HTML5
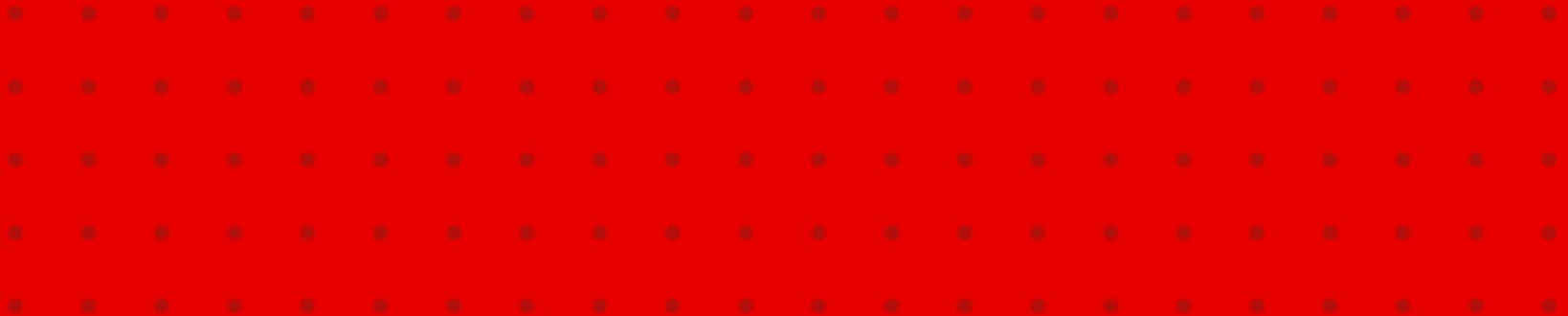
HTML

1991 HTML
1994 HTML 2
1996 CSS 1 + JavaScript
1997 HTML 4
1998 CSS 2
2000 XHTML 1
2002 Tableless Web Design
2005 AJAX
2009 HTML5

HTML

HTML stands for Hyper Text Markup Language.

HTML is a markup language and it is a set of markup tags.

HTML markup tags are called HTML tags.

HTML tags are keywords surrounded by angle brackets: <html>

It should have one start and end tag. <html></html>
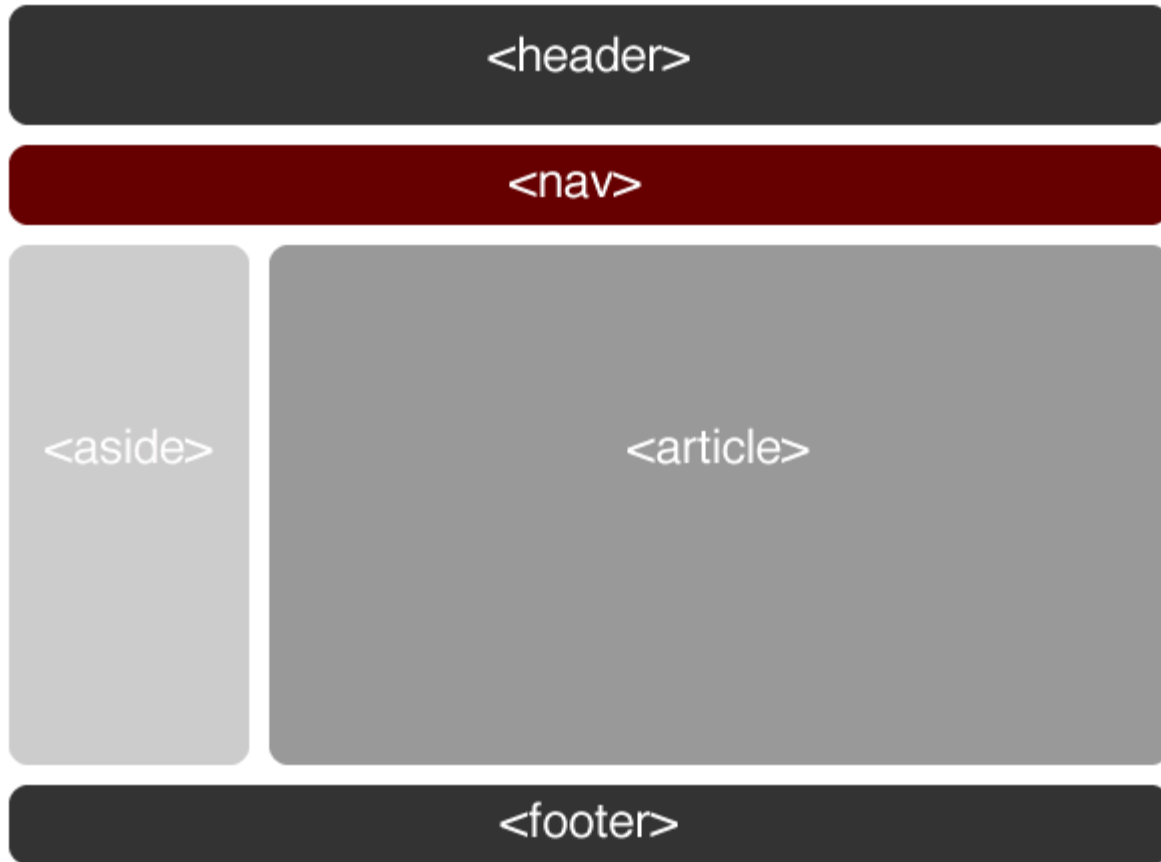
To edit the HTML, NOTEPAD is enough.

