`transform: scaleX(50%)`. Element hajmini X o'qi bo'yicha o'zgartirish

`transform: scaleY(50%)`. Element hajmini Y o'qi bo'yicha o'zgartirish

`transform: rotate(5deg)`. Elementni biror gradusga burish, qiyshiq holga keltirish.


`transform: rotateX(50deg)`. X o'qi bo'yicha biror gradusga burish

`transform: rotateY(90deg)`. Y o'qi bo'yicha biror gradusga burish

# transformatsiya

*transform: rotate(4deg);* elementni 4 gradusga burish.

```
sahifa.html x
<!DOCTYPE html>
<html>
<head>
<style>
div {
  width: 300px;
  height: 100px;
  padding: 15px;
  background-color: white;
  box-shadow: 0 0 10px grey;
  transform: rotate(4deg);
}
</style>
</head>
<body>
<div>4 gradusga egilgan blok elementi</div>
</body>
</html>
```



4 gradusga egilgan blok elementi

# transformatsiya

*transform: scale(1.5); element hajmini 1,5 baravar kattalashtirish*

```
img {  
  width: 300px;  
  height: 200px;  
  padding: 15px;  
  background-color: white;  
  box-shadow: 0 0 10px grey;  
  transform: scale(1.5);  
}
```

# transition

*Transition - element o'zgarish jarayonini biror vaqtga kechiktirish, yoki ma'lum vaqt bo'yicha o'zgartirishni amalga oshiradi.*

```
img {  
  width: 300px;  
  height: 200px;  
  padding: 15px;  
  background-color: white;  
  box-shadow: 0 0 10px grey;  
}  
img:hover {  
  transform: rotate(5deg);  
  transition: 2s;  
}
```

Mazkur misolda img elementi uchun CSS stil yaratilgan. Hover ya'ni rasm ustida sichqoncha harakatlanganda rasm 5 gradusga burilishi 2s ichida amalga oshadi. Ya'ni 2 gradusga burilish vaqti 2s ichida bajariladi!!!

# CSS da animatsiya

Animatsiya bu biror elementning harakati, holati, dizayni, stillarining vaqtga mos holda o'zgarish jarayonidir. Ko'p hollarda Web sahifalarda animatsiya asosan JavaScript tili yoki Flash muhiti yordamida amalga oshiriladi. Biroq CSS3 ning o'zida ham murakkab bo'lmagan turli xildagi animatsion jarayonlarni hosil qilish mumkin. CSS3 yordamida animatsiya hosil qilishda eng muhim xususiyat va funksiyalar quyidagilardir.

**@keyframes** - vaqt ichida o'zgarishni ta'minlovchi qo'shimcha element (Standart holatda ishlatiladi)

**@-webkit-keyframes** - vazifasi @keyframes bilan bir xil (Chrome, Opera, Safari brauzerlari qo'llab quvvatlaydi)

# CSS da animatsiya

**@keyframes** ga tegishli bo'lgan muhim xususiyatlar:

`animation-name: example;` - @keyframes elementining nomi

`animation-duration: 4s;` - animatsion jarayon vaqti

`animation-delay: 2s;` animatsiya boshlanishini biror vaqtga kechiktirish

`animation-iteration-count: 4;` animatsiyaning necha bora takrorlanish soni

`animation-direction: reverse;` animatsiya yo'nalishini o'zgartirish

`from:` animatsiya boshlanishidan avvalgi dastlabki holat;

`to:` animatsiya dastlabki holatidan keying holatga o'tishi;



# CSS da animatsiya

Quyidagi misolda o'lchami 100x100px bo'lgan blokning dastlabki rangi qizil, ushbu rang 4s ichida sariq rangga o'zgaradi. - (webkit kalit so'zi bilan boshlangan qismlar animatsiyaning Chrome, Safari, Opera brauzerlarida ochilishini ta'minlaydi)

```
div {  
  width: 100px;  
  height: 100px;  
  background-color: red;  
  -webkit-animation-name: example; /* Chrome, Safari, Opera */  
  -webkit-animation-duration: 4s; /* Chrome, Safari, Opera */  
  animation-name: example;  
  animation-duration: 4s;  
}  
/* Chrome, Safari, Opera */  
@-webkit-keyframes example {  
  from {background-color: red;}  
  to {background-color: yellow;}  
}  
/* Standard ko'rinishi */  
@keyframes example {  
  from {background-color: red;}  
  to {background-color: yellow;}  
}
```

# CSS da animatsiya

```
div {  
  width: 100px;  
  height: 100px;  
  background-color: red;  
  position: relative;  
  animation-name: example;  
  animation-duration: 4s;  
  animation-iteration-count: 3;  
}  
  
@keyframes example {  
  0%   {background-color:red; left:0px; top:0px;}  
  25%  {background-color:yellow; left:200px; top:0px;}  
  50%  {background-color:blue; left:200px; top:200px;}  
  75%  {background-color:green; left:0px; top:200px;}  
  100% {background-color:red; left:0px; top:0px;}  
}
```



Ushbu namunada div blok elementi example nomi animatsiya yordamida to'g'ri to'rtburchak maydoni bo'ylab 4s ichida harakatlanishi va mazkur jarayon 3 marta takrorlanishi keltirilgan.



E'tiboringiz uchun tashakkur!!!