

Introdução às tecnologias Web - ITW

Aula 4 – Twitter bootstrap

Sumário

RWD _ Responsive Web Design

Twitter Bootstrap

Grid system

Visual Studio e o Bootstrap



Responsive web design (RWD)

Responsive web design (RWD) é uma abordagem de web design que visa a elaboração de sites que forneçam

- uma experiência de visualização e leitura fácil;
- navegação otimizada com um mínimo de redimensionamento;
- visão panorâmica e rolagem através de uma ampla gama de dispositivos que variam desde os telefones móveis passando pelos tablets e terminando em computador de mesa com monitores de diversas resoluções.

Twitter Bootstrap

Bootstrap é uma coleção de ferramentas para a criação de sites e aplicações web.

- Foi desenvolvido pela Twitter

Contém um conjunto de marcadores HTML e modelos de design baseados em CSS para tipografia, formulários, botões, navegação e outros componentes da interface

Possui ainda um conjunto de extensões JavaScript opcionais.



Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile first projects on the web.

12/10/2015
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One framework, every device.

Bootstrap easily and efficiently scales your websites and applications with a single code base, from phones to tablets to desktops with CSS media queries.

O pacote bootstrap

```
bootstrap/  
├── css/  
│   ├── bootstrap.css  
│   ├── bootstrap.min.css  
│   ├── bootstrap-theme.css  
│   └── bootstrap-theme.min.css  
├── js/  
│   ├── bootstrap.js  
│   └── bootstrap.min.js  
└── fonts/  
    ├── glyphicons-halflings-regular.eot  
    ├── glyphicons-halflings-regular.svg  
    ├── glyphicons-halflings-regular.ttf  
    └── glyphicons-halflings-regular.woff
```

} folhas de estilos

} scripts javascript

} fonte com ícones

Estrutura básica de um documento

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Bootstrap 101 Template</title>
  <!-- Bootstrap -->
  <link href="css/bootstrap.min.css" rel="stylesheet">
  <!-- HTML5 shim and Respond.js for IE8 support of HTML5 elements and media queries -->
  <!-- WARNING: Respond.js doesn't work if you view the page via file:// -->
  <!--[if lt IE 9]>
  <script src="https://oss.maxcdn.com/html5shiv/3.7.2/html5shiv.min.js"></script>
  <script src="https://oss.maxcdn.com/respond/1.4.2/respond.min.js"></script>
  <![endif]-->
</head>
<body>
  <h1>Hello, world!</h1>
  <!-- jQuery (necessary for Bootstrap's JavaScript plugins) -->
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.1/jquery.min.js"></script>
  <!-- Include all compiled plugins (below), or include individual files as needed -->
  <script src="js/bootstrap.min.js"></script>
</body>
```

The diagram illustrates the structure of an HTML document. Red dotted arrows point to the following elements:

- The `<meta name="viewport" content="width=device-width, initial-scale=1">` tag in the `<head>` section.
- The `<!-- Bootstrap -->` comment in the `<head>` section.
- The `<script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.1/jquery.min.js"></script>` tag in the `<body>` section.
- The `<script src="js/bootstrap.min.js"></script>` tag in the `<body>` section.

12/10/2015

Funcionalidades Bootstrap

Menus – desktop



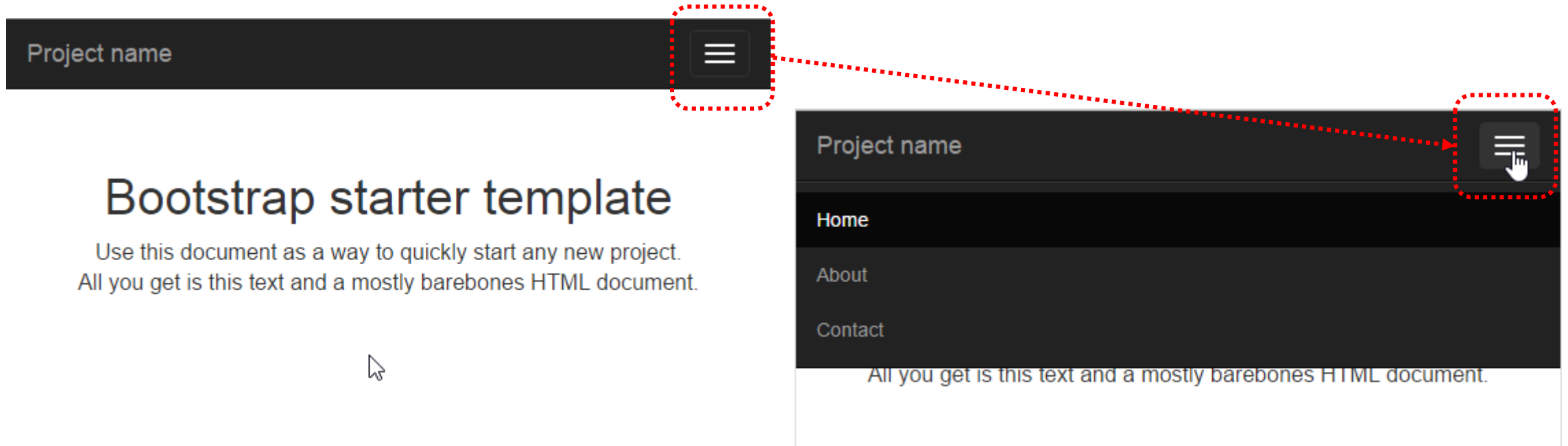
Bootstrap starter template

Use this document as a way to quickly start any new project.
All you get is this text and a mostly barebones HTML document.



Funcionalidades Bootstrap

Menus – mobile



Funcionalidades Bootstrap

Menus - código

```
<nav class="navbar navbar-inverse navbar-fixed-top" role="navigation">
  <div class="container">
    <div class="navbar-header">
      <button type="button" class="navbar-toggle collapsed" data-toggle="collapse"
        data-target="#navbar" aria-expanded="false" aria-controls="navbar">
        <span class="sr-only">Toggle navigation</span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
      </button>
      <a class="navbar-brand" href="#">Project name</a>
    </div>
    <div id="navbar" class="collapse navbar-collapse">
      <ul class="nav navbar-nav">
        <li class="active"><a href="#">Home</a></li>
        <li><a href="#about">About</a></li>
        <li><a href="#contact">Contact</a></li>
      </ul>
    </div><!--/.nav-collapse -->
  </div>
</nav>
```

<http://getbootstrap.com/examples/starter-template/#contact>

Funcionalidades Bootstrap

Grelhas para informação - conceitos

	Extra small devicesPhones ($<768\text{px}$)	Small devices Tablets ($\geq 768\text{px}$)	Medium devicesDesktops ($\geq 992\text{px}$)	Large devices Desktops ($\geq 1200\text{px}$)
Grid behavior	Horizontal at all times	Collapsed to start, horizontal above breakpoints		
Container width	None (auto)	750px	970px	1170px
Class prefix	.col-xs-	.col-sm-	.col-md-	.col-lg-
# of columns	12			
Column width	Auto	~62px	~81px	~97px
Gutter width	30px (15px on each side of a column)			
Nestable	Yes			
Offsets	Yes			
Column ordering	Yes			

Funcionalidades Bootstrap

Grelhas para informação - exemplos

Mixed: mobile, tablet, and desktop

<code>.col-xs-12 .col-sm-6 .col-lg-8</code>			<code>.col-xs-6 .col-lg-4</code>	
<code>.col-xs-6 .col-sm-4</code>	<code>.col-xs-6 .col-sm-4</code>		<code>.col-xs-6 .col-sm-4</code>	

Mixed: mobile, tablet, and desktop

<div><div><div>.col-xs-12.col-sm-6.col-lg-8</div></div></div>			<div><div><div>.col-xs-6.col-lg-4</div></div></div>	
<div><div><div>.col-xs-6.col-sm-4</div></div></div>	<div><div><div>.col-xs-6.col-sm-4</div></div></div>	<div><div><div>.col-xs-6.col-sm-4</div></div></div>		

<http://getbootstrap.com/examples/grid/>

Funcionalidades Bootstrap

Grelhas para informação - exemplos

Mixed: mobile, tablet, and desktop

col-xs-12 col-sm-6 col-lg-8

col-xs-6 col-lg-4

col-xs-6 col-sm-4

col-xs-6 col-sm-4

col-xs-6 col-sm-4

<http://getbootstrap.com/examples/grid/>

Funcionalidades Bootstrap

Grelhas para informação - exemplos