We save an HTML file, either the .htm or the .html file extension.

HTML Document Structure

```html
<!DOCTYPE html>
<html>
<head>
    <title>Title of the document</title>
    <!-- Styles and scripts-->
</head>
<body>
    Content of the document..
</body>
</html>
```

Section document

HTML4

```html
<body>
    <div id="header">...</div>
    <div id="nav">...</div>
    <div id="article">
            <div id="section"></div>
    </div>
    <div id="aside">...</div>
    <div id="footer">...</div>
</body>
```

HTML5

```
<body>
    <header>...</header>
    <nav>...</nav>
    <article>
            <section></section>
    </article>
    <aside>...</aside>
    <footer>...</footer>
</body>
```

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Exercise

Create a html page using the HTML5 structure.

Use: header, nav, article, section and footer. This page will be used t show a list of hotels.

Tags & Elements

HTML element is defined by a starting tag. If the element contains other content, it ends with a closing tag.

```
<h1> is a tag but  <h1>This is a heading</h1>
```

Attributes

HTML elements can have attributes that provide additional information about an element.

Are always specified in the start tag like: name="value"

```
<body style="background-color:#ff0000;">

        <p title=About W3Schools>
```

Links

A hyperlink is a text or an image you can click on, and jump to another document.

Are defined with the tag **\<a\>**

```
<a href="http://www.html.net/">Here is a link </a>
```

Using the **target** attribute we can specify where to open the linked

page/document

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Images

<img> tag is empty, it contains attributes only, and does not have a closing tag.

```
<img src="images/logo.png" alt="The icon cannot be
displayed"/>
```

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Lists

Unordered

```
<ul>
    <li>Coffee</li>
    <li>Tea</li>
    <li>Milk</li>
</ul>
```

- Coffee
- Tea
- Milk

Ordered

```
<ol>
    <li>Coffee</li>
    <li>Tea</li>
    <li>Milk</li>
</ol>
```

1. Coffee
2. Tea
3. Milk

Div vs Span

span element is in-line

div element is block-line

Tables

```html
<table>
    <tr>
        <th>Header1</th>
        <th>Header2</th>
    </tr>
    <tr>
        <td>Row 1, cell 1</td>
        <td>Row 1, cell 2</td>
    </tr>
    <tr>
        <td>Row 1, cell 1</td>
        <td>Row 1, cell 2</td>
    </tr>
</table>
```

Exercise

Create a table to display a list of hotels. The table will have the following columns : name, address, city, site, rooms, stars.

