

“Postoji bar 12 različitih načina da se implementira nešto!  
Koji je od njih najbolji?”

## Jednostavnost prije svega

Uvijek birajte najprostiji način.

Još savjetaza vas:

- **Razdvajanje koncepata** : HTML treba da definiše sadržaj a NE stil, CSS NE treba da se bavi sadržajem
- **Deskriptivni HTML tagovi**: Napravite HTML kod čitljivijim npr.koristite `<header>` umjesto `<div>` kada je pogodno
- **Smanjite ponavljanje**: Pokušajte grupisanje stilova i descendant selektore

## Another rendering mode: `position`

### Pomjeranje pomoću `position`

**Positioned layout** dopušta da definišite precizno gdje će elementi biti na stranici ([mdn](#)).

Koraci za korišćenje `positioned layout`-a:

1. Definišemo metod za **`position`** :  
`Static, fixed, absolute, relative`
2. Definišemo **`offsets`**: `top, left, bottom i right`
3. (Opcionalno) Definišemo **`z-index`** za preklapajuće slojeve (overlapping layers) ([mdn](#))

## Pomjeranje pomoću position

Zadavanje pozicije elementa postavljanjem **top**, **left**, **bottom** i/ili **right** offset-a.

Značenje offset vrijednosti zavisi od referentne tačke postavljene sa **position**:

- **static**: nema referentne tačke; statički blokovi se ne mogu pomjerati (*ovo je default style za svaki element*)
- **fixed**: fiksirana pozicija unutar viewport-a
- **absolute**: fiksirana pozicija unutar "containing element"
- **relative**: offset od njegove normalne statičke pozicije

## position: static

(ništa se ne dešava!)

- static je default vrijednost za position
- Ako koristite top / left / bottom / right a ne postavite nestatičku position, ništa se ne dešava

```
<body>
<h1>Puppy</h1>
<p>A puppy is a juvenile dog. Some puppies
<h2>Development</h2>
<p>At first, puppies spend the large major
<div id="box1"></div>
</body>
```

```
#box1 {
height: 100px;
width: 100px;
background-color: red;

top: 0;
left: 0;
}
```

### Puppy

A puppy is a juvenile dog. Some puppies can weigh 1–3 lb up to 15–23 lb (6.8–10.4 kg). All healthy puppies grow quite change as the puppy grows older, as is commonly seen in vernacular English, puppy refers specifically to dogs, while such as seals, giraffes, guinea pigs, or even rats.

### Development

At first, puppies spend the large majority of their time sleep pile together into a heap, and become distressed if separated by even a short distance.

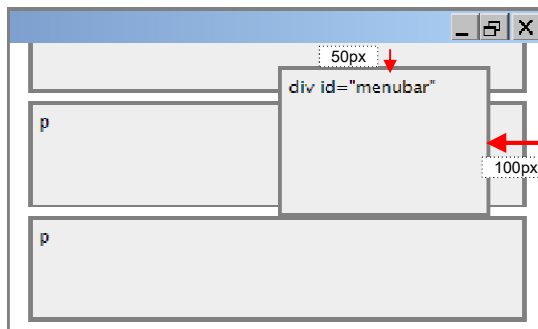


(CodePen)

## position: fixed

```
#menubar {
  position: fixed;
  top: 50px;
  right: 100px;
}
```

- Za **fixed positioning**, offset je rastojanje relativno u odnosu na viewport.
- Element se ne pomjera kada se skroluje.
- Element se **uklanja iz normalnog toka (normal document flow)** i pozicionira se na sopstveni sloj



Često se koristi za UIs; control bars that shouldn't go away

## position: fixed

```
#box1 {
  height: 50px;
  background-color:
    rgba(0, 0, 0, 0.5);
  position: fixed;
  top: 50%;
  left: 0;
  right: 0;
}
```

(CodePen)

vomacular English, puppy refers specifically to dogs, while pup may often be used for other mammals such as seals, giraffes, guinea pigs, or even rats.

