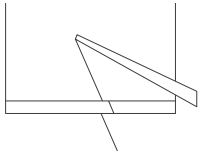
Bring ideas to life
VIA University College



Bootstrap Continued

RWD I1

Today's Agenda

- Mid-semester evaluation
- Midterm
- Recap – Bootstrap
- Bootstrap – Images
- Bootstrap – Buttons
- Bootstrap - Navigation bar
- Bootstrap – Carousel
- Exercise

Mid-semester evaluation

- Find it on Studienet
- Fill it in (5-10 minutes)

- We will discuss the outcome

Questions

Midterm

- Wednesday 25/10 at 9:00 AM
- Don't be late!

- Topics: HTML, CSS, media queries, and Bootstrap

- The test
  - Questions and answers are shuffled
  - **14 multiple choice questions** with 5 answer options (3 points for each question)
  - **3 short answer questions** (explain code or write code, points vary)

- Digital test: Moodle
- Duration: **60 minutes**

- 50 points to pass the test

Midterm

- **What can you bring?**
  - Everything!
    - You have access to the internet
    - You can test code in Brackets
    - Books
    - Exercises
    - Etc.

- **RULES**
  - Turn off and hand in your phone
  - No social media
  - If you are caught cheating then you are expelled from the test and reported to the school (consequences unknown)

Recap: The Bootstrap Framework

- A collection of CSS styling and JavaScript files that have to be copied into folders in your webpage project.
- Controlled by assigning keyword class names in your HTML tags.
- Greatly reduces the amount of CSS styling code you have to write.
- In fact, setting or changing CSS style properties while at the same time trying to utilize Bootstrap features, while often cause the features not to function properly.
  - Especially `width`, `height`, `float` and `position` properties.

Grid Layout – One of Many Bootstrap Features

Bootstrap's grid layout divides the page (or element) into 12 columns.
If you do not want to use all 12 columns individually, you can group the columns together to create wider columns:

span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1
span 4				span 4				span 4				
span 4				span 8								
span 6						span 6						
span 12												

Bootstrap's grid layout is responsive, and the columns will re-arrange automatically depending on the browser window size.

Grid Layout – Syntax

```
<div class="row">
  <div class="col-α-β">…</div>
</div>

<div class="container">
 <div class="row">
  <div class="col-md-12">…</div>
 </div>
 <div class="row">
  <div class="col-md-4">…</div>
  <div class="col-md-4">…</div>
  <div class="col-md-4">…</div>
 </div>
 <div class="row">
  …
</div>
```

Breakpoints!

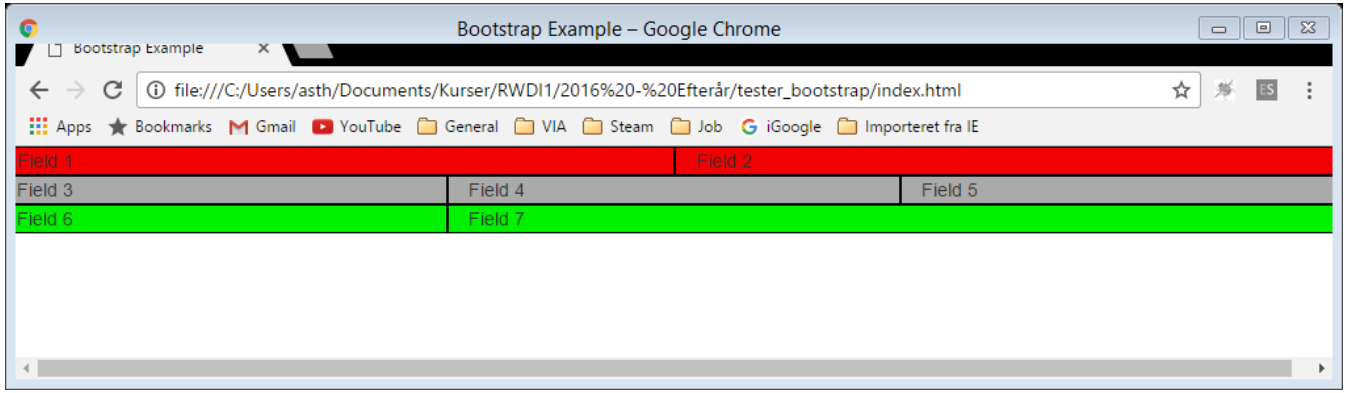
α
- xs (extra small)
- sm (small)
- md (medium)
- lg (large)