```
<body>
  <div class="container">
    <h3>Mixed: mobile, tablet, and desktop</h3>
    <p></p>
    <div class="row">
      <div class="col-xs-12 col-sm-6 col-lg-8">.col-xs-12 .col-sm-6 .col-lg-8</div>
      <div class="col-xs-6 col-lg-4">.col-xs-6 .col-lg-4</div>
    </div>
    <div class="row">
      <div class="col-xs-6 col-sm-4">.col-xs-6 .col-sm-4</div>
      <div class="col-xs-6 col-sm-4">.col-xs-6 .col-sm-4</div>
      <div class="col-xs-6 col-sm-4">.col-xs-6 .col-sm-4</div>
    </div>
  </div>

  (...)

</body>
```

<http://getbootstrap.com/examples/grid/>

Funcionalidades Bootstrap

Jumbotron - conceitos

Um elemento jumbotron ocupa toda a largura do browser.

Isso é conseguido através da especificação de um `<div>` com a classe "container-fluid".

```
<div class="container-fluid">  
  <div class="row">  
    ...  
  </div>  
</div>
```

Nos elementos anteriores o elemento `<div>` estava sempre dentro de uma classe "container".

Funcionalidades Bootstrap

Jumbotron – exemplos (desktop)

Project name

Email

Password

Sign in

Hello, world!

