



# **HTML och CSS**

## **<Lektion class="åtta">**

Utbildare: Mahmud Al Hakim

# **NACKADEMIN**

# Lektionstillfällets mål

## Mål med lektionen

- Arbeta med CSS-Layouter (del 2 av 3)
- Responsiv webbdesign (Responsive Web Design)
- Introduktion till Bootstrap Framework
- Skapa en responsiv navigation
- Att läsa:

<https://www.w3schools.com/bootstrap4>

<https://getbootstrap.com>

# Kort summering av föregående lektion

## Föregående lektion:

- Vi har jobbat med ett antal layoutmodeller i CSS.
- Absolut, fixerad och flytande (floatmodellen).

# Vad är Responsiv Webbdesign? Responsive Web Design, RWD

”Responsiv webbdesign innebär webbdesign som tillåter layouten att förändras beroende på vilken skärmstorlek och skärmupplösning som besökaren har, och beroende på vilka funktioner som webbläsaren stödjer.”

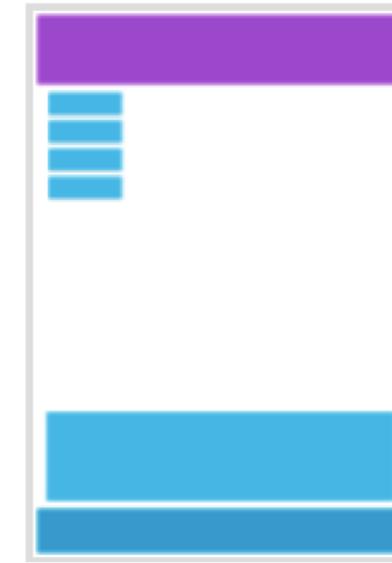
Källa: [https://sv.wikipedia.org/wiki/Responsiv\\_webbdesign](https://sv.wikipedia.org/wiki/Responsiv_webbdesign)

# Responsive Web Design

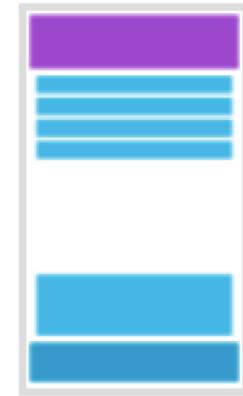
---



**Desktop**



**Tablet**

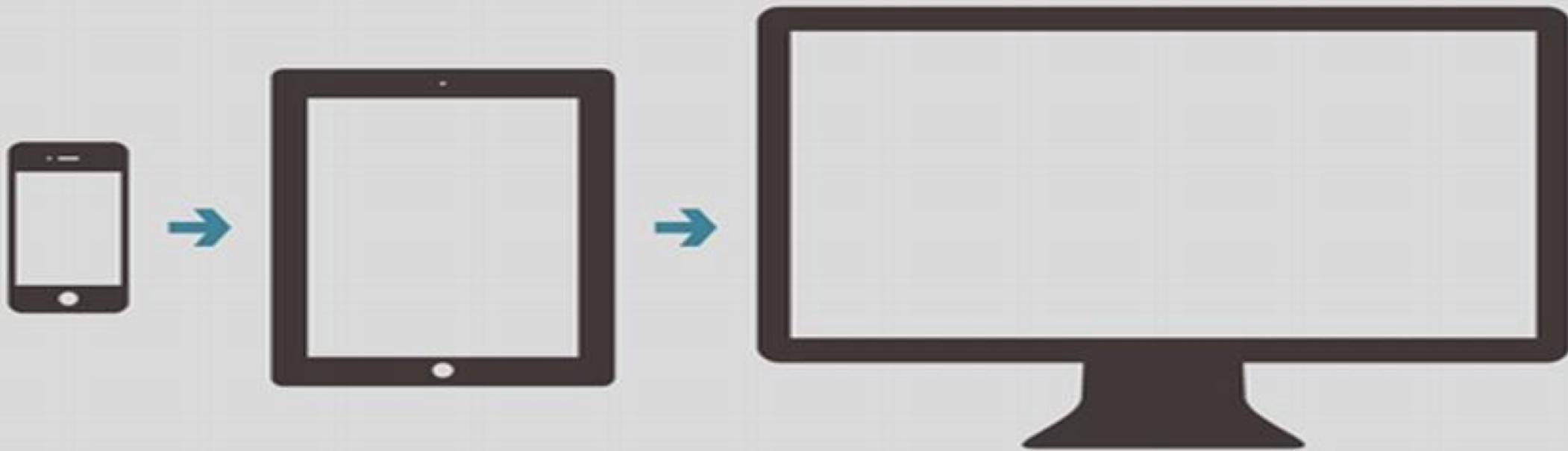


**Phone**

---

[https://www.w3schools.com/css/css\\_rwd\\_intro.asp](https://www.w3schools.com/css/css_rwd_intro.asp)

# MOBILE FIRST



<https://medium.com/@Vincentxia77/what-is-mobile-first-design-why-its-important-how-to-make-it-7d3cf2e29d00>