### Development

At first, puppies spend the large majority of their time sleeping and the rest feeding. They instinctively pile together into a heap, and become distressed if separated from physical contact with their littermates, by even a short distance.

Puppies are born with a fully functional sense of smell but can't open their eyes. During their first two weeks, a puppy's senses all develop rapidly. During this stage the nose is the primary sense organ used by puppies to find their mother's teats, and to locate their littermates, if they become separated by a short distance. Puppies open their eyes about nine to eleven days following birth. At first, their retinas are poorly developed and their vision is poor. Puppies are not able to see as well as adult dogs. In addition, puppies' ears remain sealed until about thirteen to seventeen days after birth, after which they respond more actively to sounds. Between two and four weeks old, puppies usually begin to growl, bite, wag their tails, and bark.

Puppies develop very quickly during their first three months, particularly after their eyes and ears open and they are no longer completely dependent on their mother. Their coordination and strength improve, they spar with their littermates, and begin to explore the world outside the nest. They play wrestling, chase, dominance, and tug-of-war games.

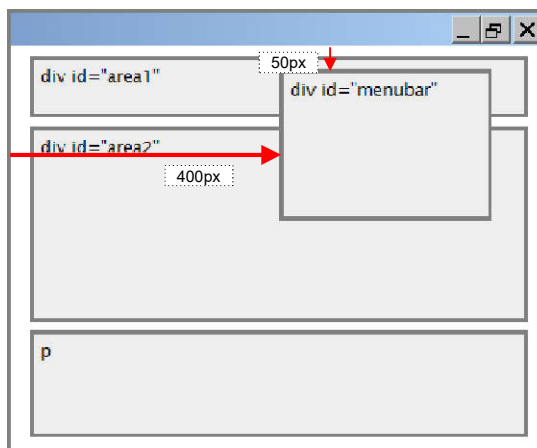
### Development

Puppies are highly social animals and spend most of their waking hours interacting with either their mother or littermates. When puppies are socialized with humans, especially between the ages of eleven and twelve weeks, they

## position: absolute

```
#menubar {
  position: absolute;
  left: 400px;
  top: 50px;
}
```

- Za **absolute positioning**, offset je rastojanje od "containing element", koji je po default-u html element.
- Element se uklanja iz normalnog toka i pozicionira se na sopstvenom sloju

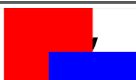


## position: absolute

```
#box1 {
  height: 100px;
  width: 100px;
  background-color: red;
}

#box2 {
  height: 100px;
  width: 100px;
  background-color: blue;
  position: absolute;
  top: 50px;
  left: 50px;
}
```

(CodePen)



can weigh 23 lb (6.8–10.4 kg). All healthy puppies grow quickly after birth. A puppy's coat color changes as the puppy grows older, as is commonly seen in breeds such as the Yorkshire Terrier. In vernacular English, puppy refers specifically to dogs, while pup may often be used for other mammals such as seals, giraffes, guinea pigs, or even rats.

### Development

At first, puppies spend the large majority of their time sleeping and the rest feeding. They instinctively pile together into a heap, and become distressed if separated from physical contact with their littermates, by even a short distance.

## position: relative

Za `position: relative;` element se postavlja gdje bi se normalno prikazao na stranici, ali pomjeren za vrijednost `top` / `left` / `bottom` / `right` values.

```
#box2 {
  height: 100px;
  width: 100px;
  background-color: blue;

  position: relative;
  top: 50px;
  left: 50px;
}
```

[\(CodePen\)](#)

### Puppy

A puppy is a juvenile dog. Some puppies can weigh 1–3 lb (0.45–1.36 kg), while larger ones can weigh up to 15–23 lb (6.8–10.4 kg). All healthy puppies grow quickly after birth. A puppy's coat color may change as the puppy grows older, as is commonly seen in breeds such as the Yorkshire Terrier. In vernacular English, puppy refers specifically to dogs, while pup may often be used for other mammals such as seals, giraffes, guinea pigs, or even rats.

