

HoGent

BEDRIJF
EN
ORGANISATIE

Webapplicaties 1

Layout (position) – Sprites – Extra opmaak

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Overzicht hoofdstuk

- Layout – position property
- Extra opmaak
 - css sprites
 - afgeronde hoeken – shadow (box-tekst)
 - color gradients
 - cursor style

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Layout: position property

Layout

- ▶ De layout van een webpagina is het positioneren van de elementen van een pagina.
- ▶ De **normale flow (position: static)** van een pagina stapelt alle block elementen op elkaar. Elk block element begint op een nieuwe lijn. Zelfs als de breedte van een element wordt aangepast (verminderd) zal een onderliggend element niet deze ruimte innemen, tenzij men ingrijpt in de normale flow.

Layout

- ▶ De normal flow (**position: static**) is duidelijk niet de meest sexy layout.
- ▶ Om de normal flow te doorbreken heeft men de volgende mogelijkheden:
 - float layout: **float** (zie hoofdstuk 4)
 - relatieve positionering: **position: relative**
 - absolute positionering: **position: absolute**
 - fixed positionering: **position: fixed**
 - flex: **zie later** (hoofdstuk 9)

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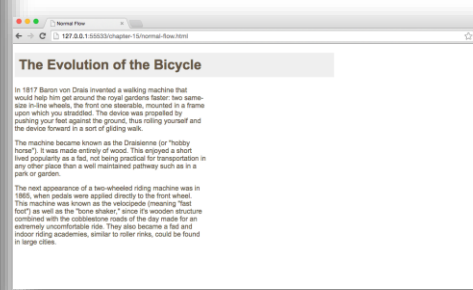
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Layout: normale flow

```

<head>
  <title>Normal Flow</title>
  <style type="text/css">
    body {
      width: 750px;
      font-family: Arial, Verdana, sans-serif;
      color: #665544;
    }
    h1 {
      background-color: #efefef;
      padding: 10px;
    }
    p {
      width: 450px;
    }
  </style>
</head>
<body>
  <h1>The Evolution of the Bicycle</h1>
  <p>In 1817 Baron von Drais invented a walking machine that would help him get around the royal gardens faster: two same-size wheels, the front one steerable, mounted in a frame upon which you sat astride. The device was propelled by pushing your feet against the ground, thus rolling yourself and the device forward in a sort of gliding walk.
  </p>
  <p>The machine became known as the Draisienne (or "hobby horse"). It was made entirely of wood. This enjoyed a short lived popularity as a fast, not being practical for transportation in any other sense than a well-maintained pathway such as in a park or garden.
  </p>
  <p>The next appearance of a two-wheeled riding machine was in 1860, when pedals were applied directly to the front wheel. This machine was known as the velocipede (meaning "fast foot") as well as the "boneshaker" since its wooden structure combined with the cobblestone roads of the day made for an extremely uncomfortable ride. They also became a fad and indoor riding academies, similar to roller rinks, could be found in large cities.
  </p>
  </body>
  </html>

```



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Relatieve positionering

- ▶ **position: relative**
- ▶ Relatieve positionering verplaatst het element **relatief tov zijn positie in de normale flow**. Dit heeft geen invloed op de positie van de andere elementen. Deze behouden hun normale positie.
- ▶ Offset (px - % - em) wordt bepaald door:
 - verticale verplaatsing: **top – bottom**
 - horizontale verplaatsing: **left – right**

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Relatieve positionering

```
<body>
  <h1>The Evolution of the Bicycle</h1>
  <p>In 1817 Baron von Drais invented a walking machine that
  royal gardens faster: two same-size in-line wheels, the front
  frame upon which you straddled. The device was propelled by
  ground, thus rolling yourself and the device forward in a sort
  <p class="example">The machine became known as the Draisienne,
  made entirely of wood. This enjoyed a short lived popularity
  for transportation in any other place than a well maintained
  garden.</p>
  <p>The next appearance of a two-wheeled riding machine was
  applied directly to the front wheel. This machine was known
  foot") as well as the "bone shaker," since it's wooden structure
  cobblestone roads of the day made for an extremely uncomfortable
  fad and indoor riding academies, similar to roller rinks, could
  </p>
</body>
```

```
body {
  width: 750px;
  font-family: Arial, Verdana, sans-serif;
  color: #665544;
}

p {
  width: 450px;
}

p.example {
  position: relative;
  top: 275px;
  left: 100px;
}
```

The Evolution of the Bicycle

In 1817 Baron von Drais invented a walking machine that would help him get around the royal gardens faster: two same-size in-line wheels, the front one steerable, mounted in a frame upon which you straddled. The device was propelled by pushing your feet against the ground, thus rolling yourself and the device forward in a sort of gliding walk.