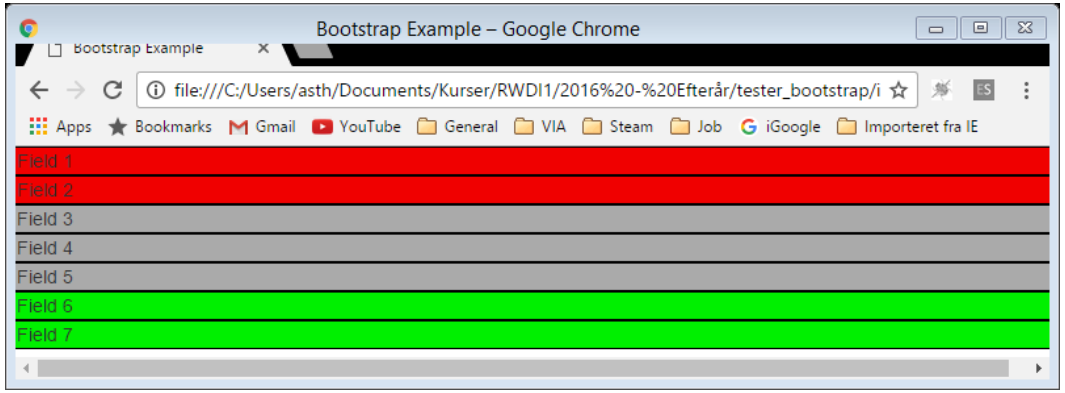
No. columns this element should cover

β
- 1
- 2
- 3
- …
- 12

Recap: Grid Layout

A Bootstrap feature that allows you to create a responsive "table" layout with a maximum of 12 columns in each row. Unlike regular HTML defined tables, this one can readjust the number of columns each cell should span across at different breakpoints. In addition, when the viewport becomes too small the content of the cells can break the structure and display stacked on each other instead.