This is a template for a simple marketing or informational website. It includes a large callout called a jumbotron and three supporting pieces of content. Use it as a starting point to create something more unique.

Learn more »

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

View details »

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

View details »

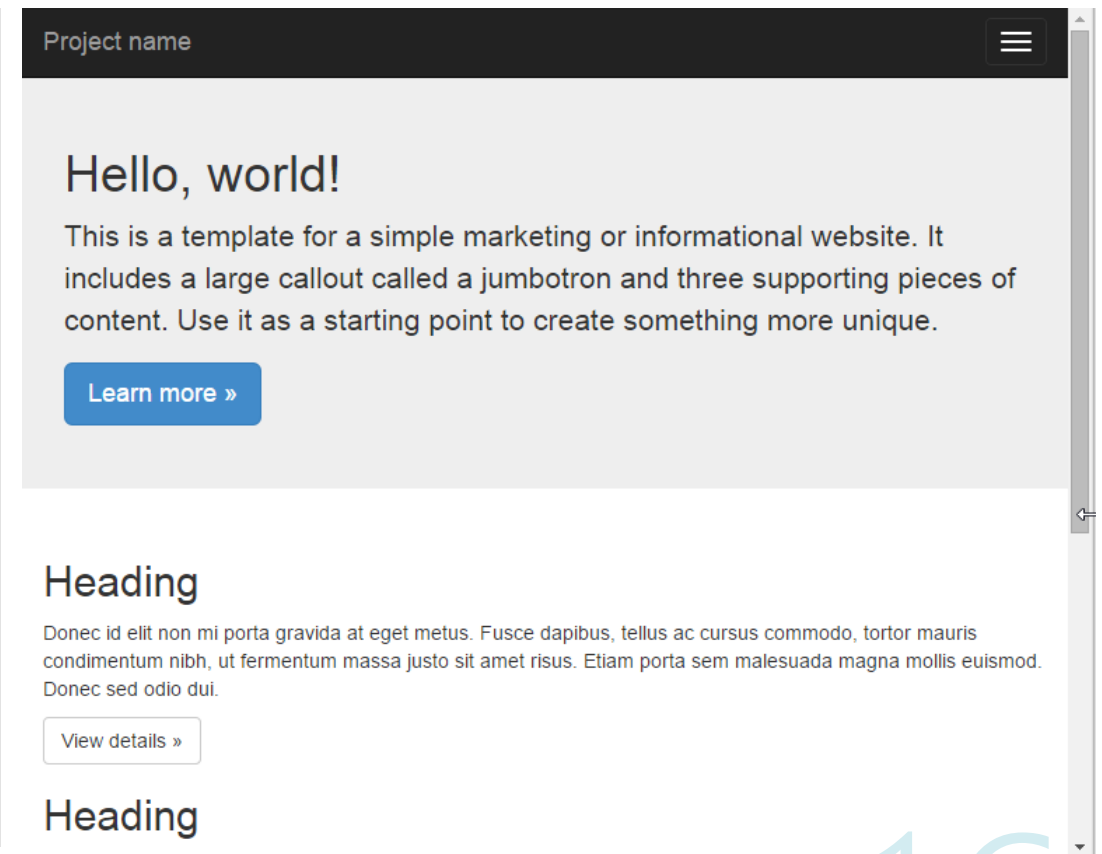
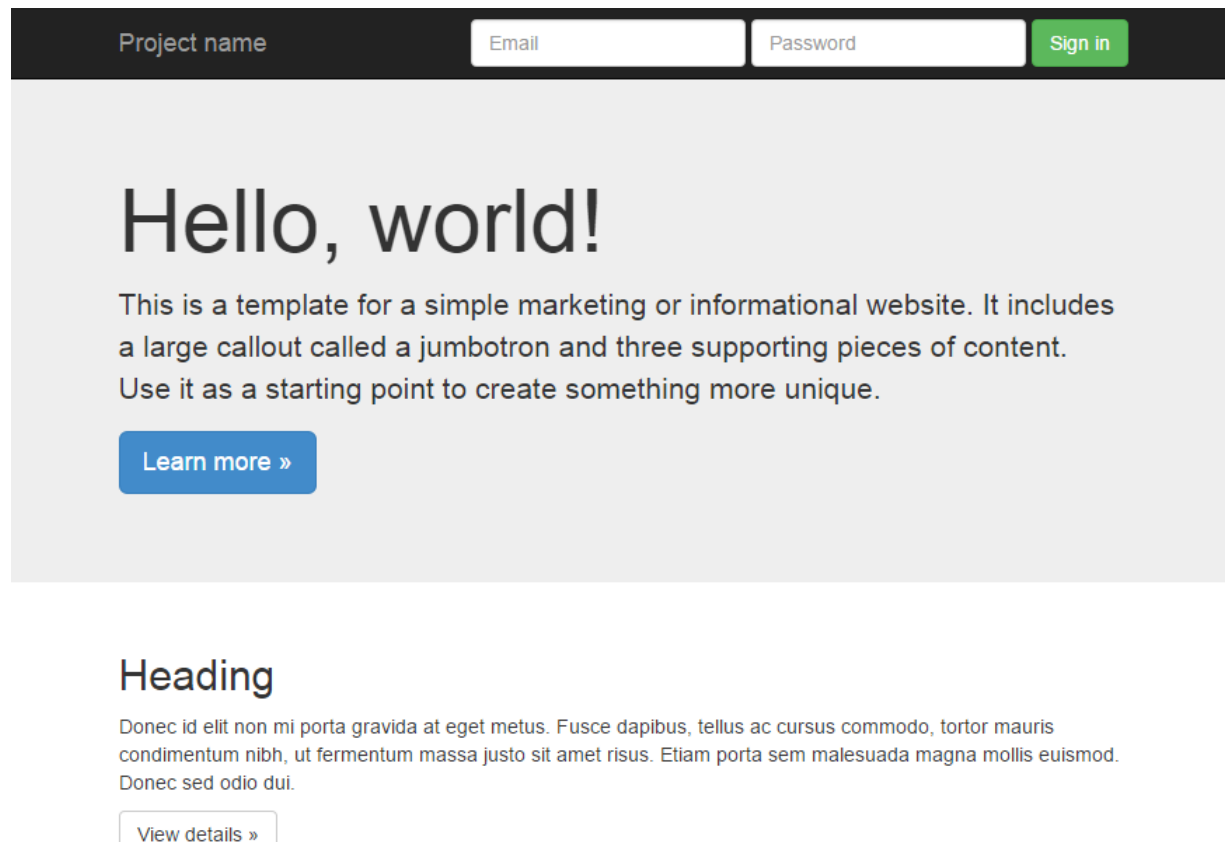
Heading

Donec sed odio dui. Cras justo odio, dapibus ac facilisis in, egestas eget quam. Vestibulum id ligula porta felis euismod semper. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus.

View details »

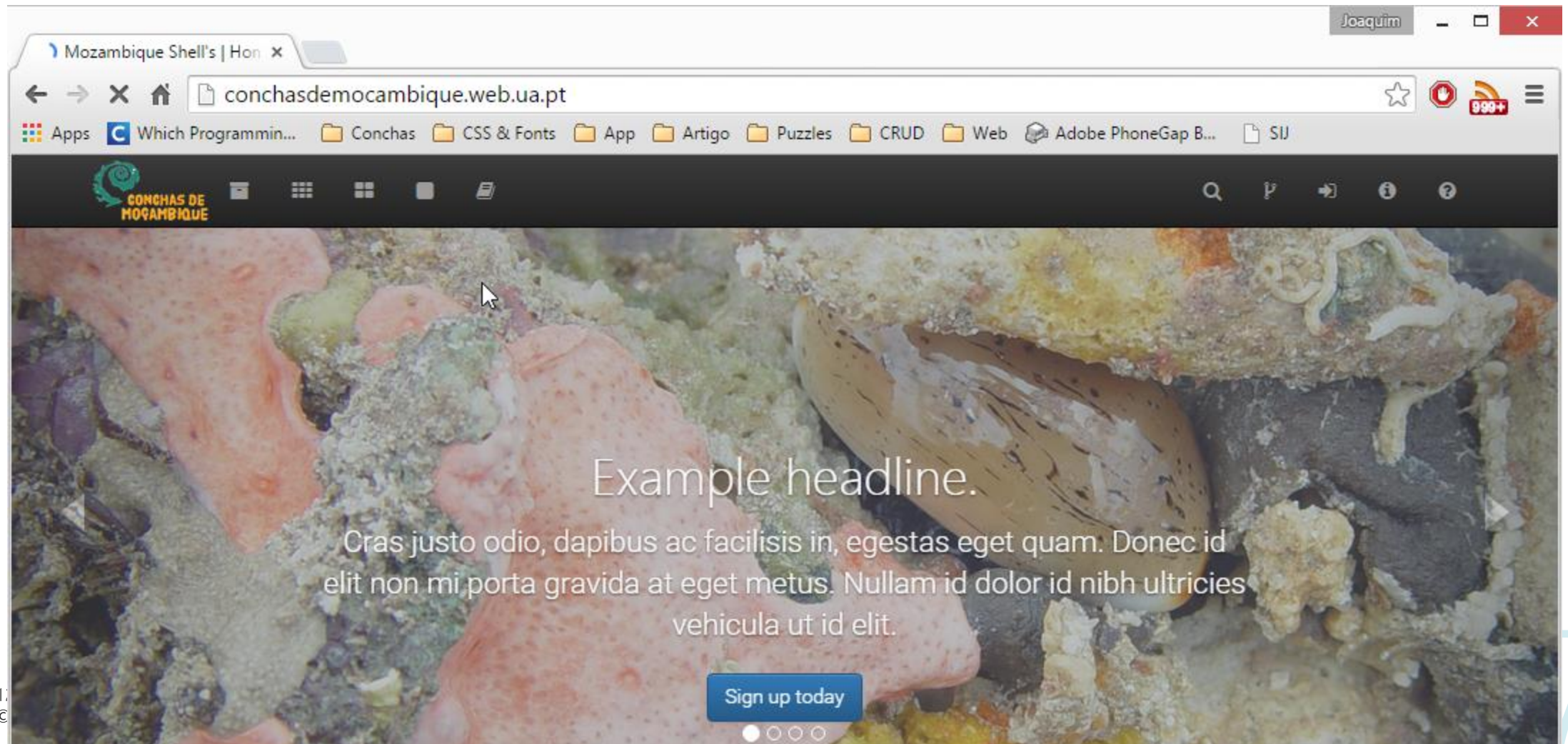
Funcionalidades Bootstrap

Jumbotron – exemplos (tablet | mobile)



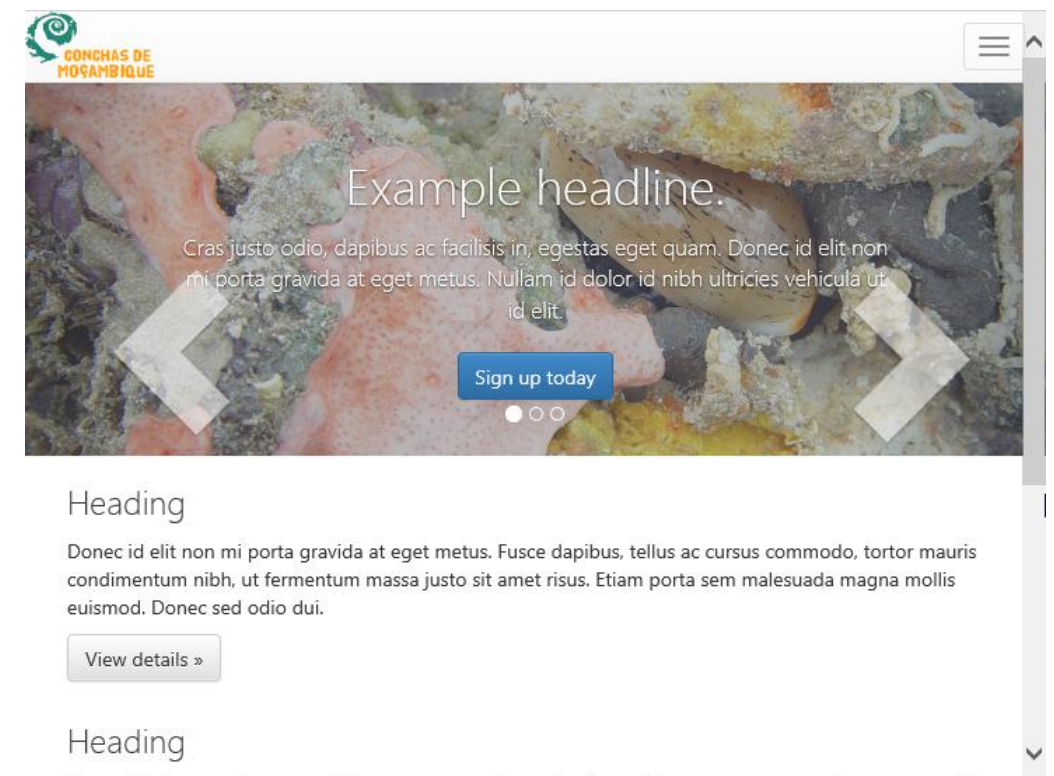
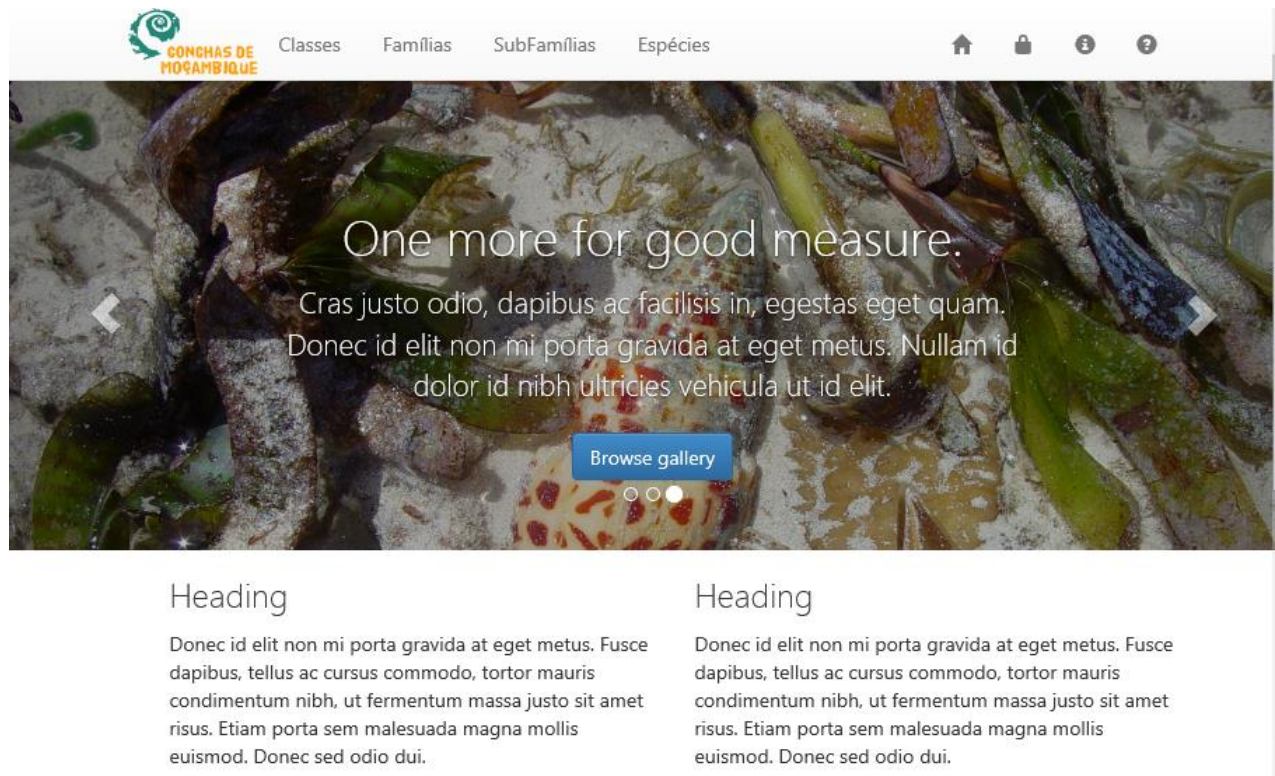
Funcionalidades Bootstrap

Jumbotron – exemplos (imagens)



Funcionalidades Bootstrap

Jumbotron – exemplos (imagens)



Funcionalidades Bootstrap

Tipos e tamanhos de letra

EXAMPLE

h1. Bootstrap heading Secondary text

h2. Bootstrap heading Secondary text

h3. Bootstrap heading Secondary text

h4. Bootstrap heading Secondary text

h5. Bootstrap heading Secondary text

h6. Bootstrap heading Secondary text