The next appearance of a two-wheeled riding machine was in 1865, when pedals were applied directly to the front wheel. This machine was known as the velocipede (meaning "fast foot") as well as the "bone shaker," since it's wooden structure combined with the cobblestone roads of the day made for an extremely uncomfortable ride. They also became a fad and indoor riding academies, similar to roller rinks, could be found in large cities.

The machine became known as the Draisienne (or "hobby horse"). It was made entirely of wood. This enjoyed a short lived popularity as a fad, not being practical for transportation in any other place than a well maintained pathway such as in a park or garden.

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Absolute positionering

- ▶ **position: absolute**
- ▶ Absolute positionering verplaatst het element **relatief tov zijn eerste niet static parent** element, of het body element indien alle parent elementen static zijn. Voor de overige elementen is het alsof dit element nooit aanwezig is geweest in de normale flow. Ze nemen dus posities in zonder rekening te houden met het absolute gepositioneerde element. Bij het scrollen beweegt het element mee.
- ▶ Offset (px - % - em) wordt bepaald door:
 - verticale verplaatsing: **top – bottom**
 - horizontale verplaatsing: **left – right**

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Absolute positionering

```
<body>
<h1>The Evolution of the Bicycle</h1>
<p>In 1817 Baron von Drais invented a walking machine that would help him get around the royal gardens faster: two same-size in-line wheels, the front one steerable, mounted in a frame upon which you straddled. The device was propelled by pushing your feet against the ground, thus rolling yourself and the device forward in a sort of gliding walk.
<p>The machine became known as the Draisienne (or "hobby horse"). It was made entirely of wood. This enjoyed a short lived popularity as a fad, not being practical for transportation in any other place than a well maintained pathway such as in a park or garden.
<p>The next appearance of a two-wheeled riding machine was in 1865, when pedals were applied directly to the front wheel. This machine was known as the velocipede (meaning "fast foot") as well as the "bone shaker," since its wooden structure combined with the cobblestone roads of the day made for an extremely uncomfortable ride. They also became a fad and predecessor.</p>
<p>In 1870 the first all-metal machine was advanced enough to provide metal which was stronger than the wooden predecessor.</p>
```

```
body {
width: 750px;
font-family: Arial, Verdana, sans-serif;
color: #665544;}
h1 {
position: absolute;
top: 0px;
left: 500px;
width: 250px;}
p {
width: 450px;}
```

In 1817 Baron von Drais invented a walking machine that would help him get around the royal gardens faster: two same-size in-line wheels, the front one steerable, mounted in a frame upon which you straddled. The device was propelled by pushing your feet against the ground, thus rolling yourself and the device forward in a sort of gliding walk.

The machine became known as the Draisienne (or "hobby horse"). It was made entirely of wood. This enjoyed a short lived popularity as a fad, not being practical for transportation in any other place than a well maintained pathway such as in a park or garden.

The next appearance of a two-wheeled riding machine was in 1865, when pedals were applied directly to the front wheel. This machine was known as the velocipede (meaning "fast foot") as well as the "bone shaker," since its wooden structure combined with the cobblestone roads of the day made for an extremely uncomfortable ride. They also became a fad and predecessor.

The Evolution of the Bicycle

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Vaste positionering

- ▶ **position: fixed**
- ▶ Vaste positionering verplaatst het element **relatief tov het browser venster**. Voor de overige elementen is het alsof dit element nooit aanwezig is geweest in de normale flow. Ze nemen dus posities in zonder rekening te houden met het vast gepositioneerde element. Bij het scrollen beweegt het element NIET mee. Wordt gedaan bij menubalken die niet mogen meescrollen.
- ▶ Offset (px - % - em) wordt bepaald door:
 - verticale verplaatsing: **top – bottom**
 - horizontale verplaatsing: **left – right**