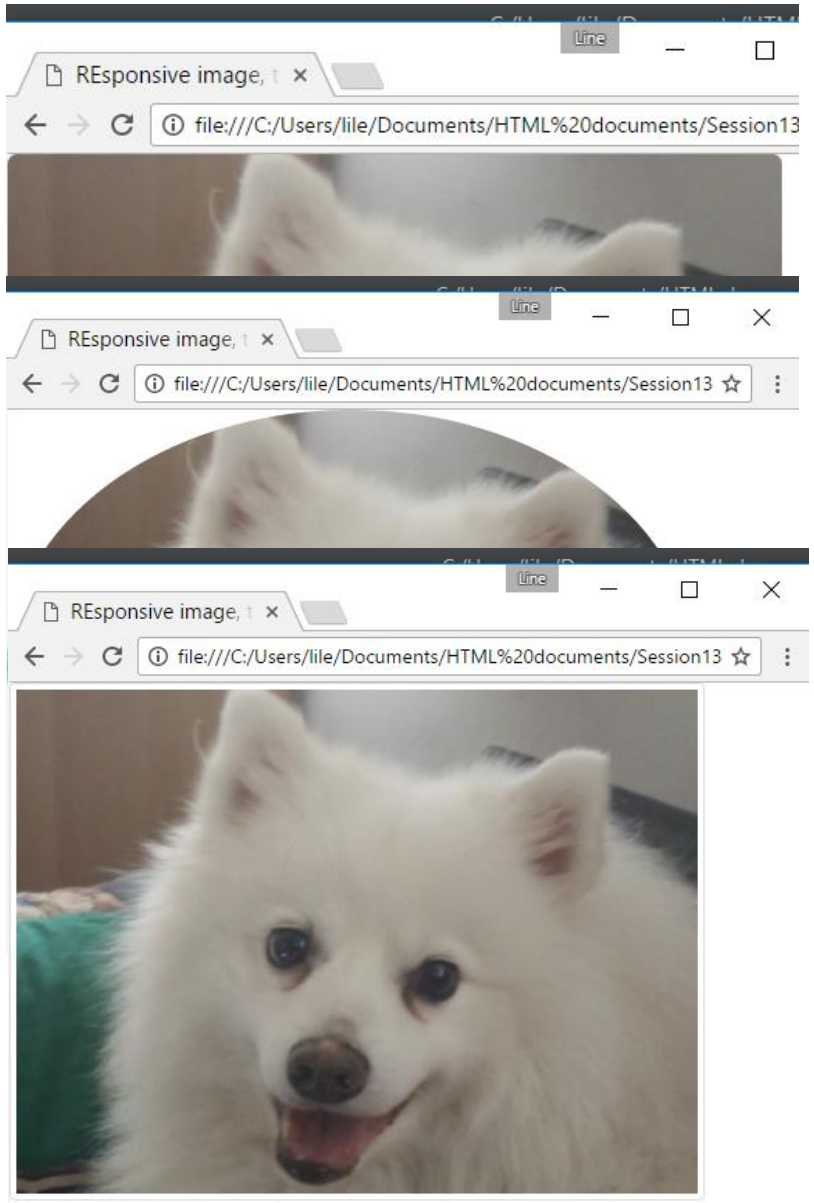
More Bootstrap Features

Bootstrap - Images

```
<img class="img-rounded" src="…">
```

```
<img class="img-circle" src="…">
```

```
<img class="img-thumbnail" src="…">
```



To make an image responsive:

```
<img class="img-rounded/circle/thumbnail img-responsive" src="…">
```

Bootstrap - Buttons

Add the Bootstrap `btn` class to and a HTML button tag to apply the Bootstrap button shape to the element. Ex.:

```
<button class="btn">Press me</button>
```

Press me

In addition, a range of color styles are provided. Ex.:

```
<button class="btn btn-default">Press me</button>
<button class="btn btn-primary">Press me</button>
<button class="btn btn-success">Press me</button>
```

Press me

Press me

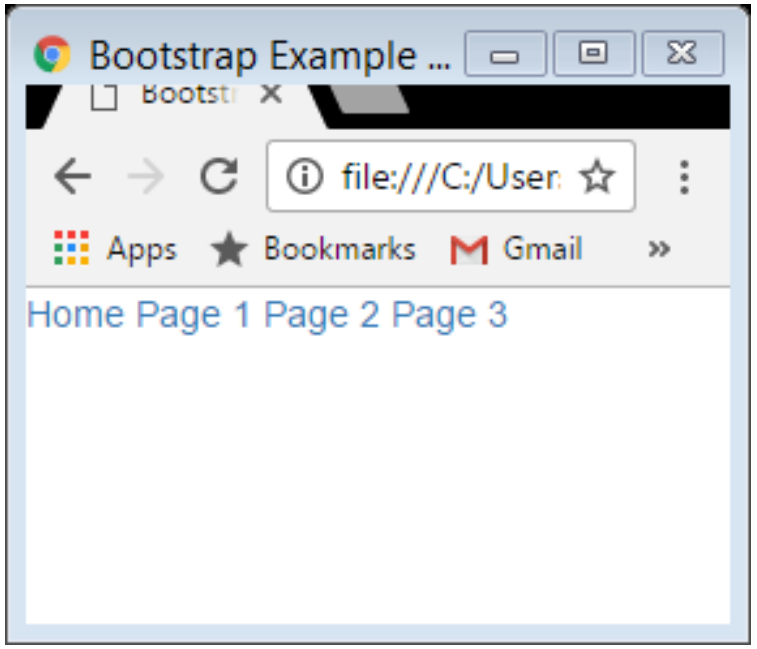
Press me

Button size can be controlled by adding one of the classes:
`btn-lg`, `btn-md`, `btn-sm` or `btn-xs`.
Note: these classes have nothing to do with breakpoints.

Bootstrap - Navigation Bar

The HTML 5 navigation bar tag:

```
<nav>
  <a href="#">Home</a>
  <a href="#">Page 1</a>
  <a href="#">Page 2</a>
  <a href="#">Page 3</a>
</nav>
```



The # should be replaced with an URL path to the corresponding HTML document file for that page.