Forms

```html
<form method="POST/GET" action="serverUrl">
<label for="name">Name</label>
<input type="text" id="name" maxlength="20" required autofocus/>
<label for="name">Address</label>
<input type="text" id="address" required />
<label for="name">Email</label>
<input type="email" id="email"/>
<label for="age">Age</label>
<input type="number" id="age" min="5" max="50" />
<input type="submit">
</form>
```

HTML4

- Text

- Password

- Submit

- Radio

- Checkbox

- Button

HTML5

Number

Email

Url

Tel

Range

Search

Color

Date

...

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HTML Validation

- Disable
- Maxlength
- Readonly
- Value
- Size

Step

Pattern

Min

Max

Exercise

Create a page to add a hotel with fields: name, address, city, email, phone, site, rooms no, stars no. Page structure will be similar to the one created to display the list of hotels. Use HTML5 input types and validations.

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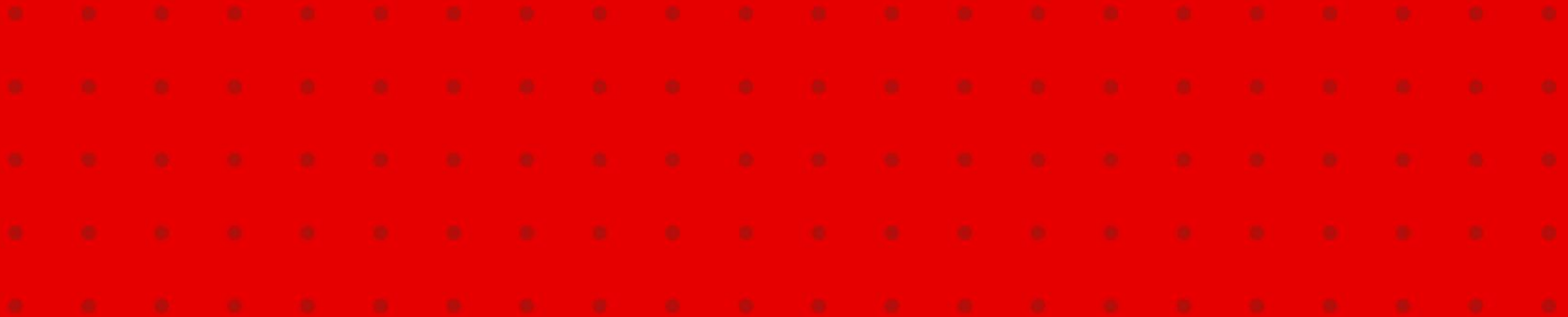
Questions?
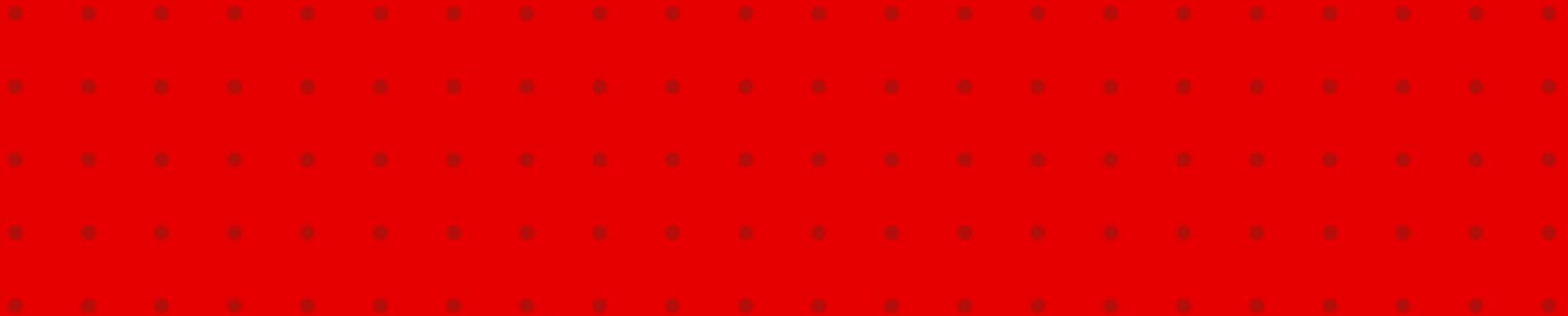
Exercise