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Vaste positionering

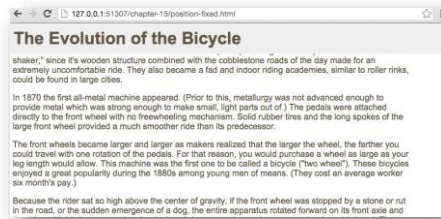
body>
 <h3>The Evolution of the Bicycle</h3>
 <ol class="list-item">
 In 1817 Baron von Drais invented the first bicycle, which he called the "Hobby Horse". It was a simple wooden frame with two wheels of equal size. The rider sat on a seat mounted on a frame upon which you straddled. The feet rested against the ground, thus rolling yourself and the frame forward.
 The machine became known as the Draisienne (or ley) of wood. This enjoyed a short lived popularity as a means of transport in any other place than a well populated area.
 The next appearance of a two-wheeled riding machine was the "boneshaker". It was made of metal (steel) as well as the "bone shaker", since it's wooden steeple roads of the day made for an extremely uncomfortable and indoor riding academies, similar to roller rinks.
 In 1878 the first all-metal machine appeared. It was called the "diamond" because of its shape. The pedals were attached directly to the front wheel with

```
body {
  width: 750px;
  font-family: Arial, Verdana, sans-serif;
  color: #665544;}

h1 {
  position: fixed;
  top: 0px;
  left: 0px;
  padding: 10px;
  margin: 0px;
  width: 100%;
  background-color: #efefef;}

p.example {
  margin-top: 100px;}
```

Header blijft vast bij het scrollen.



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Positionering: z-index

- ▶ Indien de positionering van elementen gewijzigd worden, kan het zijn dat elementen gaan overlappen. De volgorde van de elementen in de html pagina bepaalt welke bovenaan staat: het bovenste element zit steeds onder een element daaronder (stapelen van dozen, te beginnen met het eerste element)
- ▶ Deze volgorde kan gewijzigd worden door de **z-index**. de mogelijke waarde is een geheel getal. Hoe hoger de waarde, hoe hoger op de stapel.

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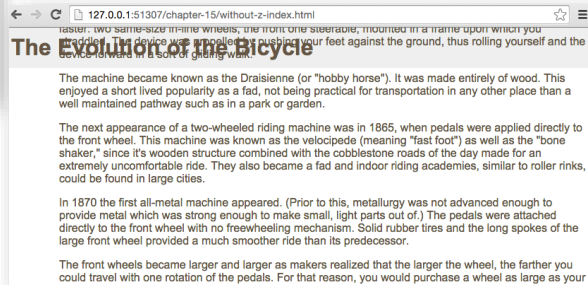
Positionering: z-index

- ▶ zonder z-index

```
<body>
<h1>The Evolution of the Bicycle</h1>
<p>In 1817 Baron von Drais invented a walking
royal gardens faster: two same-size in-line wheels
ame upon which you straddled. The device was propo
nd, thus rolling yourself and the device forward
<p>The machine became known as the Draisienne
irely of wood. This enjoyed a short lived popularit
nsportation in any other place than a well maintain
ten.</p>
<p>The next appearance of a two-wheeled riding
ied directly to the front wheel. This machine was
:) as well as the "bone shaker," since it's wooden
blestone roads of the day made for an extremely unc
and indoor riding academies, similar to roller rin
<p>In 1870 the first all-metal machine appear
anced enough to provide metal which was strong enou
pedals were attached directly to the front wheel v
er tires and the long spokes of the large front wh
</p>
</body>
```

```
h1 {
  position: fixed;
  top: 0px;
  left: 0px;
  margin: 0px;
  padding: 10px;
  width: 100%;
  background-color: #efefef;}

p {
  position: relative;
  top: 70px;
  left: 70px;}
```



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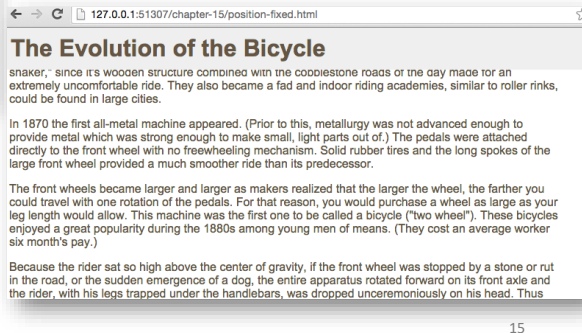
14