#### Development

At first, puppies spend the large majority of their time sleeping and the rest feeding. They instinctively pile together into a heap, and become distressed if separated from physical contact with their littermates, by even a short distance.



## Relative absolute positioning

Pogledajmo opet definiciju apsolutnog pozicioniranja:

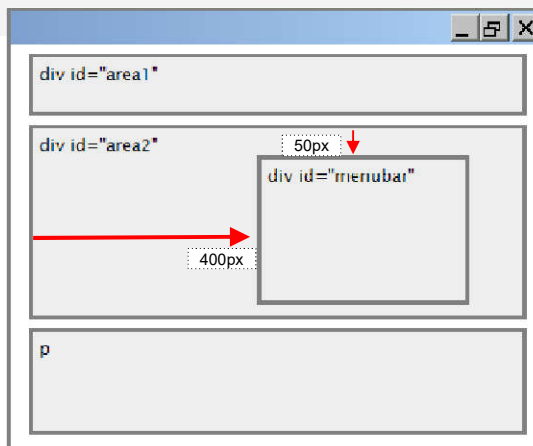
- **absolute**: fiksirana pozicija unutar odgovarajućeg "containing element"
- "containing element" je po default-u viewport

Možemo promijeniti containing element tako što postavimo "**position: relative;**" za nekog roditelja elementa koji je već apsolutno pozicioniran!

## Relative absolute positioning

```
#area2 {
  position: relative;
}

#menubar {
  position: absolute;
  left: 400px;
  top: 50px;
}
```



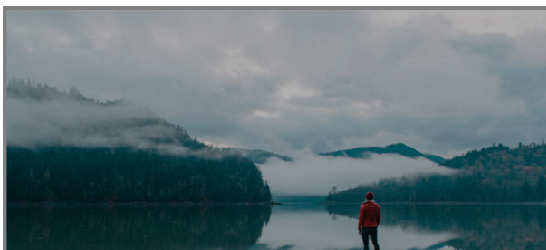
Offset-i su relativni za prvog roditeljskog elementa koji ima **position: relative** – u ovom slučaju je to **#area2**

## Primjer upotrebe: Overlay

```
<header>
  <div id="overlay"></div>
</header>
```

```
header {
  background-image: url(https://
  background-size: cover;
  height: 300px;
  position: relative;
}

#overlay {
  background-color:
  rgba(0, 0, 0, 0.3);
  position: absolute;
  top: 0;
  bottom: 0;
  height: 100%;
  width: 100%;
}
```



(CodePen)

Let's revisit Squarespace again!  
([link to solution](#))

Korisne cake



## calc

Možete koristiti CSS funkciju [calc](#) da definišete brojne vrijednosti pomoću izraza:

```
width: calc(50% - 10px);
```

```
width: calc(100% / 6);
```

([MDN details of calc](#))

## CSS promjenljive

**Promjenljive** su novina u CSS-u ([caniuse](#)).

```
:root {  
  --primary-color: hotpink;  
}
```

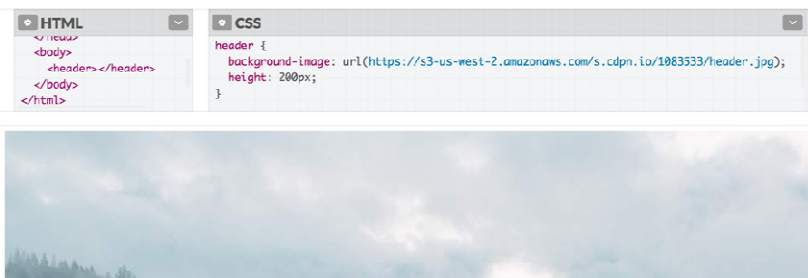
```
h1 {  
  background-color: var(--primary-color);  
}
```