```
<h1>h1. Bootstrap heading <small>Secondary text</small></h1>
<h2>h2. Bootstrap heading <small>Secondary text</small></h2>
<h3>h3. Bootstrap heading <small>Secondary text</small></h3>
<h4>h4. Bootstrap heading <small>Secondary text</small></h4>
<h5>h5. Bootstrap heading <small>Secondary text</small></h5>
<h6>h6. Bootstrap heading <small>Secondary text</small></h6>
```

Copy

Funcionalidades Bootstrap

Tables

EXAMPLE

#	First Name	Last Name	Username
1	Mark	Otto	@mdo
2	Jacob	Thornton	@fat
3	Larry	the Bird	@twitter

```
<table class="table table-striped">  
  ...  
</table>
```

Copy

<http://getbootstrap.com/css/#tables>

Funcionalidades Bootstrap

Formulários

EXAMPLE

Email address

Password

File input

No file chosen

Example block-level help text here.

☐ Check me out

```
<form role="form">
  <div class="form-group">
    <label for="exampleInputEmail1">Email address</label>
    <input type="email" class="form-control" id="exampleInputEmail1"
      placeholder="Enter email">
  </div>
  <div class="form-group">
    <label for="exampleInputPassword1">Password</label>
    <input type="password" class="form-control" id="exampleInputPassword1"
      placeholder="Password">
  </div>
  <div class="form-group">
    <label for="exampleInputFile">File input</label>
    <input type="file" id="exampleInputFile">
    <p class="help-block">Example block-level help text here.</p>
  </div>
  <div class="checkbox">
    <label>
      <input type="checkbox"> Check me out
    </label>
  </div>
  <button type="submit" class="btn btn-default">Submit</button>
</form>
```

<http://getbootstrap.com/css/#forms>

Funcionalidades Bootstrap

Formulários

EXAMPLE

Email	<input type="text" value="Email"/>
Password	<input type="password" value="Password"/>
<input type="checkbox"/> Remember me	
<input type="button" value="Sign in"/>	

```
<form class="form-horizontal" role="form">
  <div class="form-group">
    <label for="inputEmail3" class="col-sm-2 control-label">Email</label>
    <div class="col-sm-10">
      <input type="email" class="form-control" id="inputEmail3"
        placeholder="Email">
    </div>
  </div>
  <div class="form-group">
    <label for="inputPassword3" class="col-sm-2 control-label">Password</label>
    <div class="col-sm-10">
      <input type="password" class="form-control" id="inputPassword3"
        placeholder="Password">
    </div>
  </div>
  <div class="form-group">
    <div class="col-sm-offset-2 col-sm-10">
      <div class="checkbox">
        <label>
          <input type="checkbox"> Remember me
        </label>
      </div>
    </div>
  </div>
  <div class="form-group">
    <div class="col-sm-offset-2 col-sm-10">
      <button type="submit" class="btn btn-default">Sign in</button>
    </div>
  </div>
</form>
```

Funcionalidades Bootstrap

Botões – códigos de cor

EXAMPLE



<http://getbootstrap.com/css/#buttons>