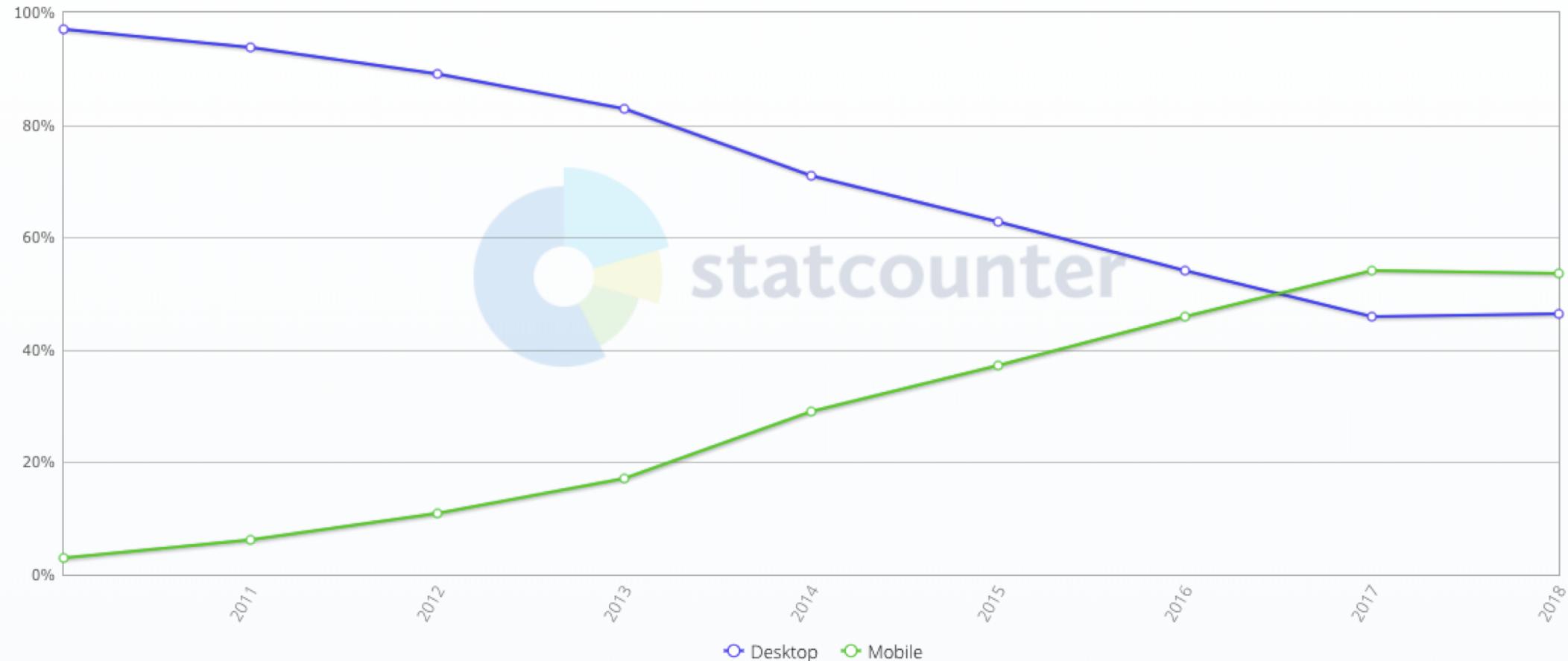
# Varför Mobile-first?

<http://gs.statcounter.com/platform-market-share/desktop-mobile/worldwide#yearly-2010-2018>

Desktop vs Mobile Market Share Worldwide

2010 - 2018

Edit Chart Data



# CSS Media Queries

- CSS Media Queries är en viktig del vid utveckling av Responsive Web.
- Med Media Queries arbetar vi med ett antal s.k. brytpunkter.
- Med brytpunkter kan vi bestämma när vissa CSS-Regler ska användas.
- Brytpunkterna begränsas utifrån webbläsarens bredd.

# CSS Media Queries – Exempel

```
@media (min-width: 576px) {  
    body {  
        background-color: red;  
    }  
}  
  
@media (min-width: 768px) {  
    body {  
        background-color: green;  
    }  
}  
  
@media (min-width: 992px) {  
    body {  
        background-color: blue;  
    }  
}
```

# Vad är Bootstrap?

# Bootstrap

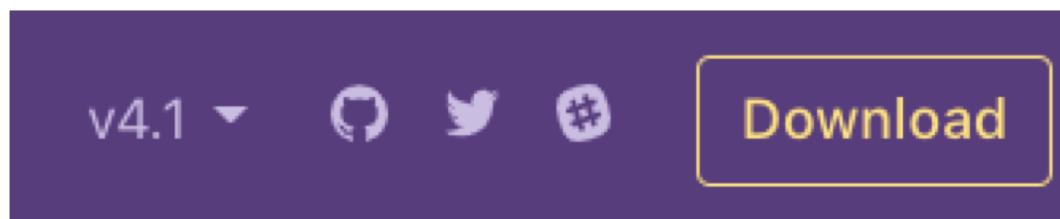
Build responsive, mobile-first projects on the web with the world's most popular front-end component library.

<http://getbootstrap.com>



# Ladda ner Bootstrap

1. Gå till <http://getbootstrap.com/>
2. Klicka på knappen "Download"
3. CSS-Biblioteket heter **bootstrap.css** och ligger i CSS-mappen.



# Min Första Bootstrap-sida

```
<!DOCTYPE html>
<html lang="sv">
<head>
    <meta charset="utf-8">
    <title>Bootstrap Exempel 1</title>
    <link rel="stylesheet" href="bootstrap.css">
</head>
<body>
    <h1>Min första Bootstrap-sida</h1>
    <p>Lite text och annat smått och gott.</p>
</body>
</html>
```

# Metataggen viewport

- Viewport är enhetens visuella area av en webbsida.
- Viewport är olika på olika enheter.
- Med hjälp av metataggen viewport kan vi kontrollera hur en webbsida ska skalas (zoomas).

```
<meta name="viewport"  
      content="width=device-width, initial-scale=1">  
  
width=device-width anger att bredden på sidan ska följa enhetens bredd.  
initial-scale=1 anger om sidan ska skalas upp/ner (1 = 100%).
```

Bra att läsa: [https://www.w3schools.com/css/css\\_rwd\\_viewport.asp](https://www.w3schools.com/css/css_rwd_viewport.asp)

# Bootstrap CDN – Content Delivery Network

```
<link rel="stylesheet"  
      href=" https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css ">
```

## **One advantage of using the Bootstrap CDN:**

Many users already have downloaded Bootstrap from MaxCDN when visiting another site. As a result, it will be loaded from cache when they visit your site, which leads to faster loading time. Also, most CDN's will make sure that once a user requests a file from it, it will be served from the server closest to them, which also leads to faster loading time.

# Bootstrap JavaScript

- Vissa Bootstrap-komponenter kräver ett antal JavaScript bibliotek.  
T.ex. Carousel och responsiv navigering
- Dessa JS-bibliotek brukar inkluderas längst ner på sidan, före </body>
  1. jQuery <http://jquery.com>
  2. Popper <https://popper.js.org>
  3. Bootstrap eget bibliotek!