Add to hotel list page two more sections:

- Search hotel form: city, check-in and data check-out date;

- "Last minute deals" with: hotel name, hotel picture and discount;

Add to aside a list with links in order to browse the 3 sections.

Add navigation menu to add hotel page.

CSS3

What is CSS?

- **CSS** stands for **C**ascading **S**tyle **S**heets

- CSS defines **how HTML elements are to be displayed**

- **3 types: Internal, External and Inline**

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How to add CSS

Inline

```
<h1 style="color:red;margin-left:40px;">This is a heading.</h1>
```

Internal Style Sheet

```
<head>
    <style >
        body{
            background-color:linen;
        }
        h1{
            color:red;
            margin-left:40px;
        }
    </style>
</head>
```

External Style Sheet

```
<head>
 <link rel="stylesheet" type="text/css" href="style.css">
</head>
```

Element selector

```html
<p> First paragraph</p>
<p> Another paragraph</p>
```

```css
p{
    font-size: 15px;
    color:red;
}
```

Class selector

```html
<h1 class="parag">Selectors exemple</h1>
<p class="parag"> Third paragraph</p>
```

```css
.parag{
    color: green;
}
```

Id selector

```html
<p> First paragraph</p>
<p id="colorParag"> Colored paragraph</p>
```

```css
#colorParag{
    color:blue;
}
```

Grouping Selectors

```css
h1{
    font-style: italic;
}
h2{
    font-style: italic;
}
p{
    font-style: italic;
}
```

```css
h1, h2, p{
    font-style: italic;
}
```

Nested Tags

descendant selector

```
div p {
    background-color: yellow;
}
```

child selector

```
div > p {
    background-color: yellow;
}
```

adjacent sibling selector

```
div + p {
    background-color: yellow;
}
```

general sibling selector

```
div ~ p {
    background-color: yellow;
}
```

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Pseudo Classes

A pseudo-class is used to define a special state of an element

```css
/* unvisited link */
a:link {
    color: #FF0000;
}

/* visited link */
a:visited {
    color: #00FF00;
}

/* mouse over link */
a:hover {
    color: #FF00FF;
}

/* selected link */
a:active {
    color: #0000FF;
}
```
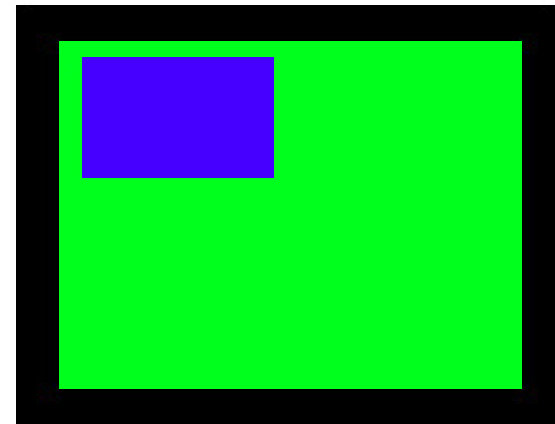
```css
p:first-child {
    color: blue;
}
```