```
<!-- Standard button -->
<button type="button" class="btn btn-default">Default</button>

<!-- Provides extra visual weight and identifies the primary action in a set of buttons -->
<button type="button" class="btn btn-primary">Primary</button>

<!-- Indicates a successful or positive action -->
<button type="button" class="btn btn-success">Success</button>

<!-- Contextual button for informational alert messages -->
<button type="button" class="btn btn-info">Info</button>

<!-- Indicates caution should be taken with this action -->
<button type="button" class="btn btn-warning">Warning</button>

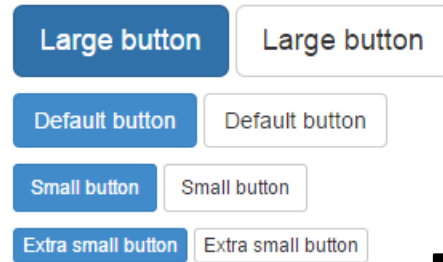
<!-- Indicates a dangerous or potentially negative action -->
<button type="button" class="btn btn-danger">Danger</button>

<!-- Deemphasize a button by making it look like a link while maintaining button behavior -->
<button type="button" class="btn btn-link">Link</button>
```

Funcionalidades Bootstrap

Botões - tamanho

EXAMPLE

























```
<p>
  <button type="button" class="btn btn-primary btn-lg">Large button</button>
  <button type="button" class="btn btn-default btn-lg">Large button</button>
</p>
<p>
  <button type="button" class="btn btn-primary">Default button</button>
  <button type="button" class="btn btn-default">Default button</button>
</p>
<p>
  <button type="button" class="btn btn-primary btn-sm">Small button</button>
  <button type="button" class="btn btn-default btn-sm">Small button</button>
</p>
<p>
  <button type="button" class="btn btn-primary btn-xs">Extra small button</button>
  <button type="button" class="btn btn-default btn-xs">Extra small button</button>
</p>
```


Funcionalidades Bootstrap

Glyphicons

<http://getbootstrap.com/components/>

 glyphicon glyphicon- asterisk	 glyphicon glyphicon-plus	 glyphicon glyphicon-euro	 glyphicon glyphicon- minus	 glyphicon glyphicon- cloud	 glyphicon glyphicon- envelope	 glyphicon glyphicon- pencil	 glyphicon glyphicon- glass
 glyphicon glyphicon- music	 glyphicon glyphicon- search	 glyphicon glyphicon- heart	 glyphicon glyphicon- star	 glyphicon glyphicon- star- empty	 glyphicon glyphicon- user	 glyphicon glyphicon- film	 glyphicon glyphicon- th- large
 glyphicon glyphicon-th	 glyphicon glyphicon- th- list	 glyphicon glyphicon- ok	 glyphicon glyphicon- remove	 glyphicon glyphicon- zoom-in	 glyphicon glyphicon- zoom-out	 glyphicon glyphicon- off	 glyphicon glyphicon- signal
 glyphicon glyphicon-gear	 glyphicon glyphicon-terminal	 glyphicon glyphicon-upward	 glyphicon glyphicon-download	 glyphicon glyphicon-clock	 glyphicon glyphicon-hourglass	 glyphicon glyphicon-downward	 glyphicon glyphicon-refresh

Funcionalidades Bootstrap

Dropdown lists

EXAMPLE

Dropdown ▼

Action
Another action
Something else here
Separated link

```
<div class="dropdown">
  <button class="btn btn-default dropdown-toggle" type="button" id="dropdownMenu1" data-toggle="dropdown">
    Dropdown
    <span class="caret"></span>
  </button>
  <ul class="dropdown-menu" role="menu" aria-labelledby="dropdownMenu1">
    <li role="presentation"><a role="menuitem" tabindex="-1" href="#">Action</a></li>
    <li role="presentation"><a role="menuitem" tabindex="-1" href="#">Another action</a></li>
    <li role="presentation"><a role="menuitem" tabindex="-1" href="#">Something else here</a></li>
    <li role="presentation"><a role="menuitem" tabindex="-1" href="#">Separated link</a></li>
  </ul>
</div>
```

Funcionalidades Bootstrap

Tabs

EXAMPLE

Home

Profile

Messages

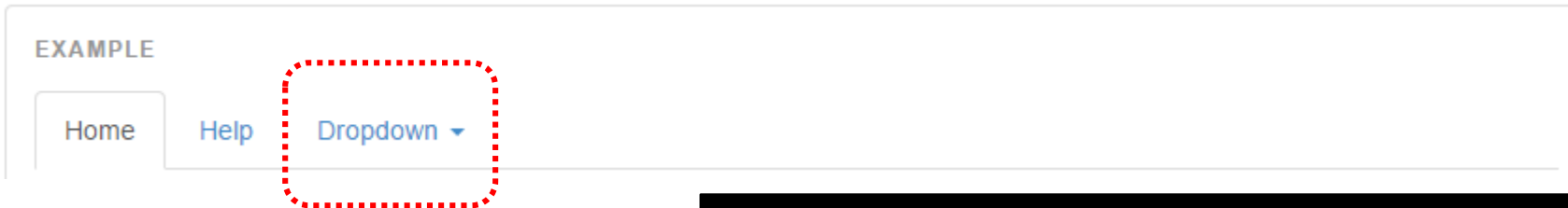
```
<ul class="nav nav-tabs" role="tablist">
  <li role="presentation" class="active">
    <a href="#tab-1" role="tab" data-toggle="tab">Home</a></li>
  <li role="presentation">
    <a href="#tab-2" role="tab" data-toggle="tab">Profile</a></li>
  <li role="presentation">
    <a href="#tab-3" role="tab" data-toggle="tab">Messages</a></li>
</ul>

<div class="tab-content" style="min-height: 400px;">
  <div class="tab-pane fade in active" id="tabs-1">
    ...
  </div>
  <div class="tab-pane fade" id="tabs-2">
    ...
  </div>
  <div class="tab-pane fade" id="tabs-3">
    ...
  </div>
</div>
```

<http://getbootstrap.com/components/#nav>

Funcionalidades Bootstrap

Tabs c/ Dropdown lists



```
<ul class="nav nav-tabs" role="tablist">
  <li role="presentation" class="dropdown">
    <a class="dropdown-toggle" data-toggle="dropdown" href="#">
      Dropdown <span class="caret"></span>
    </a>
    <ul class="dropdown-menu" role="menu">
      ...
    </ul>
  </li>
  ...
</ul>
```

Funcionalidades Bootstrap

Labels

EXAMPLE

Default Primary Success Info Warning Danger

```
<span class="label label-default">Default</span>  
<span class="label label-primary">Primary</span>  
<span class="label label-success">Success</span>  
<span class="label label-info">Info</span>  
<span class="label label-warning">Warning</span>  
<span class="label label-danger">Danger</span>
```

Copy

<http://getbootstrap.com/components/#labels>

Funcionalidades Bootstrap

Badges

EXAMPLE

Inbox **42**

Messages **4**

```
<a href="#">Inbox <span class="badge">42</span></a>
```

```
<button class="btn btn-primary" type="button">  
  Messages <span class="badge">4</span>  
</button>
```

Copy

<http://getbootstrap.com/components/#badges>

Funcionalidades Bootstrap

Alert boxes

<http://getbootstrap.com/components/#alerts>

EXAMPLE

Well done! You successfully read this important alert message.

Heads up! This alert needs your attention, but it's not super important.

Warning! Better check yourself, you're not looking too good.

Oh snap! Change a few things up and try submitting again.