Bootstrap - Navigation Bar

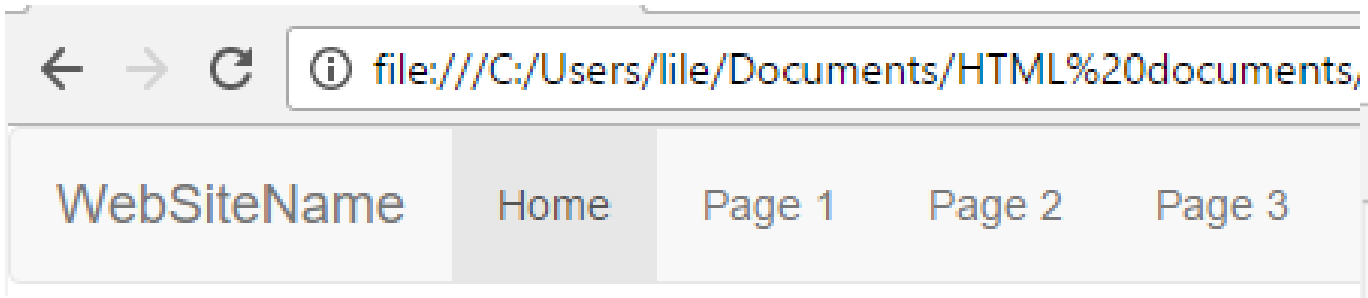
```
<nav class="navbar navbar-default">
  <div class="navbar-header">
    <a class="navbar-brand" href="#">WebSiteName</a>
  </div>
  <ul class="nav navbar-nav">
    <li class="active"><a href="#">Home</a></li>
    <li><a href="#">Page 1</a></li>
    <li><a href="#">Page 2</a></li>
    <li><a href="#">Page 3</a></li>
  </ul>
</nav>
```

Applies the Bootstrap navigation bar styling to the element.

Creates a header section in the navigation bar, where you can put a link to the front page of the website (index.html) and/or a logo.

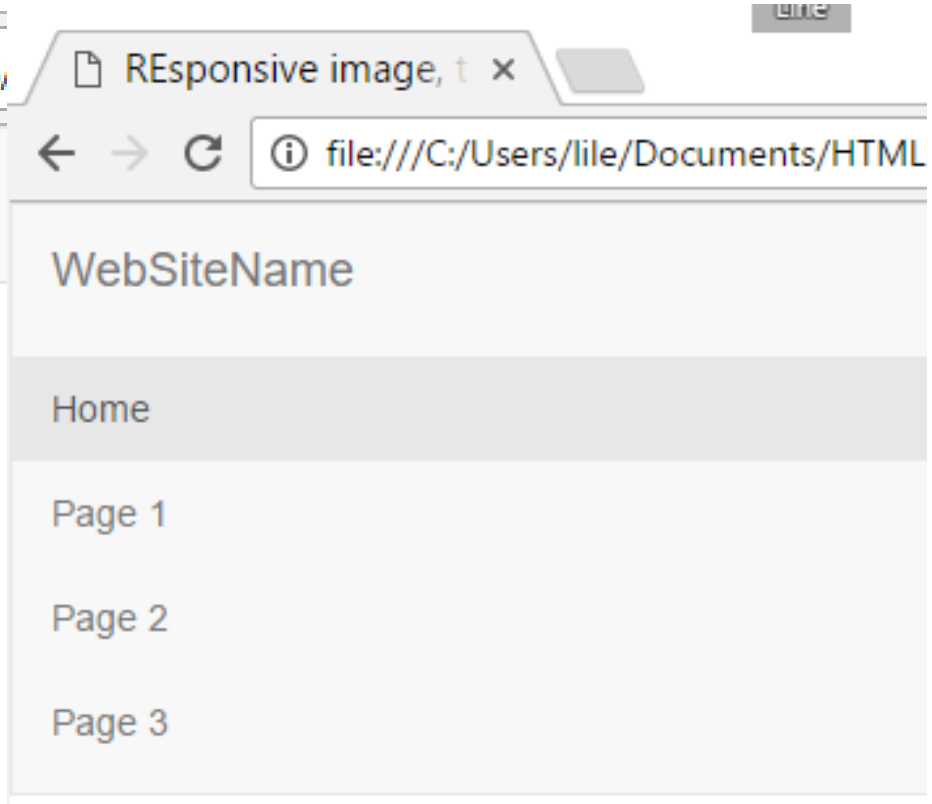
Creates links to 4 pages (Home included) and styles one of the links as active.