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Static Positioning

Elements are positioned static by default. A static positioned element is always positioned according to the normal flow of the page.
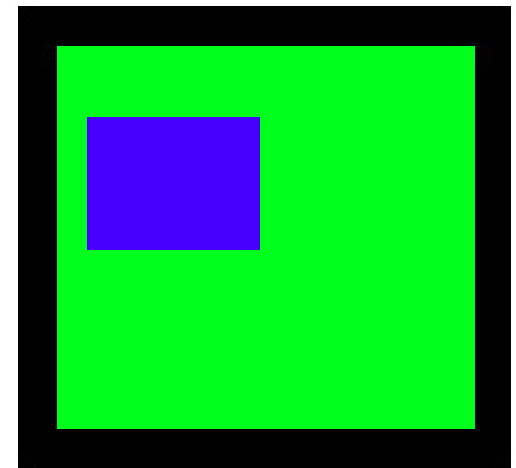

normal position

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Relative Positioning

A relative positioned element is positioned relative to its normal position
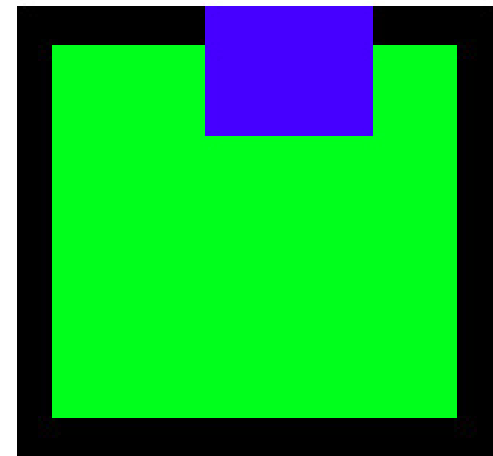
position: relative;

position: relative;
top: 20px;

Absolute Positioning

An absolute position element is positioned relative to the first parent element that has a position other than static. If no such element is found, the containing block is <html>
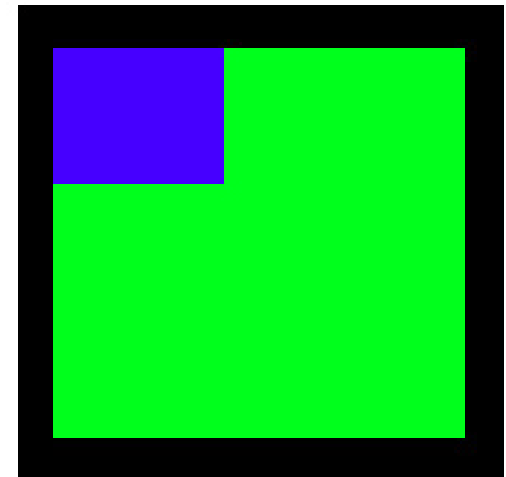
position: absolute;

position: absolute;
left: 200px;

Fixed Positioning

Element is positioned relative to the browser window, and will not move even if the window is scrolled.