([MDN details of CSS variables](#))

## background

Lak način za iscrtavanje (render) slike podešene na datuveličinu (stretched and cropped) : postavite je kao pozadinsku sliku elementa.

```
background-image: url(background.png);
```



([CodePen](#))

## background

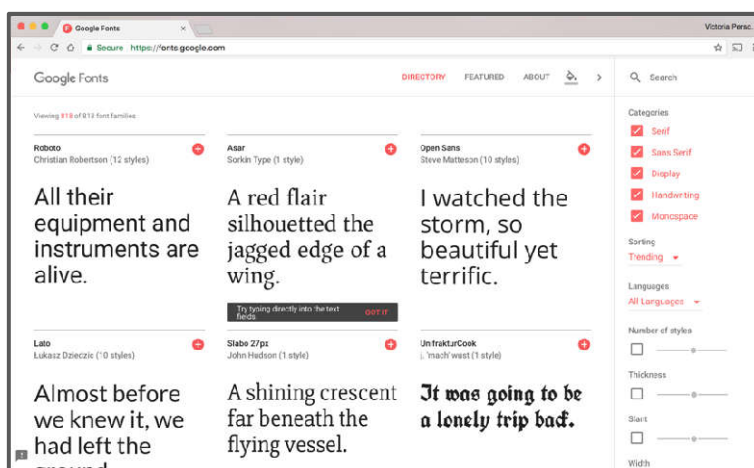
Možete koristiti [dodatna svojstva](#) za dodatno stilizovanje:

```
background-size: cover;  
background-size: contain;  
background-repeat: no-repeat;  
background-position: top;  
background-position: center;
```

([CodePen](#): pokušajte promjenu veličine prozora)

## Fontovi na webu

Možete koristiti [Google Fonts](https://fonts.google.com) za ljepše fontove:

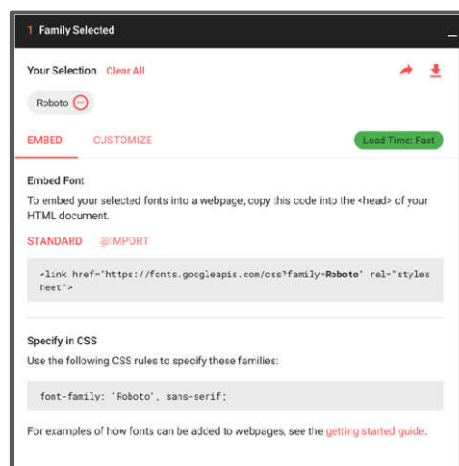


## Fontovi na webu

Možete koristiti [Google Fonts](https://fonts.google.com) za ljepše fontove:

Postupak je prilično lak.:

Dodajete zadati `<link>` tag u sekciju `<head>` vaše stranice zajedno sa CSS fajlovima.



## Fallback fontovi

Obratite pažnju da je u primjeru sa Google Fontovima data lista fontova u svojstvu `font-family`:

```
font-family: 'Roboto', sans-serif;
```

- Svaki isjedeći font je tzv. fallback, tj. učitava se ako se prethodni font ne učita
- Postoji šest [generičkih imena fontova](#), koji dopuštaju browseru da bira font na osnovu namjere i fontova sa OS.
- Dobra je praksa da na kraju liste fontova dodate jedna generički font.

## Hosted fonts with @font-face

Možete učitati vaše fontove sa [@font-face](#):

- Dajte ime vašem fontu
- Link ka lokaciji sa fajlom

```
<body>
  <h1>Always and Forever</h1>
</body>
```

```
@font-face {
  font-family: "My Custom Font";
  src: url("https://s3-us-west-2.amazonaws.com/...");
}

body {
  font-family: "My Custom Font", serif;
}
```

Always and Forever

[CodePen](#)