# En bättre grundmall (Starter template)

<https://getbootstrap.com/docs/4.1/getting-started/introduction/>

The screenshot shows a web browser displaying the Bootstrap documentation at <https://getbootstrap.com/docs/4.1/getting-started/introduction/>. The page title is "Starter template". On the left, there is a sidebar with navigation links for "Getting started", "Layout", "Content", "Components", "Utilities", "Extend", "Migration", and "About". The main content area contains a heading "Starter template" and a paragraph about ensuring pages are set up with the latest standards. Below this is a code block showing the HTML structure for a basic Bootstrap page, including doctype, head (meta tags like charset and viewport), body (title and h1), and optional JavaScript (jQuery, Popper.js, and Bootstrap JS).

Search...

B Home Documentation Examples Themes Expo Blog v4

Getting started

Introduction

Download

Contents

Browsers & devices

JavaScript

Theming

Build tools

Webpack

Accessibility

Layout

Content

Components

Utilities

Extend

Migration

About

## Starter template

Be sure to have your pages set up with the latest design and development standards. That means using an HTML5 doctype and including a viewport meta tag for proper responsive behaviors. Put it all together and your pages should look like this:

```
<!doctype html>
<html lang="en">
  <head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">

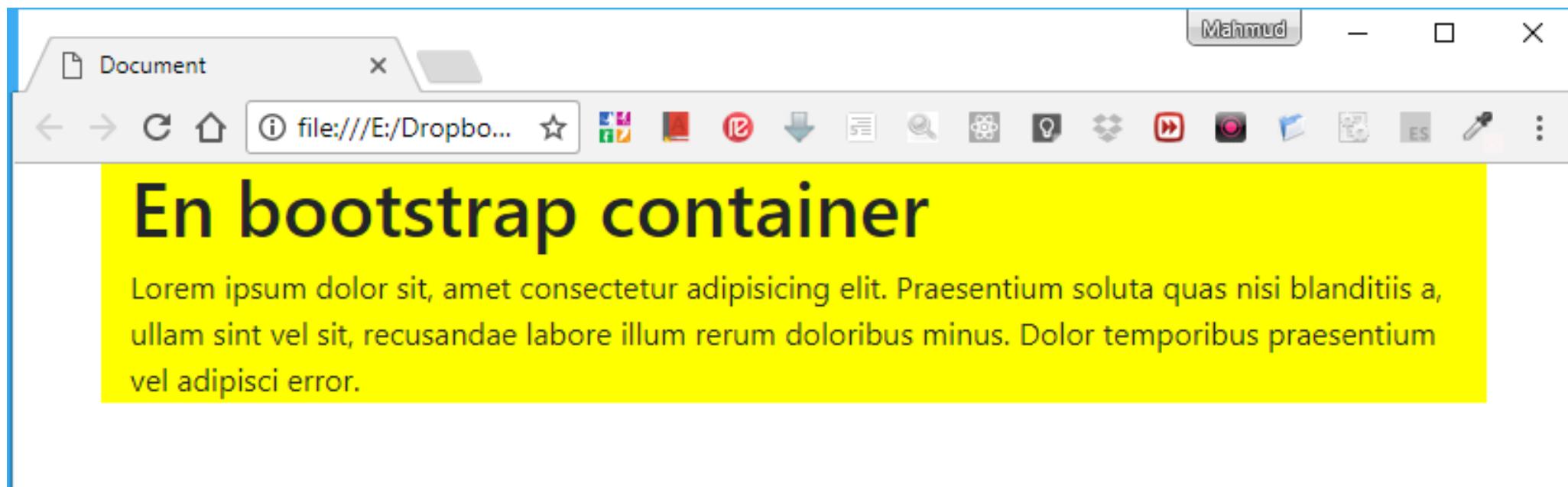
    <!-- Bootstrap CSS -->
    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css" integrity="sha384-ggOyR0iXCbMQv3Xipma34MD+dH/1143x" crossorigin="anonymous">

    <title>Hello, world!</title>
  </head>
  <body>
    <h1>Hello, world!</h1>

    <!-- Optional JavaScript -->
    <!-- jQuery first, then Popper.js, then Bootstrap JS -->
    <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js" integrity="sha384-q8i/X+965Dz00rT7abK41JStQIAq" crossorigin="anonymous"></script>
    <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3/umd/popper.min.js" integrity="sha384-ZMP7rVo3mIykV4cFq�" crossorigin="anonymous"></script>
    <script src="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/js/bootstrap.min.js" integrity="sha384-Chfqxi" crossorigin="anonymous"></script>
  </body>
</html>
```

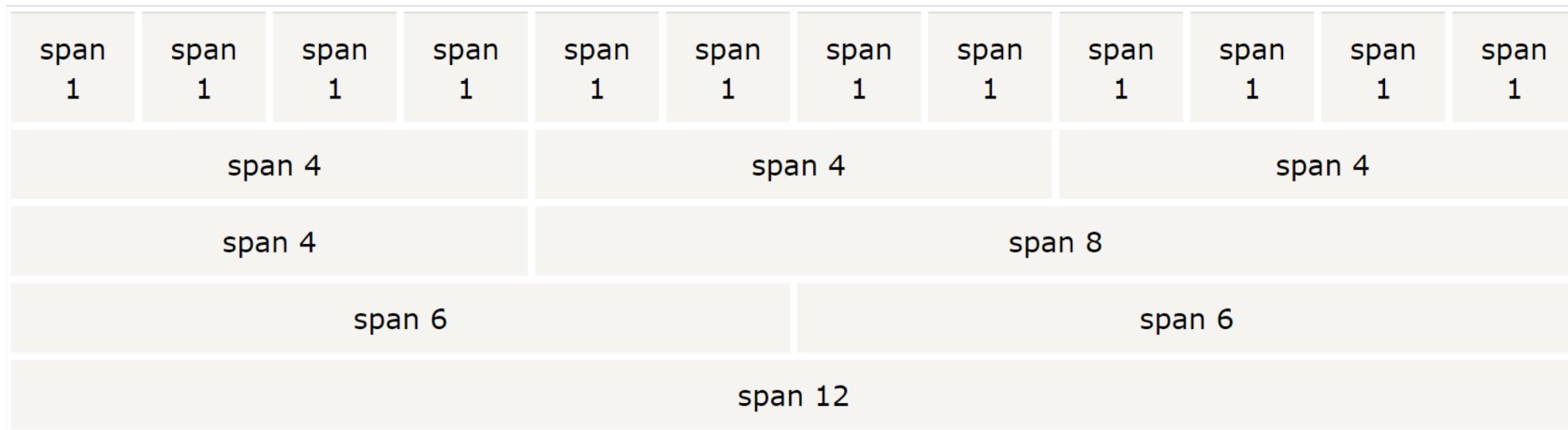
# Container

```
<div class="container" style="background-color: yellow;">  
<h1>En bootstrap container</h1>  
</div>
```



# Bootstrap Grid System

- Bootstrap använder rader och kolumner för placering av innehåll.
- Bootstrap tillåter upp till 12 kolumner på en sida.
- Dessa 12 kolumner kan grupperas för att få bredare kolumner.