Positionering: z-index

► met z-index

```
<body>
<h1>The Evolution of the Bicycle</h1>
<p>In 1817 Baron von Drais invented a walking
royal gardens faster: two same-size in-line wheels
ame upon which you straddled. The device was propo
nd, thus rolling yourself and the device forward
<p>The machine became known as the Draisienne
irely of wood. This enjoyed a short lived popularity
isportation in any other place than a well maintain
den.</p>
<p>The next appearance of a two-wheeled riding
ied directly to the front wheel. This machine was
:) as well as the "bone shaker," since it's wooden
blestone roads of the day made for an extremely unc
and indoor riding academies, similar to roller rin
den.</p>
<p>In 1870 the first all-metal machine appeared
anced enough to provide metal which was strong enou
pedals were attached directly to the front wheel v
er tires and the long spokes of the large front wh
ndedness. This
```

```
color: #0000FF;
h1 {
  position: fixed;
  top: 0px;
  left: 0px;
  margin: 0px;
  padding: 10px;
  width: 100%;
  background-color: #efefef;
  z-index: 10;}
p {
  position: relative;
  top: 70px;
  left: 70px;}
```



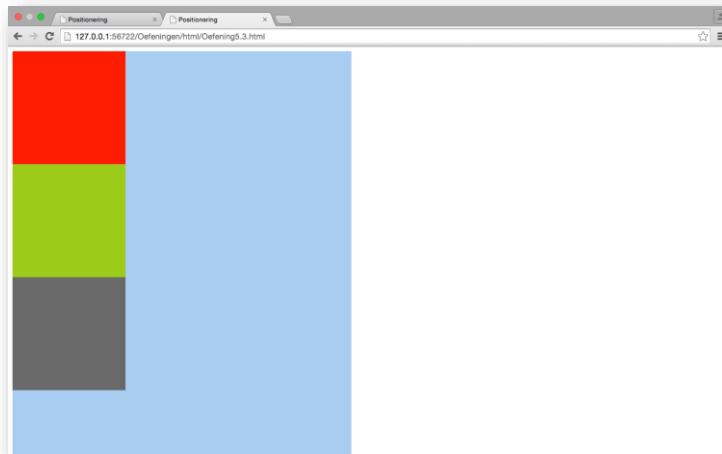
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Positionering: oefening

► Open position.html en position.css.

Start:

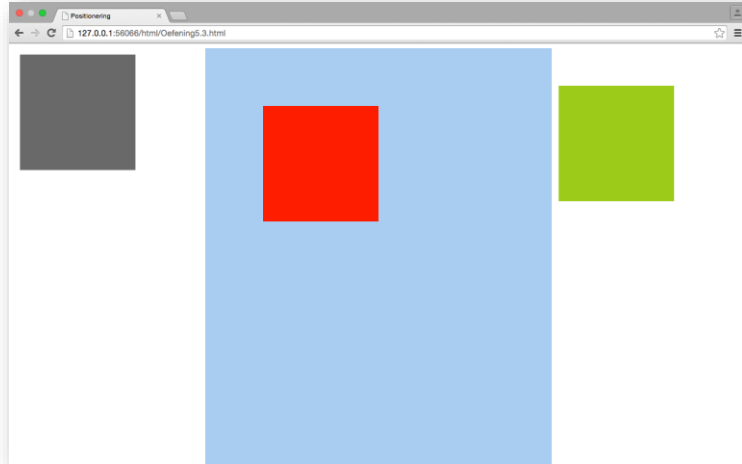


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Positionering: oefening

- Vul de css code aan zodat we volgend beeld krijgen bij gemaximaliseerd browservenster.