```
<div class="alert alert-success" role="alert">...</div>
<div class="alert alert-info" role="alert">...</div>
<div class="alert alert-warning" role="alert">...</div>
<div class="alert alert-danger" role="alert">...</div>
```

Copy

Funcionalidades Bootstrap

Panels

EXAMPLE

Panel title

Panel content

Panel title

Panel content

Panel title

Panel content

Panel title

Panel content

Panel title

Panel content

```
<div class="panel panel-primary">...</div>  
<div class="panel panel-success">...</div>  
<div class="panel panel-info">...</div>  
<div class="panel panel-warning">...</div>  
<div class="panel panel-danger">...</div>
```

<http://getbootstrap.com/components/#panels>

Usando o bootstrap com o Visual Studio

Recent .NET Framework 4.5 Sort by: Default Search Installed Templates (Ctrl+E)

Installed

- Templates
 - Visual Basic
 - Visual C#
 - Store Apps
 - Windows Desktop
 - Web
 - Visual Studio 2012
 - Office/SharePoint
 - Cloud
 - LightSwitch
 - Reporting
 - Silverlight
 - Test
 - WCF
 - Workflow

Online

Name: ITW-Projeto 1

Location: c:\users\joaquim sousa pinto\documents\visual studio 2013\Projects Browse...

Solution name: ITW-Projeto 1 ☒ Create dir ☐ Add to so

ASP.NET Web Application Visual C#

[Click here to go online and find templates.](#)

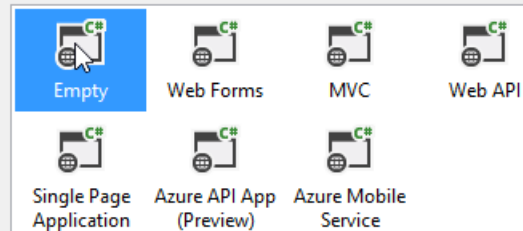
Type: Visual C#