Bildkälla: [https://www.w3schools.com/bootstrap4/bootstrap\\_grid\\_basic.asp](https://www.w3schools.com/bootstrap4/bootstrap_grid_basic.asp)

# Bootstrap Grid System – Exempel 1

3 kolumner med automatisk bredd på alla enheter

```
<div class="container">  
  <div class="row">  
    <div class="col">Kolumn 1</div>  
    <div class="col">Kolumn 2</div>  
    <div class="col">Kolumn 3</div>  
  </div>  
</div>
```

# Bootstrap Grid System – Exempel 2

Kolumn 1 och 3 har automatiska bredder.

Kolumn 2 använder 6 av 12 (halva sidans bredd)

```
<div class="container">  
  <div class="row">  
    <div class="col">Kolumn 1</div>  
    <div class="col-6">Kolumn 2</div>  
    <div class="col">Kolumn 3</div>  
  </div>  
</div>
```

# Grid breakpoints

- Bootstrap använder olika brytpunkter för olika enheter.

	<b>Extra small</b> <code>&lt;576px</code>	<b>Small</b> <code>≥576px</code>	<b>Medium</b> <code>≥768px</code>	<b>Large</b> <code>≥992px</code>	<b>Extra large</b> <code>≥1200px</code>
<b>Max container width</b>	None (auto)	540px	720px	960px	1140px
<b>Class prefix</b>	<code>.col-</code>	<code>.col-sm-</code>	<code>.col-md-</code>	<code>.col-lg-</code>	<code>.col-xl-</code>

Läs mer

<https://getbootstrap.com/docs/4.1/layout/grid/>

# Grid breakpoints – Exempel 1

- Visa 3 kolumner på små enheter och uppåt ( $\geq 576\text{px}$ ).
- På mobiltelefoner staplas kolumnerna under varandra automatiskt.

```
<div class="container">
  <div class="row">
    <div class="col-sm">Kolumn 1</div>
    <div class="col-sm">Kolumn 2</div>
    <div class="col-sm">Kolumn 3</div>
  </div>
</div>
```

# Grid breakpoints – Exempel 2

- Visa 2 kolumner med olika bredder på medium enheter och uppåt ( $\geq 768\text{px}$ ).
- OBS! På mobiltelefoner staplas kolumnerna under varandra automatiskt.

```
<div class="row">
  <div class="col-md-4">Kolumn 1</div>
  <div class="col-md-8">Kolumn 2</div>
</div>
```

# Grid breakpoints – Exempel 3

- Visa 4 kolumner på medium enheter och uppåt.
- Visa 2 kolumner på alla andra enheter.

```
<div class="row">
    <div class="col-6 col-md-3">Kolumn 1</div>
    <div class="col-6 col-md-3">Kolumn 2</div>
    <div class="col-6 col-md-3">Kolumn 3</div>
    <div class="col-6 col-md-3">Kolumn 4</div>
</div>
```

# Jumbotron

```
<div class="container">
<div class="jumbotron">
<h1>Hello, world!</h1>
<p class="lead">
This is a simple hero unit, a simple jumbotron-style
component for calling extra attention to featured
content or information.</p>
</div>
</div>
```

## Hello, world!

This is a simple hero unit, a simple jumbotron-style component for calling extra attention to featured content or information.

# Kontextuella färger

Följande klasser används för att visa färger som har olika kontextuella betydelser!

```
<p class="text-primary">.text-primary</p>
<p class="text-secondary">.text-secondary</p>
<p class="text-success">.text-success</p>
<p class="text-danger">.text-danger</p>
<p class="text-warning">.text-warning</p>
<p class="text-info">.text-info</p>
<p class="text-light">.text-light</p>
<p class="text-dark">.text-dark</p>
```

.text-primary

.text-secondary

.text-success

.text-danger

.text-warning

.text-info

.text-light

.text-dark

# Kontextuella bakgrundsfärger

```
<p class="bg-primary text-white">.bg-primary</p>
<p class="bg-secondary text-white">.bg-secondary</p>
<p class="bg-success text-white">.bg-success</p>
<p class="bg-danger text-white">.bg-danger</p>
<p class="bg-warning text-white">.bg-warning</p>
<p class="bg-info text-white">.bg-info</p>
<p class="bg-dark text-white">.bg-dark</p>
<p class="bg-light">.bg-light</p>
<p class="bg-white">.bg-white</p>
```

# Kontextuella länkar

```
<p><a href="#" class="text-primary">Primary link</a></p>
<p><a href="#" class="text-secondary">Secondary link</a></p>
<p><a href="#" class="text-success">Success link</a></p>
<p><a href="#" class="text-danger">Danger link</a></p>
<p><a href="#" class="text-warning">Warning link</a></p>
<p><a href="#" class="text-info">Info link</a></p>
<p><a href="#" class="text-light">Light link</a></p>
<p><a href="#" class="text-dark">Dark link</a></p>
```

# Textjustering

```
<p class="text-left">
```

Left aligned text on all viewport sizes.</p>

```
<p class="text-center">
```

Center aligned text on all viewport sizes.</p>

```
<p class="text-right">
```

Right aligned text on all viewport sizes.</p>

# Width

```
<p class="w-25 bg-light">Width 25%</p>
<p class="w-50 bg-light">Width 50%</p>
<p class="w-75 bg-light">Width 75%</p>
<p class="w-100 bg-light">Width 100%</p>
```