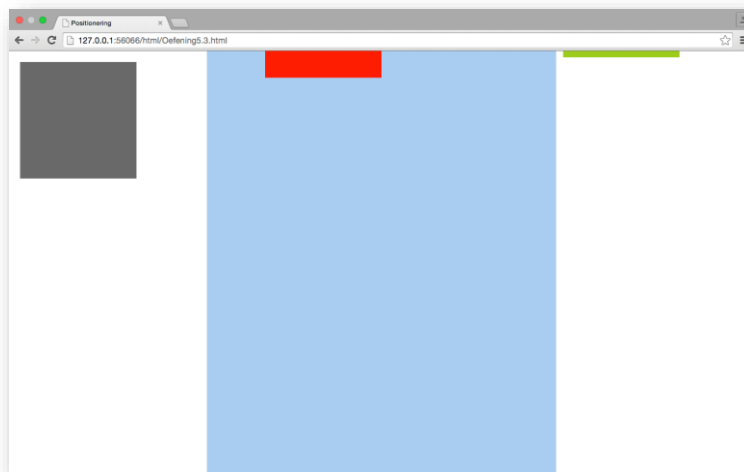


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Positionering: oefening

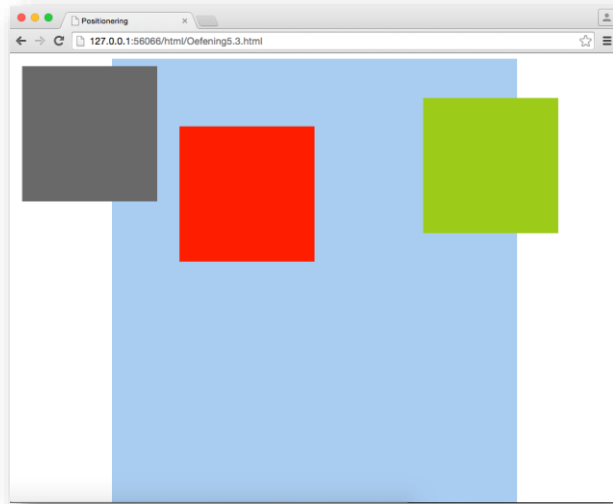
- Gemaximaliseerd browservenster, na scrollen naar beneden.



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Positionering: oefening

- ▶ Beeld bij kleiner browservenster.



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CSS Sprites

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Preloading Rollovers

- ▶ Met behulp van de :hover pseudo-class kan je ervoor zorgen dat de achtergrondafbeelding verandert, wanneer je met de muis over een element beweegt.
- ▶ Wanneer deze achtergrondafbeelding voor de eerste keer getoond wordt, moet deze nog 'gedownload' worden en zorgt dit voor een merkbare vertraging
- ▶ De oplossing zou zijn om de nieuwe achtergrondafbeelding reeds op voorhand te downloaden. Dit kan echter niet in CSS.
- ▶ Daarom maken we gebruik van CSS Sprites, waarbij 1 afbeelding gebruikt wordt voor de verschillende toestanden van het element.
- ▶ CSS Sprites worden écht heel vaak gebruikt (Yahoo, ...) Je kan ze creëren op <http://spritepad.wearekiss.com>

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CSS Sprites

```
<a class="button" id="add-to-basket">
  Add to basket</a>
<a class="button" id="framing-options">
  Framing options</a>
```

```
a.button {
  height: 36px;
  background-image: url("images/button-sprite.jpg");
  text-indent: -9999px;
  display: inline-block;}
a#add-to-basket {
  width: 174px;
  background-position: 0px 0px;}
a#framing-options {
  width: 210px;
  background-position: -175px 0px;}
a#add-to-basket:hover {
  background-position: 0px -40px;}
a#framing-options:hover {
  background-position: -175px -40px;}
a#add-to-basket:active {
  background-position: 0px -80px;}
a#framing-options:active {
  background-position: -175px -80px;}
```

COMPLETE IMAGE SPRITE

ADD TO BASKET (+)

FRAMING OPTIONS (📐)

ADD TO BASKET (+)

FRAMING OPTIONS (📐)

ADD TO BASKET (+)

FRAMING OPTIONS (📐)

RESULT

ADD TO BASKET (+)

FRAMING OPTIONS (📐)



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CSS Sprites: in detail

```
<body>

  <nav>
    <ul>
      <li><a href="#" class="active">Home</a></li>
      <li><a href="#">Producten</a></li>
      <li><a href="#">Info</a></li>
      <li><a href="#">Contact</a></li>
    </ul>
  </nav>

</body>
```



```
nav ul{
  list-style-type: none; /* geen bullets */
  padding: 0;
  margin: 0;
  width: 175px; /* breedte van 1 item van de navigatiebalk */
  border-bottom: 1px dashed #999; /* onderrand instellen voor de volledige
                                navigatiebalk (er is geen onderrand
                                voor een item afzonderlijk: zie li a) */
}
```