Bootstrap - Navigation Bar



Build-in responsiveness!

The navigation bar collapse at the `sm` breaking point (768 pixels).



Navigation Bar – Collapsible

```
<nav class="navbar navbar-default">
  <div class="navbar-header">
    <button class="navbar-toggle" data-toggle="collapse" data-target="#myNavbar">
      <span class="icon-bar"></span>
      <span class="icon-bar"></span>
      <span class="icon-bar"></span>
    </button>
    <a class="navbar-brand" href="#">WebSiteName</a>
  </div>
  <div class="collapse navbar-collapse" id="myNavbar">
    <ul class="nav navbar-nav">
      <li class="active"><a href="#">Home</a></li>
      <li><a href="#">Page 1</a></li>
      <li><a href="#">Page 2</a></li>
      <li><a href="#">Page 3</a></li>
    </ul>
  </div>
</nav>
```

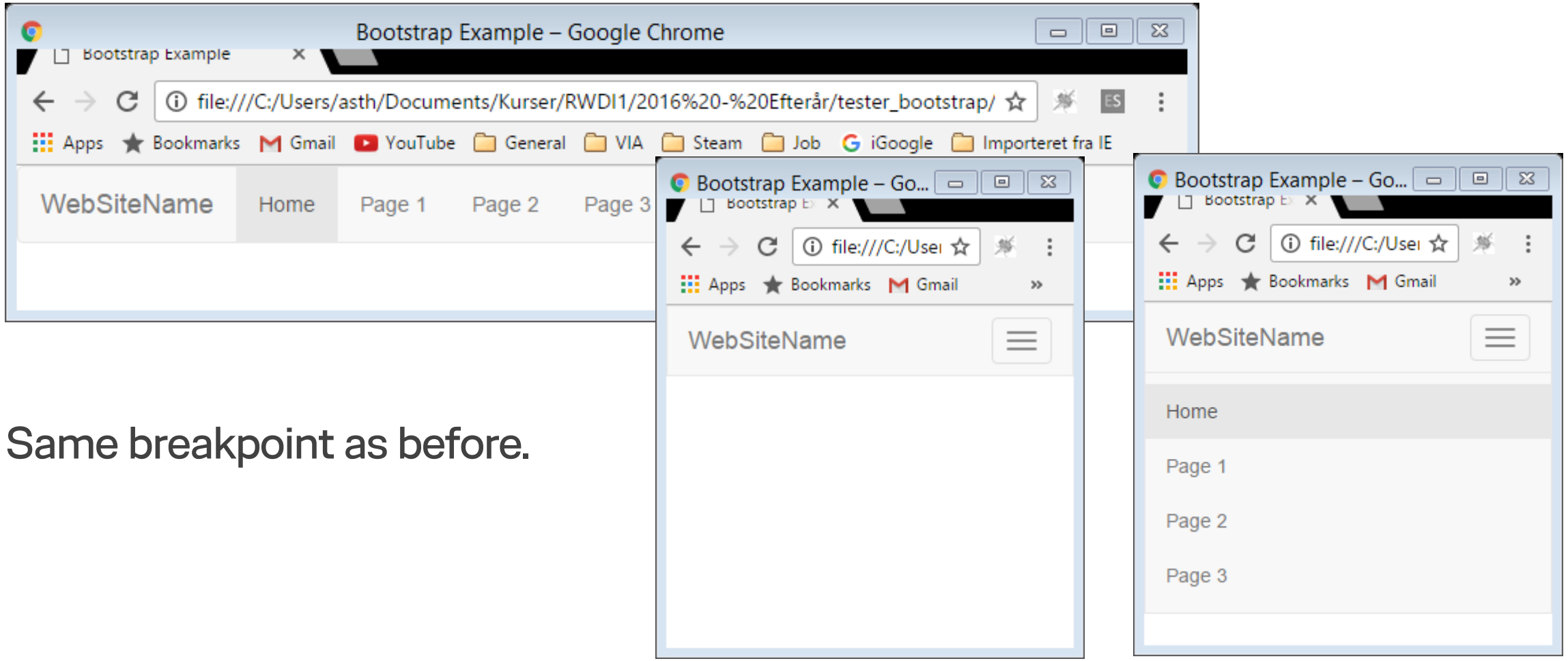
A button element is being placed inside the navigation bar header section.