# Margin och Padding

- Margin och padding anges i detta format  
**{property}{sides}-{size}**
  - **Property** är antingen **m** (margin) eller **p** (padding)
  - **Sides** är **t** (top), **b** (bottom), **l** (left), **r** (right)  
**x** (left och right), **y** (top och bottom)
  - **Size** är mellan 0 och 5 (3 = 1rem \*)
- 
- Tips: Bra att läsa om rem
  - <https://www.sitepoint.com/understanding-and-using-rem-units-in-css/>

# Margin – Exempel

```
<div class="m-0">Margin 0</div>
<div class="m-1">Margin 1</div>
<div class="m-2">Margin 2</div>
<div class="m-3">Margin 3</div>
<div class="m-4">Margin 4</div>
<div class="m-5">Margin 5</div>
```

# Padding – Exempel

```
<div class="p-0">Padding 0</div>
<div class="p-1">Padding 1</div>
<div class="p-2">Padding 2</div>
<div class="p-3">Padding 3</div>
<div class="p-4">Padding 4</div>
<div class="p-5">Padding 5</div>
```

# Margin – Flera exempel

```
<p><span class="mr-5 bg-success">Margin Right 5</span> lorem ipsum,  
<span class="ml-3 bg-success">Margin Left 3 </span> dolor sit amet.</p>  
<p>Lorem ipsum<span class="mx-5 bg-success">Margin Left & Right 5</span>  
dolor sit amet.</p>  
<p class="my-5 bg-success">Margin Top & Bottom 5</p>  
<p>Lorem ipsum dolor sit amet, consectetur elit. Voluptatum, optio.</p>
```

Margin Right 5      lorem ipsum,    Margin Left 3 dolor sit amet.

Lorem ipsum      Margin Left & Right 5      dolor sit amet.

Margin Top & Bottom 5

Lorem ipsum dolor sit amet, consectetur elit. Voluptatum, optio.

# Automatiska marginaler

```
<div class="mx-auto w-25 bg-light">  
Center this div  
</div>
```

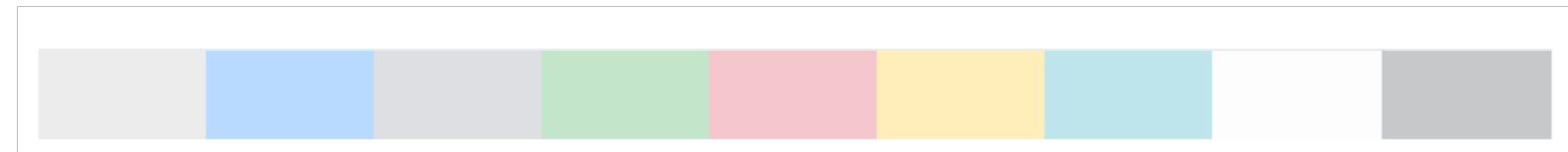
# Tabeller

```
<table class="table table-bordered table-hover">
<thead class="thead-dark">
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Email</th>
</tr>
</thead>
<tr>
<td>John</td>
<td>Doe</td>
<td>jdoe@gmail.com</td>
</tr>
</table>
```

First Name	Last Name	Email
John	Doe	jdoe@gmail.com

# Tabeller – Kontextuella klasser

```
<table class="table">  
  <tr>  
    <td class="table-active"></td>  
    <td class="table-primary"></td>  
    <td class="table-secondary"></td>  
    <td class="table-success"></td>  
    <td class="table-danger"></td>  
    <td class="table-warning"></td>  
    <td class="table-info"></td>  
    <td class="table-light"></td>  
    <td class="table-dark"></td>  
  </tr>  
</table>
```



# Responsiva Bilder

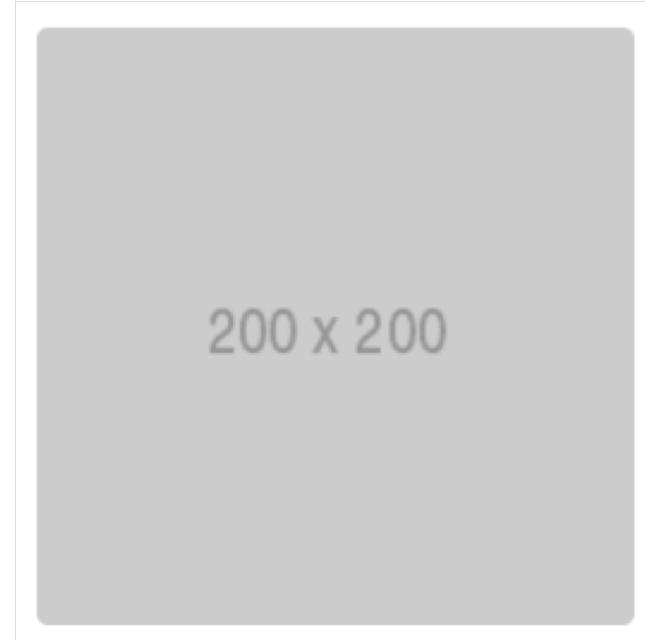
```

```

# Runda hörn

```

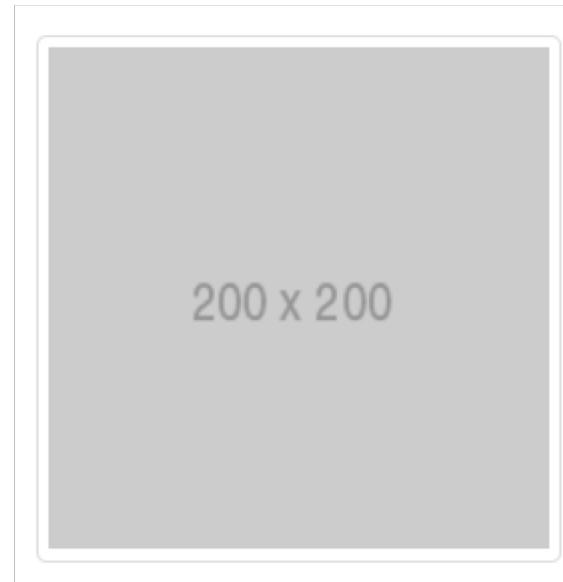
```



# Thumbnails

```

```



# Högerjustera bilder

```

```

```
<p>
```

```
    Lorem ipsum dolor sit amet consectetur adipisicing elit...</p>
```

Lorem ipsum dolor sit amet consectetur  
 adipisicing elit. Quas itaque porro officia  
 commodi animi fuga non soluta alias dolor  
 nostrum. Iure rerum accusamus possimus  
 architecto est eveniet beatae dicta debitis.