A project template for creating ASP.NET applications. You can create ASP.NET Web Forms, MVC, or Web API applications and add many other features in ASP.NET.

☐ Add Application Insights to Project

Microsoft recommends adding Application Insights telemetry to help you understand and optimize application performance.

Select a template:



An empty project template for creating ASP.NET applications. This template does not have any content in it.

[Learn more](#)

Change Authentication

Authentication: **No Authentication**

Microsoft Azure

☒ Host in the cloud

Web App

[Manage Subscriptions](#)

Add folders and core references for:

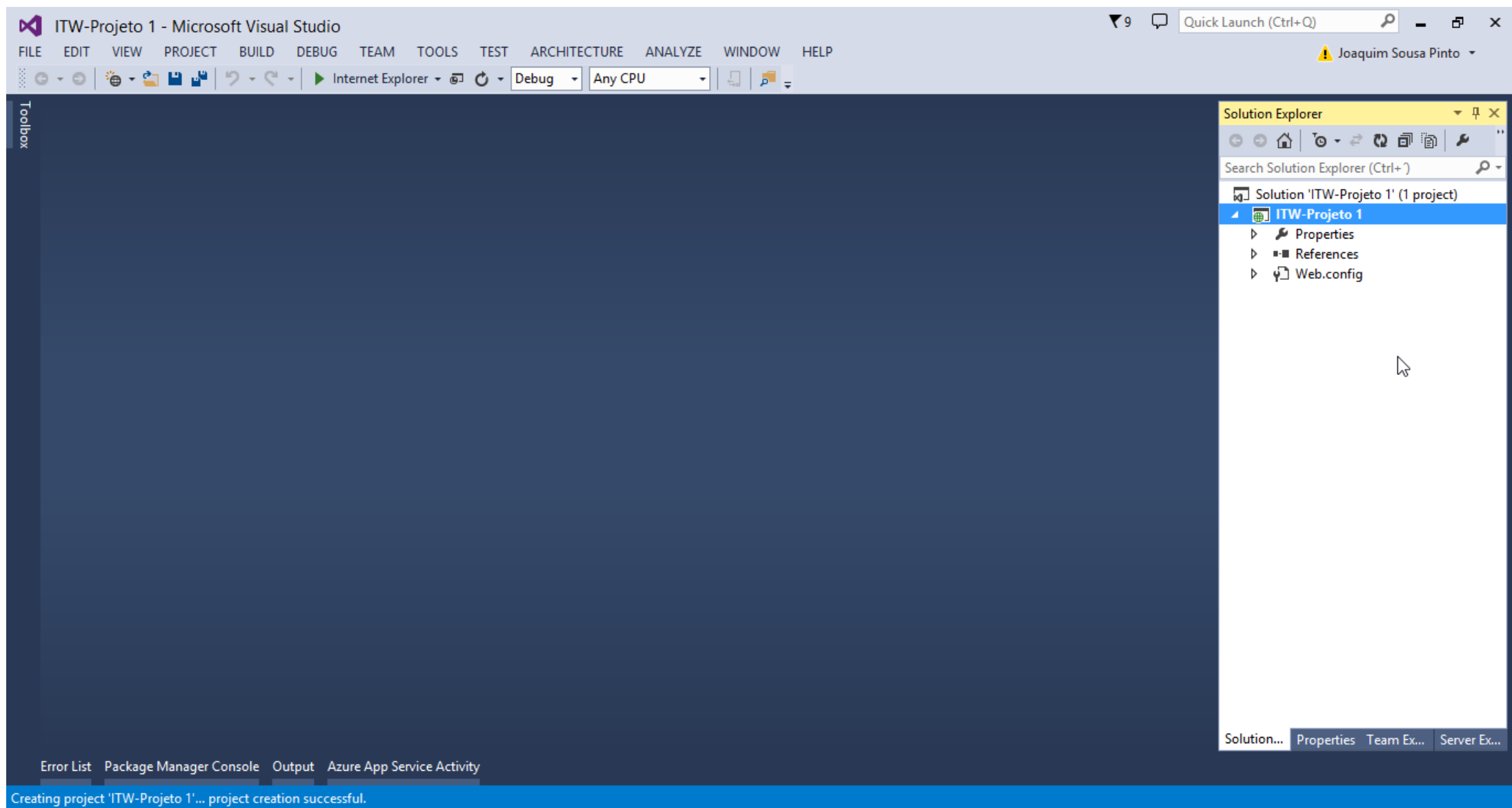
☐ Web Forms ☐ MVC ☐ Web API

☐ Add unit tests

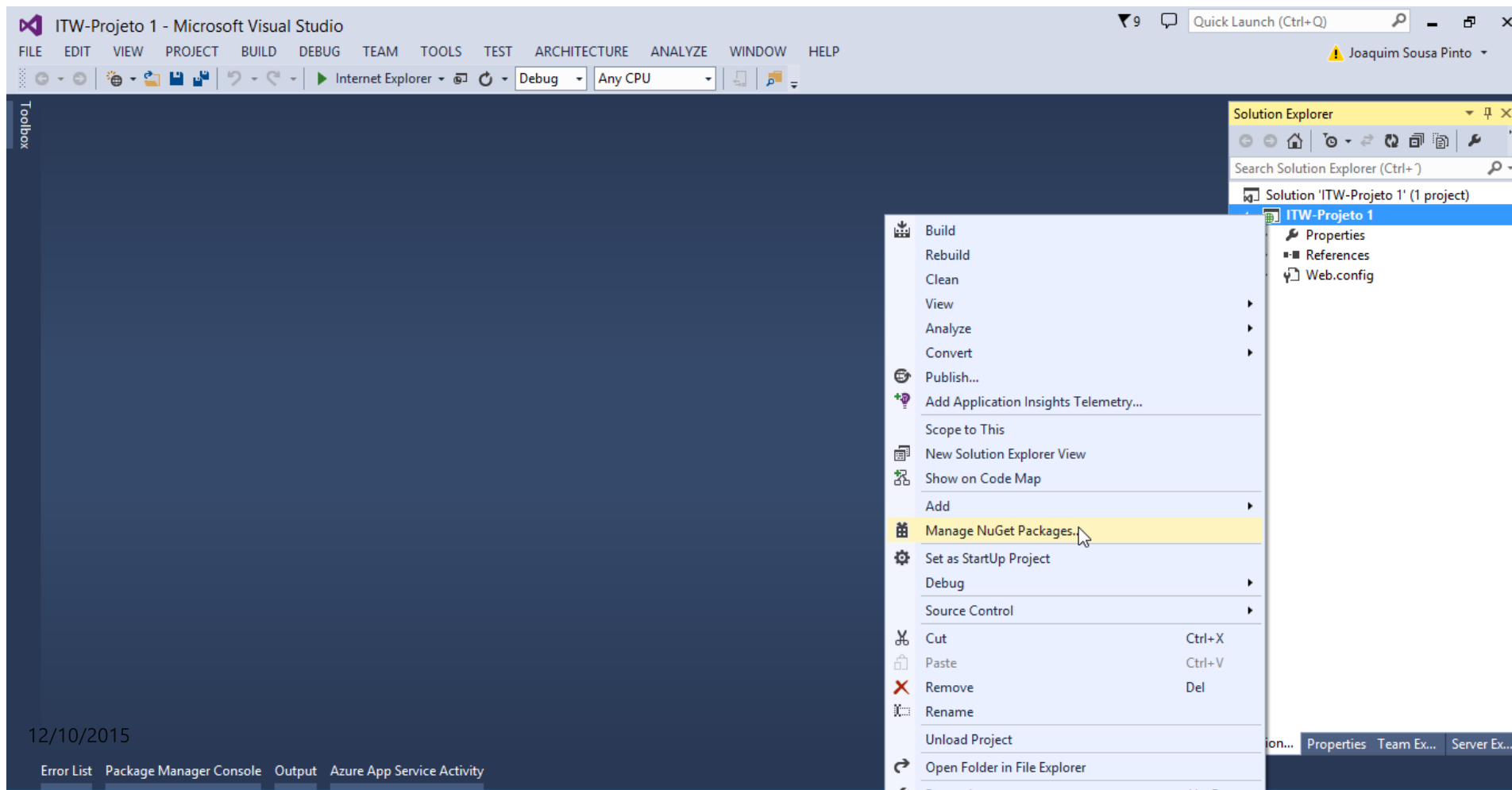
Test project name: ITW-Projeto 1.Tests

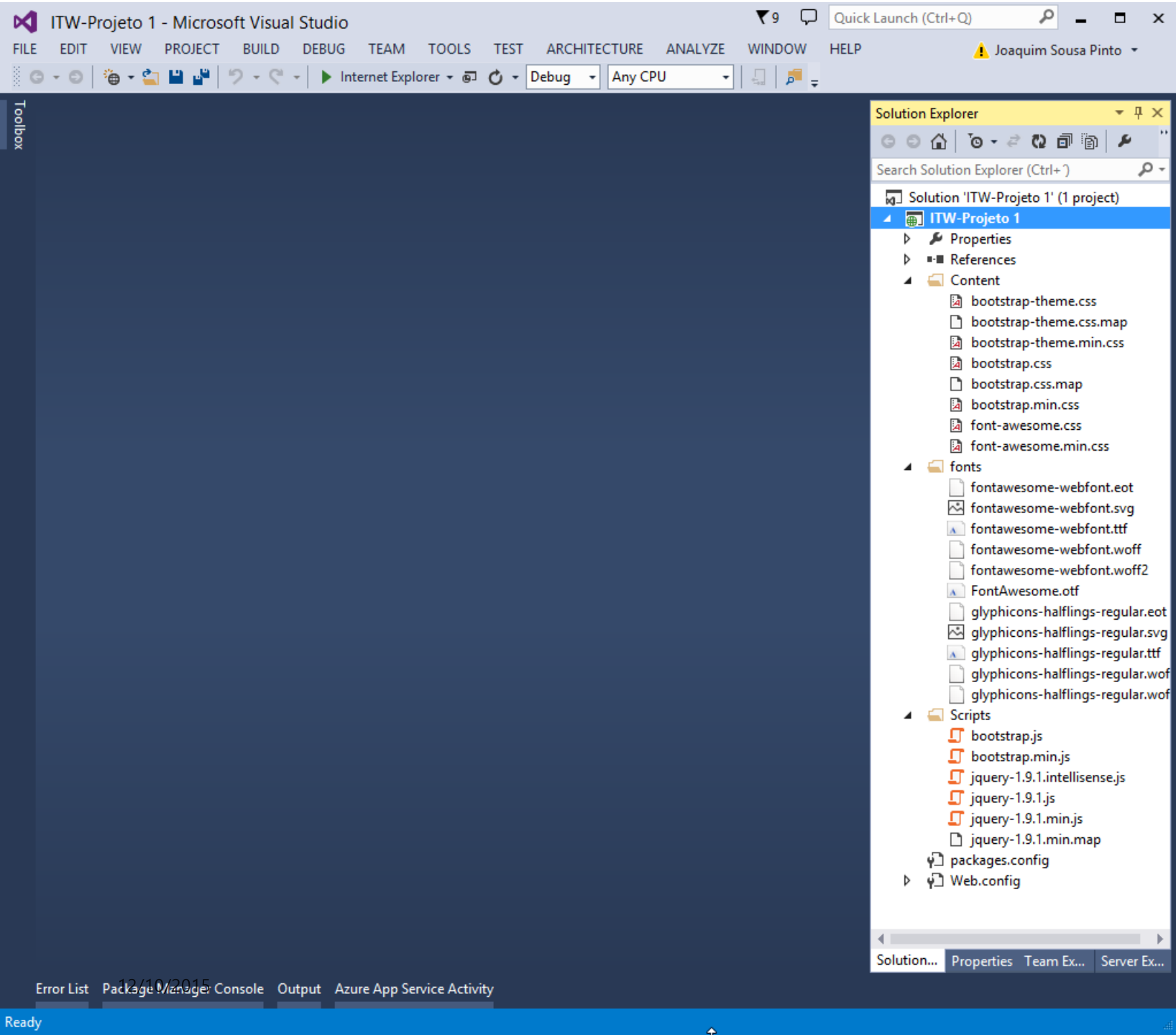
OK

Cancel



Adicionado packages ao projeto





Packages adicionados:

- Bootstrap
 - jQuery
- Font Awesome

Font Awesome, the iconic font and CSS toolkit

Want to add your own icon? Check out **Fonticons**, from the maker of Font Awesome. [Gimme Some!](#)

Font Awesome

Home What's New Get Started Icons ▾ Examples ▾ Community License Blog

Font Awesome

THE ICONIC FONT AND CSS TOOLKIT


[Download](#)


Version 4.4.0 · [GitHub Project](#) · [Old 3.2.1 Docs](#) · Created by [Dave Gandy](#)


Enter your email address... [Subscribe to Font Awesome Updates](#)