Its data target is the id of the just added division element.

The button displays three icon bars.

Same code as before, except the unordered list element has been encapsulated in a division element, which has the appropriate Bootstrap classes added and the `id` attribute set.

Navigation Bar – Collapsible



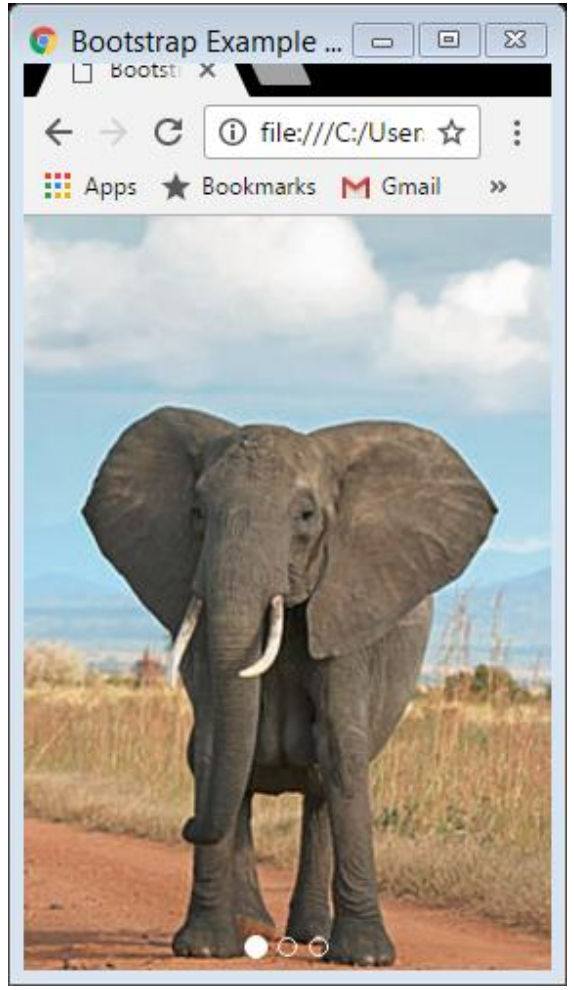
Same breakpoint as before.

Bootstrap - Carousel

Note:

Before starting coding your carousel, it is a good idea to use a image editing tool to ensure that all images have the same width and height.

At the very least they should have the same height and then with margin set to auto.



Bootstrap - Carousel

The outmost element of the carousel.

Choose an `id` value.

Add the `slide` class if you want the carousel to do a sliding transition between images.

```
<div class="container">
    <div id="myCarousel" class="carousel slide" data-ride="carousel">

        <!-- Wrapper for slides -->
        <div class="carousel-inner" role="listbox">
          <div class="item active"> <img src="images/elephant.jpg" alt="Dumbo"> </div>
          <div class="item"> <img src="images/tiger.jpg" alt="Tiger"> </div>
        </div>

        <!-- Indicators -->
        <ol class="carousel-indicators">
            <li data-target="#myCarousel" data-slide-to="0" class="active"></li>
            <li data-target="#myCarousel" data-slide-to="1"></li>
        </ol>
    </div>
</div>
```

Add all the images the carousel should cycle between.

One parent division needs to have the `active` class added.

Add one carousel indicator for each image.

The indicator with the class `active` added should correspond to the image whose parent division got the class as well.

The Result

Links

Images:

- http://www.w3schools.com/bootstrap/bootstrap_images.asp

Buttons:

- http://www.w3schools.com/bootstrap/bootstrap_buttons.asp

Navigation bar:

- http://www.w3schools.com/bootstrap/bootstrap_navbar.asp

Carousel:

- http://www.w3schools.com/bootstrap/bootstrap_carousel.asp

Exercise

- **Todays Exercise:**
  - Try out the features that Bootstrap provides some more. You are going to need the experience for the next compulsory assignment (and the midterm).