A gray placeholder image with the dimensions "200 x 200" displayed in the center.

# Knappar

```
<button type="button" class="btn btn-primary">Primary</button>
<button type="button" class="btn btn-secondary">Secondary</button>
<button type="button" class="btn btn-success">Success</button>
<button type="button" class="btn btn-danger">Danger</button>
<button type="button" class="btn btn-warning">Warning</button>
<button type="button" class="btn btn-info">Info</button>
<button type="button" class="btn btn-light">Light</button>
<button type="button" class="btn btn-dark">Dark</button>
```

Primary

Secondary

Success

Danger

Warning

Info

Light

Dark

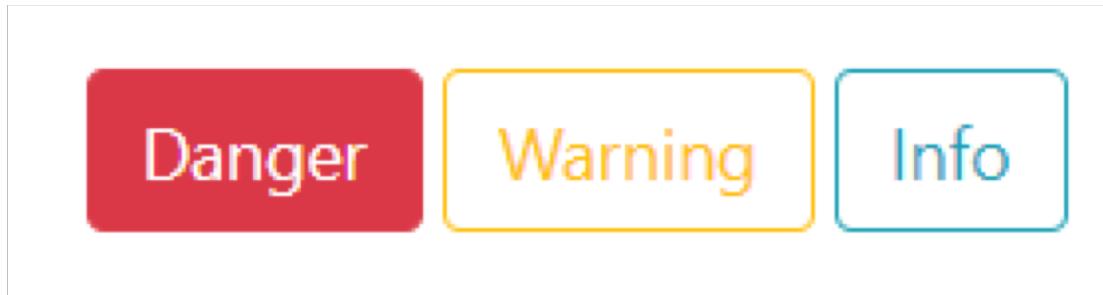
# Outline knappar

```
<button type="button"  
        class="btn btn-outline-primary">Primary</button>  
<button type="button"  
        class="btn btn-outline-secondary">Secondary</button>  
<button type="button"  
        class="btn btn-outline-success">Success</button>
```



# Visa länkar som knappar

```
<a href="#" class="btn btn-outline-danger">Danger</a>
<a href="#" class="btn btn-outline-warning">Warning</a>
<a href="#" class="btn btn-outline-info">Info</a>
```



# Knappar – Olika Storlekar

```
<button type="button"  
       class="btn btn-primary btn-lg">Large button</button>  
<button type="button"  
       class="btn btn-primary">Standard button</button>  
<button type="button"  
       class="btn btn-primary btn-sm">Small button</button>
```

Large button

Standard button

Small button

# Knappar – Block level button

```
<button type="button"  
       class="btn btn-primary btn-block">  
    Block level button  
</button>
```



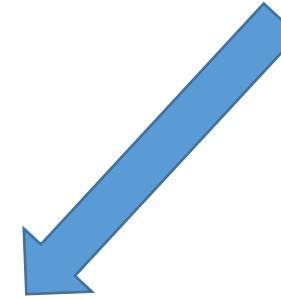
Block level button

# Collapse (OBS! Kräver JavaScript)

```
<a class="btn btn-primary"  
    data-toggle="collapse" href="#collapseExample">
```

Mer info...

```
</a>
```



```
<div class="collapse" id="collapseExample">
```

  Lorem ipsum dolor sit amet.

```
</div>
```

# Alerts

```
<div class="alert alert-primary">  
This is a primary alert.</div>  
<div class="alert alert-success">  
This is a success alert.</div>  
<div class="alert alert-danger">  
This is a danger alert.</div>  
<div class="alert alert-warning">  
This is a warning alert.</div>  
<div class="alert alert-info">  
This is a info alert.</div>
```

This is a primary alert.

This is a success alert.

This is a danger alert.

This is a warning alert.

This is a info alert.

# Dismissible alert (OBS! Kräver JavaScript)

```
<div class="alert alert-warning alert-dismissible fade show">
<button type="button" class="close" data-dismiss="alert">
  <span>&times;</span>
</button>
<strong>OBS!</strong> Denna sida använder cookies.
</div>
```

**OBS!** Denna sida använder cookies.



# Formulär

Anmälan till vårt nyhetsbrev!

Ange en giltig e-postadress

Ja, tack!

```
<form method="post" action="">
<h2>Anmälan till vårt nyhetsbrev!</h2>
<div class="form-group">
    <input class="form-control" type="email" required
          placeholder="Ange en giltig e-postadress">
</div>
<button type="submit" class="btn btn-primary">
    Ja, tack!
</button>
</form>
```

# Navigering – Listor

Home      About      Contact

```
<ul class="nav justify-content-center">
<li class="nav-item">
    <a class="nav-link" href="#">Home</a>
</li>
<li class="nav-item">
    <a class="nav-link" href="#">About</a>
</li>
<li class="nav-item">
    <a class="nav-link" href="#">Contact</a>
</li>
</ul>
```

# Navigering – Pills

Home

About

Contact

```
<ul class="nav justify-content-center nav-pills">
<li class="nav-item">
    <a class="nav-link active" href="#">Home</a>
</li>
<li class="nav-item">
    <a class="nav-link" href="#">About</a>
</li>
<li class="nav-item">
    <a class="nav-link" href="#">Contact</a>
</li>
</ul>
```

# Carousel

```
<div class="carousel slide" data-ride="carousel">
<div class="carousel-inner">
<div class="carousel-item active">

</div>
<div class="carousel-item">

</div>
<div class="carousel-item">

</div>
</div>
</div>
```