CSS Sprites: in detail

```
nav li a{
  color: #000; /* tekstkleur is zwart */
  font-size: 11px; /* tekstgrootte is 11px */
  text-transform: uppercase; /* items van de navigatie staan in hoofdletters */
  text-decoration: none; /* link wordt niet onderlijnd */
  border: 1px dashed #999; /* rand instellen */
  border-bottom: none; /* geen onderrand per item => geen dubbele rand */
  padding: 7px 5px 7px 30px;
  display: block; /* a wordt een block element, anders werkt padding niet */
  background-color: #E7E7E7; /* achtergrondkleur is lichtgrijs */
  background-image: url(../images/pixy.png); /* achtergrondaafbeelding */
  background-repeat: no-repeat; /* de achtergrond wordt niet herhaald */
  background-position: 0px 2px; /* de achtergrond begint op 0px 2px */
}
```

het punt 0px 2px →



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CSS Sprites: in detail

```
a:hover{
  font-weight: bold; /* tekst wordt in vet geplaatst */
  background-color: #B2F511; /* achtergrondkleur wordt groen */
  background-position: 0px -36px; /* de achtergrond begint op 0px 36px naar beneden */
}

.active{
  background-color: #FFFFFF; /* achtergrondkleur is wit */
  background-position: 0px -72px; /* de achtergrond begint op 0px 72px naar beneden */
  font-weight: bold; /* de tekst wordt in vet geplaatst */
}
```

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Afgeronde hoeken
Shadow: box & text

Border-radius

- ▶ 4 waarden
 - border-top-right-radius
 - border-bottom-right-radius
 - border-bottom-left-radius
 - border-top-left-radius
- Of in 1 lijn de 4 waarden

```
p {
  border: 5px solid #ee3e80;
  padding: 20px;
  width: 275px;
  border-radius: 10px;
}
```

Pet Sounds featured a number of unconventional instruments such as bicycle bells, buzzing organs, harpsichords, flutes, Electro-Theremin, dog whistles, trains, Hawaiian-sounding string instruments, Coca-Cola cans and barking dogs.

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Box Shadow

- ▶ Voegt een drop-shadow toe aan een box
- ▶ Minstens **horizontal** en **vertical offset** opgeven
 - Positieve waarde: rechts of onder de box
 - Negatieve waarde: links of boven de box
- ▶ **Blur distance**
 - 'zachte' overgang
- ▶ **Spread of distance**
 - Postieve waarde: in alle richtingen verspreiden
 - Negatieve waarde: krimpt weg
- ▶ **Kleur** van de schaduw

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Box Shadow

- ▶ Drop shadow
 - Horizontale offset
 - Verticale offset
 - Blur afstand
 - Spread van schaduw
 - Kleur

```
p.one {
  box-shadow: -5px -5px #777777;
}

p.two {
  box-shadow: 5px 5px 5px #777777;
}

p.three {
  box-shadow: 5px 5px 5px 5px #777777;
}

p.four {
  box-shadow: 0 0 10px #777777;
}

p.five {
  box-shadow: inset 0 0 10px #777777;
}
```

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Box Shadow

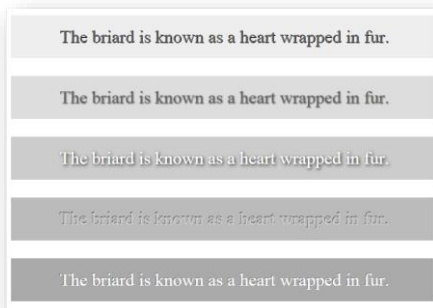


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Text Shadow

- ▶ Text shadow
 - Horizontale offset
 - Verticale offset
 - Blur afstand (optioneel)
 - Kleur



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```
p {
  font-size: 200%;
  padding: 20px;
  text-align: center;}
p.one {
  background-color: #eeeeee;
  color: #666666;
  text-shadow: 1px 1px 0px #000000;}
p.two {
  background-color: #dddddd;
  color: #666666;
  text-shadow: 1px 1px 3px #666666;}
p.three {
  background-color: #cccccc;
  color: #ffffff;
  text-shadow: 2px 2px 7px #111111;}
p.four {
  background-color: #bbbbbb;
  color: #cccccc;
  text-shadow: -1px -2px #666666;}
p.five {
  background-color: #aaaaaa;
  color: #ffffff;
  text-shadow: -1px -1px #666666;}
```

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Color gradients

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Gradients

- ▶ Met gradients wordt de overgang van de ene kleur naar een andere kleur bedoeld.
- ▶ Er bestaan verschillende types gradients
 - Linear gradients
 - Radial gradients
- ▶ Je kan gradients samenstellen gebruik makend van CSS [zie volgende slides] of op de volgende webpagina www.colorzilla.com/gradient-editor
- ▶ We moeten een vendor-prefix toevoegen (-webkit- voor Android).

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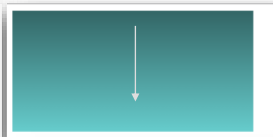
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Linear gradients