[Star](#) 36,600 [Fork](#) 6,072 [Follow @fontawesome](#) 23K followers [Tweet](#) 4,810

Font Awesome gives you scalable vector icons that can instantly be customized — size, color, drop shadow, and anything that can be done with the power of CSS.

**One Font, 585 Icons**
In a single collection, Font Awesome is a

**No JavaScript Required**
Fewer compatibility concerns because Font

**Infinite Scalability**
Scalable vector graphics means every icon

Exercício

Crie uma aplicação web destinada à presença institucional de uma empresa constituída por 3 páginas principais:

- * Página de entrada

Jumbotron com 3 produtos da empresa (em imagem);

Três notícias principais

- * Acerca da empresa

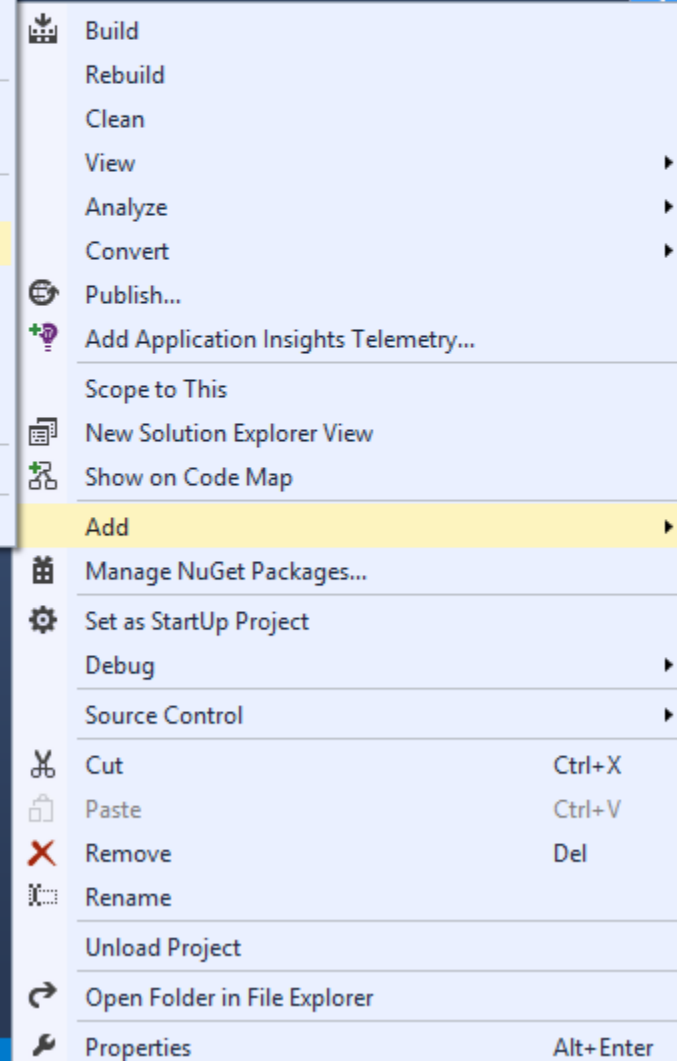
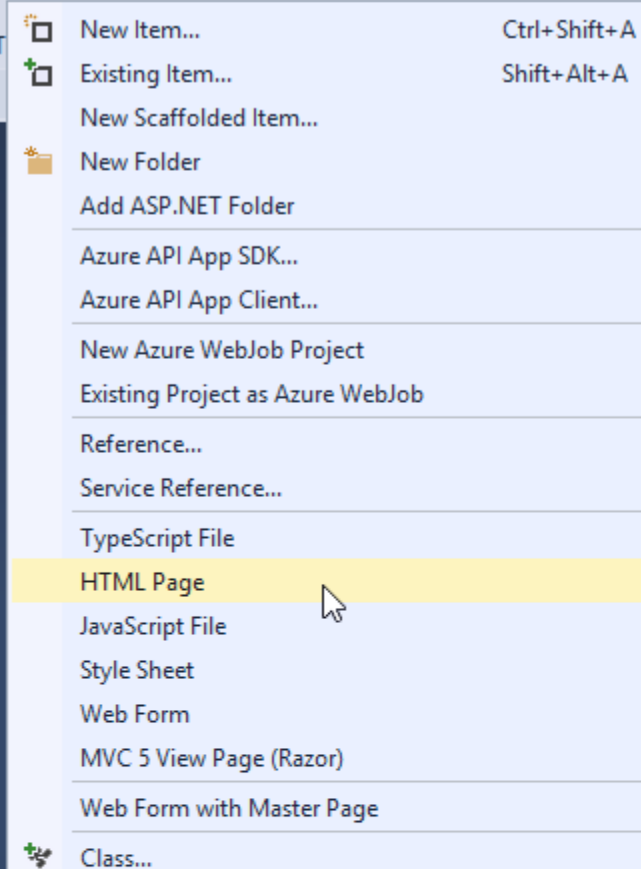
Página com uma lista de produtos e uma pequena descrição de cada um deles;

- * Contactos

-oOo-

Pesquise e investigue as facilidades do Bootstrap de modo a melhorar a interface e tirar as potencialidades todas;

Não se esqueça que a interface deve ser moldável aos diversos tipos de dispositivos.



Solution Explorer

Search Solution Explorer (Ctrl+)

Solution 'ITW-Projeto 1' (1 project)

ITW-Projeto 1

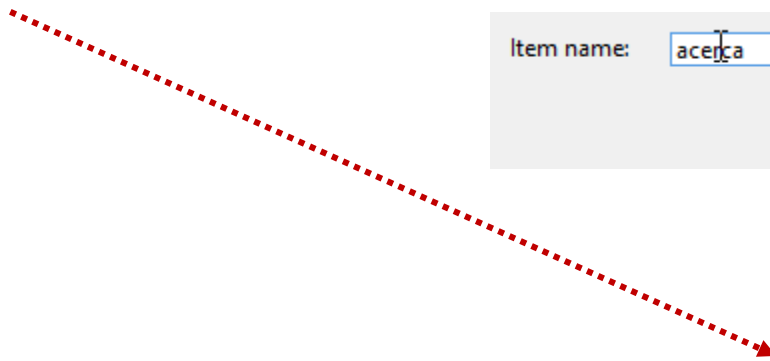
- Properties
- References
- Content
- fonts
- Scripts
- packages.config
- Web.config

Criando as 4 páginas pedidas

Item name:

Item name:

Item name:



Resultado inicial (esperado!)