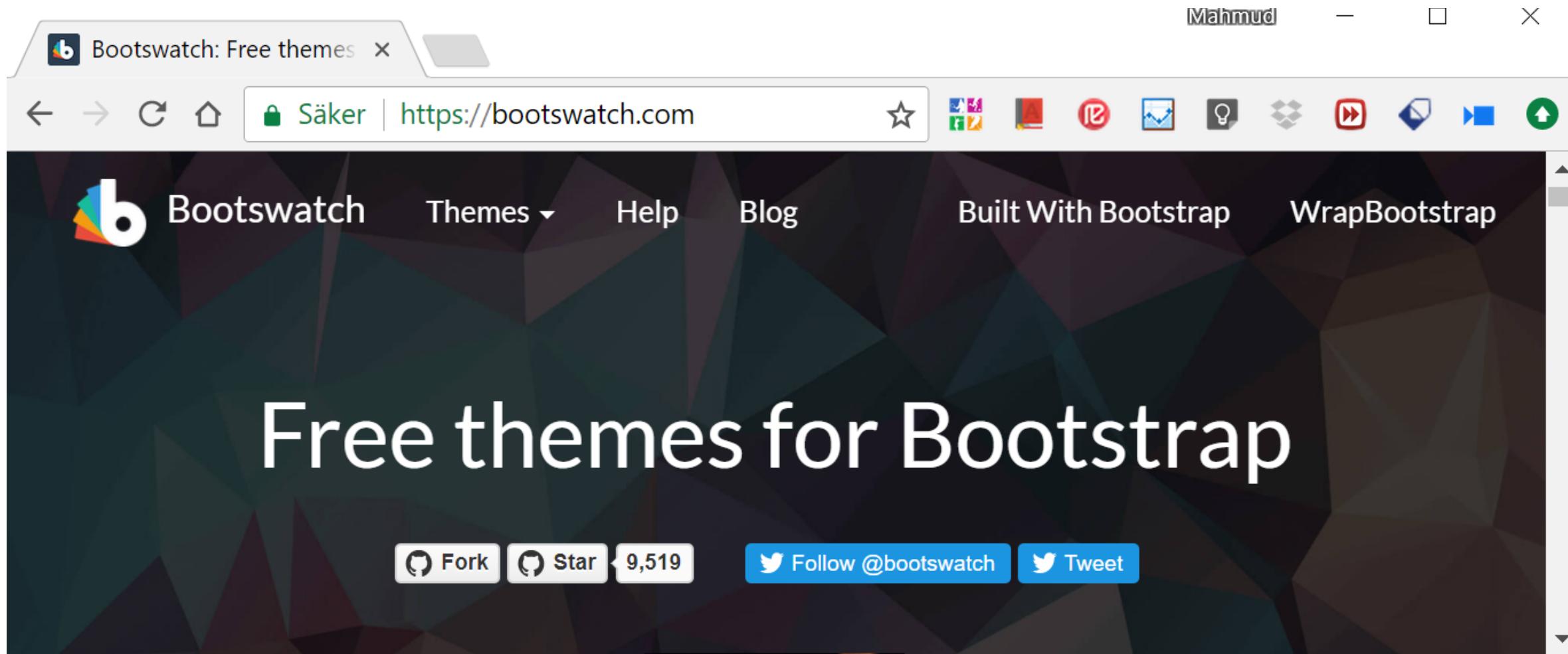
# Responsiv navigering (Navbar)

```
<nav class="navbar navbar-expand-lg navbar-light bg-light">
<a class="navbar-brand" href="#">Navbar</a>
<button class="navbar-toggler" type="button" data-toggle="collapse"
        data-target="#nav">
    <span class="navbar-toggler-icon"></span>
</button>
<div class="collapse navbar-collapse" id="nav">
<ul class="navbar-nav">
<li class="nav-item active"><a class="nav-link" href="#">Home</a></li>
<li class="nav-item"><a class="nav-link" href="#">About</a></li>
</ul>
</div>
</nav>
```

Navbar

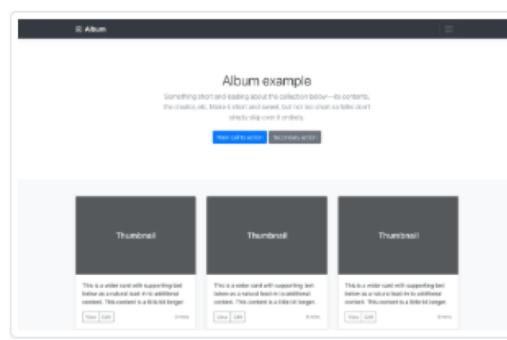


# Bootswatch.com – Gratis BS-Teman



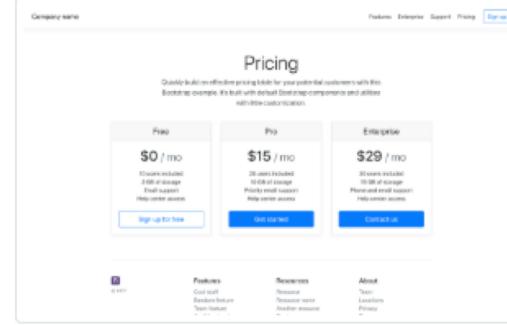
# Övning 1: Gå igenom BS-exempel

## <https://getbootstrap.com/docs/4.1/examples>



### Album

Simple one-page template for photo galleries, portfolios, and more.

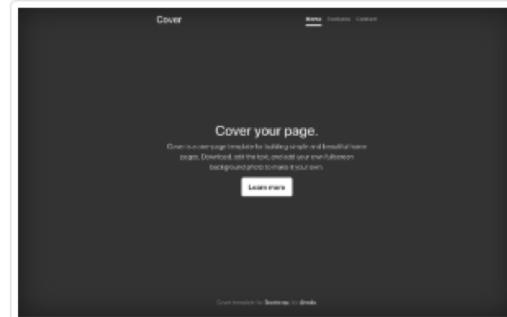


### Pricing

Example pricing page built with Cards and featuring a custom header and footer.

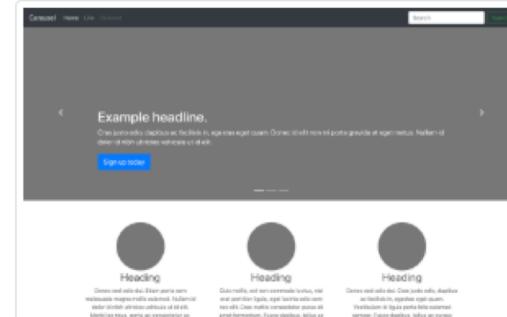
### Checkout

Custom checkout form showing our form components and their validation features.