```
<body>
  <div id="gradient">
  </div>
</body>
```

- ▶ Bij een linear gradient volgt de kleurovergang een rechte lijn. Je geeft een begin en eindkleur op

```
#gradient {
  background: -webkit-linear-gradient(#336666, #66cccc);
  background: linear-gradient(#336666, #66cccc);
  height: 150px;
  width: 300px;
}
```



```
#gradient {
  background: -webkit-linear-gradient(to right, #336666, #66cccc);
  background: linear-gradient(to right, #336666, #66cccc);
}
```



```
#gradient {
  background: -webkit-linear-gradient(to bottom right, #336666, #66cccc);
  background: linear-gradient(to bottom right, #336666, #66cccc);
}
```



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Radial gradients

- ▶ Er bestaan ook radial gradients
- ▶ Er wordt een ellips vormige gradient gecreëerd waarbij de breedte en de hoogte overeenkomen met de breedte en de hoogte van het opgemaakte element

```
#gradient {
  background: -webkit-radial-gradient( #336666, #66cccc);
  background: radial-gradient( #336666, #66cccc);
}
```



- ▶ Er wordt een cirkelvormige gradient gecreëerd met als centrum het "midden" van het element

```
#gradient {
  background: -webkit-radial-gradient(circle, #336666, #66cccc);
  background: radial-gradient(circle, #336666, #66cccc);
}
```



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- ▶ <http://www.colorzilla.com/gradient-editor/>

The screenshot displays the ColorZilla Gradient Editor. The 'Presets' section shows a grid of color swatches. The 'Preview' section shows a yellow-to-white gradient. The 'CSS' section contains the following code:

```
/* Permalink - use to edit and share this gradient:
http://colorzilla.com/gradient-editor/#eef8b22,dd63843,dd92569,e7f04491 */
background: #eef8b22; /* Old browsers */
background: -moz-radial-gradient(center, ellipse cover, #eef8b22 22%, #dd63843 43%, #dd92569 69%, #e7f04491 91%); /* FF3.6+ */
background: -webkit-gradient(radial, center center, 0px, center center, 100%, color-stop(22%, #eef8b22), color-stop(43%, #dd63843), color-stop(69%, #dd92569), color-stop(91%, #e7f04491)); /* Chrome, Safari 14+ */
background: -webkit-radial-gradient(center, ellipse cover, #eef8b22 22%, #dd63843 43%, #dd92569 69%, #e7f04491 91%); /* Chrome 10+, Safari 15.1+ */
background: -o-radial-gradient(center, ellipse cover, #eef8b22 22%, #dd63843 43%, #dd92569 69%, #e7f04491 91%); /* Opera 12+ */
background: -ms-radial-gradient(center, ellipse cover, #eef8b22 22%, #dd63843 43%, #dd92569 69%, #e7f04491 91%); /* IE10+ */
background: radial-gradient(ellipse at center, #eef8b22 22%, #dd63843 43%, #dd92569 69%, #e7f04491 91%); /* W3C */
filter: progid:DXImageTransform.Microsoft.gradient( startColorstr='#eef8b22', endColorstr='#e7f04491', gradientType=1 ); /* IE6-9 fallback on horizontal gradient */
```

The 'Stops' section at the bottom shows a gradient with two stops: a yellow stop at 22% and a white stop at 91%.

Cursor styles

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Cursor eigenschap

- ▶ auto
- ▶ crosshair
- ▶ default
- ▶ pointer
- ▶ move
- ▶ text
- ▶ wait
- ▶ help
- ▶ url("cursor.gif")

I auto	✚ move	👉 no-drop	✚ col-resize
👤 all-scroll	👉 pointer	🚫 not-allowed	✚ row-resize
+ crosshair	👤 progress	↔ e-resize	↗ ne-resize
👤 default	I text	↑ n-resize	↖ nw-resize
👤 help	↕ vertical-text	↓ s-resize	↘ se-resize
I inherit	⌚ wait	↔ w-resize	↙ sw-resize