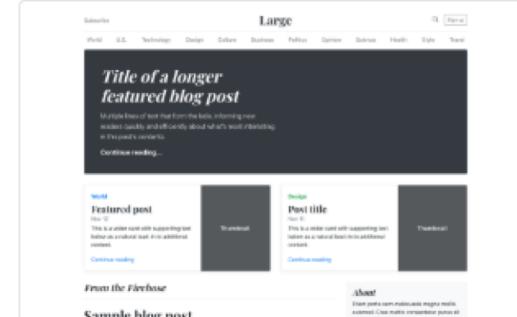
### Cover

A one-page template for building simple and beautiful home pages.



### Carousel

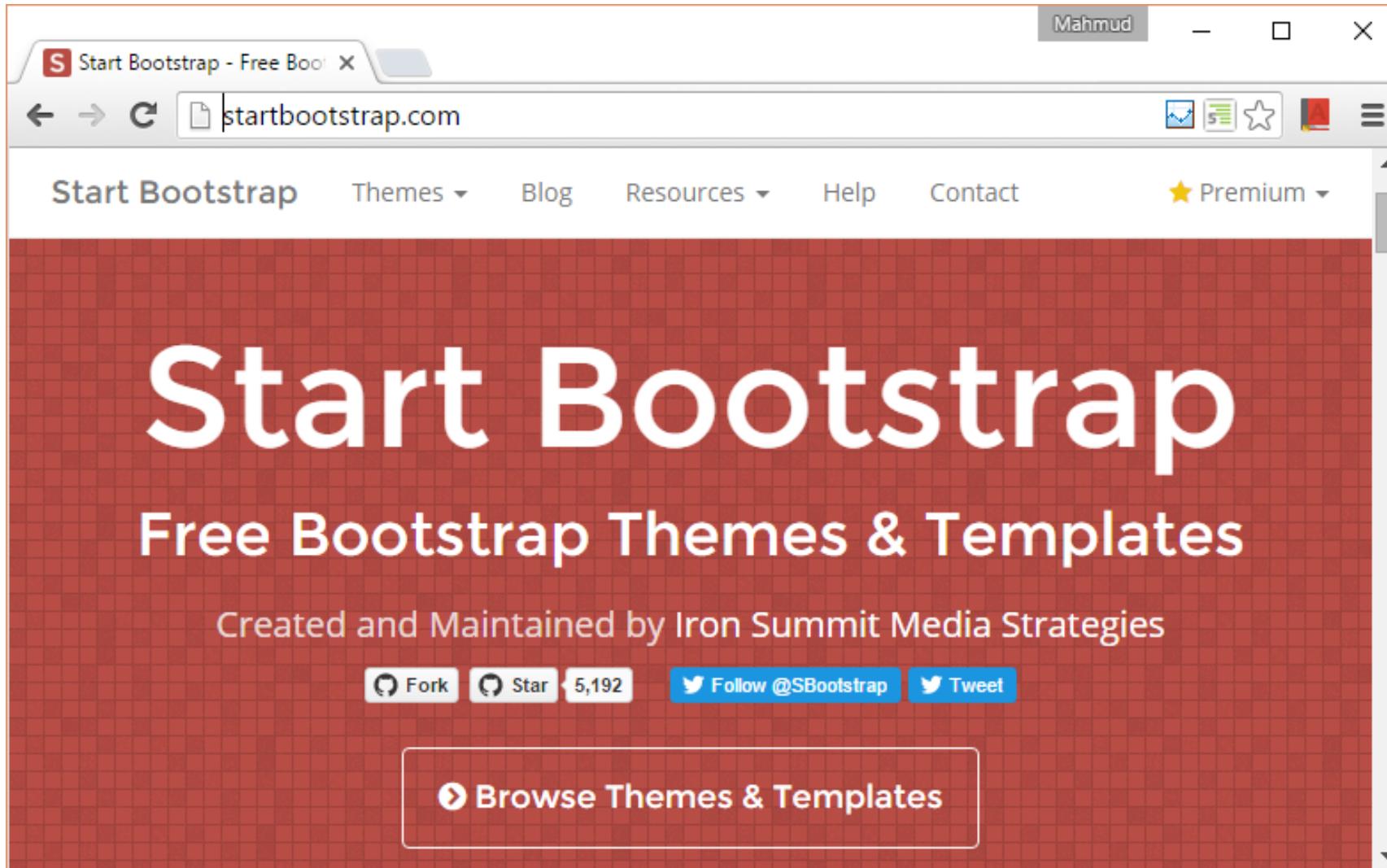
Customize the navbar and carousel, then add some new components.



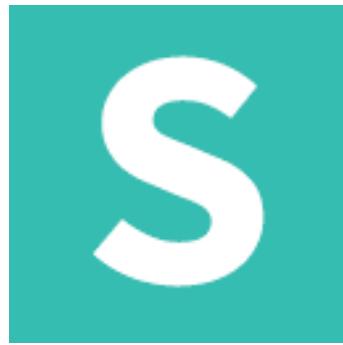
### Blog

Magazine like blog template with header, navigation, featured content.

Övning 2: Ladda ner och testa Bootstrap Mallar Från  
<http://startbootstrap.com>



# Tips: Titta på några Andra CSS-Ramverk



<https://semantic-ui.com>



<https://foundation.zurb.com>



<http://materializecss.com>



<http://bulma.io>



<http://milligram.io>



<http://tachyons.io>



<https://getuikit.com>

# Summering av dagens lektion

- **Vi har jobbat med Mobile-First och Responsive Web**
- **Vi har gått igenom grunderna i Bootstrap!**
- Reflektioner kring dagens lektion?
  - Vad tar du med dig från dagens lektion?
  - Finns det något som var extra svårt att förstå?
  - Finns det något som vi behöver repetera?
  - Hur upplevde du dagens arbetsmetoder?

# Framåtblick inför nästa lektion

- Under nästa lektion kommer vi att arbeta med flera layoutmodeller i CSS.
- Vi ska jobba med **Flexbox och Grid**.