position: fixed;
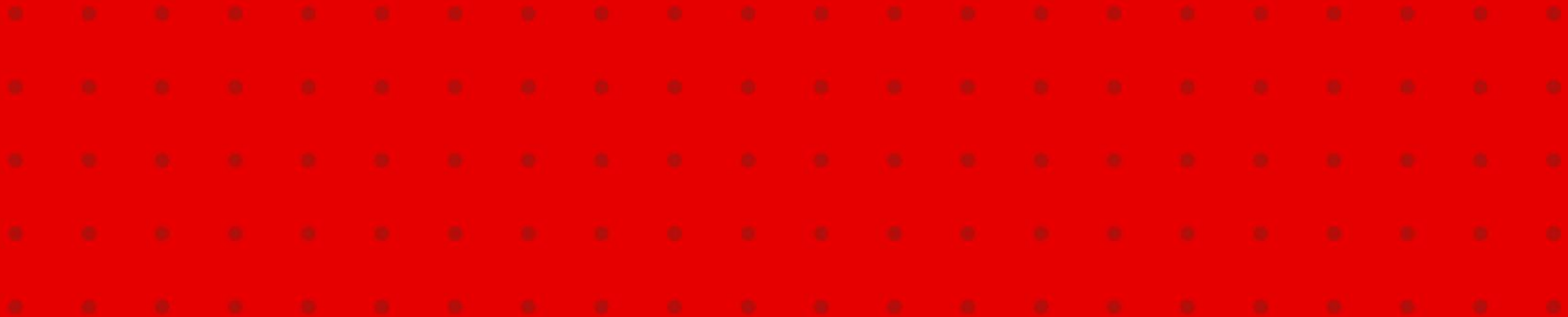

position: fixed;
left: 20px;
top: 20px;
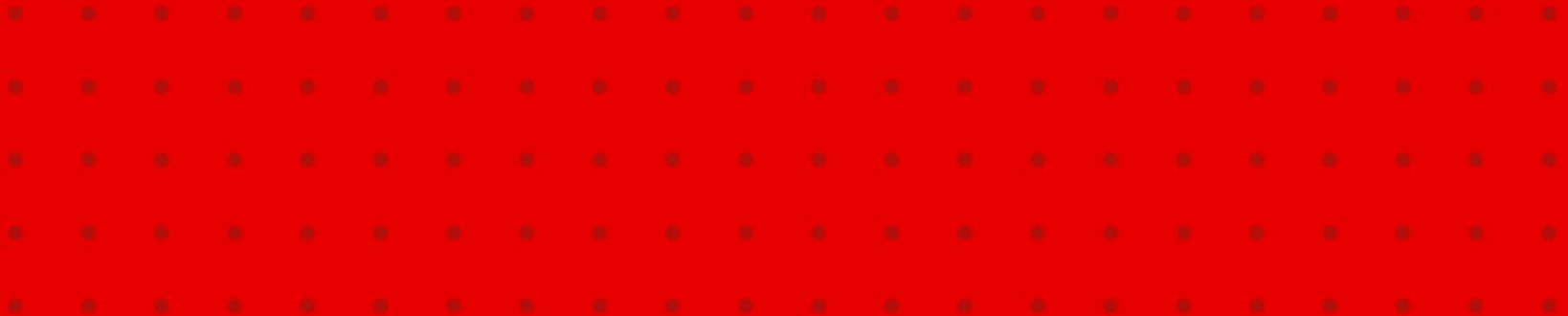
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Box Model

Margin
Border
Padding
Content

Questions?

Exercise

Apply CSS to hotel list page and add hotel page.

BOOTSTRAP

What is Boostrap?

Open Source Framework for Building Web Sites

A bit of CSS

A bit of JavaScript

Modular

Covers the 80% of the Metaphors

Get Bootstrap

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

Download Bootstrap

Currently v3.3.4

http://getbootstrap.com/

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Bootstrap Grid System

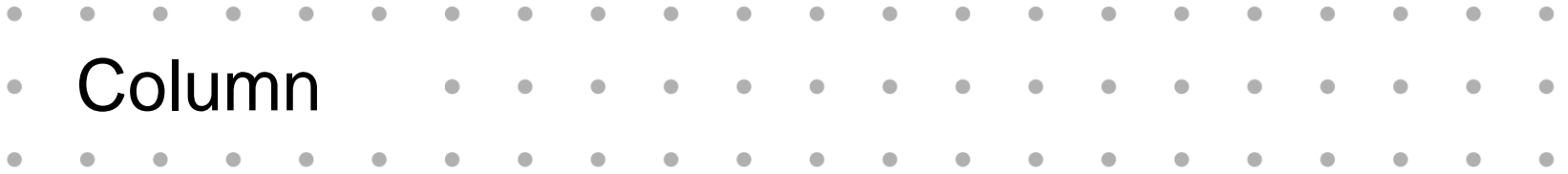Bootstrap uses rows and columns for creating page layouts(Grid system)

Content should be placed within columns, and only columns may be immediate children of rows.

Grid system

.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1

.col-md-8		.col-md-4

.col-md-4	.col-md-4	.col-md-4

.col-md-6	.col-md-6

Grid options

|	**Extra small devices** Phones (<768px)	**Small devices** Tablets (≥768px)	**Medium devices** Desktops (≥992px)	**Large devices** Desktops (≥1200px)
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			

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Column

Max 12 col per row

Offsetting columns

.col-md-offset-*

Column ordering

.col-md-push-*

.col-md-pull-*

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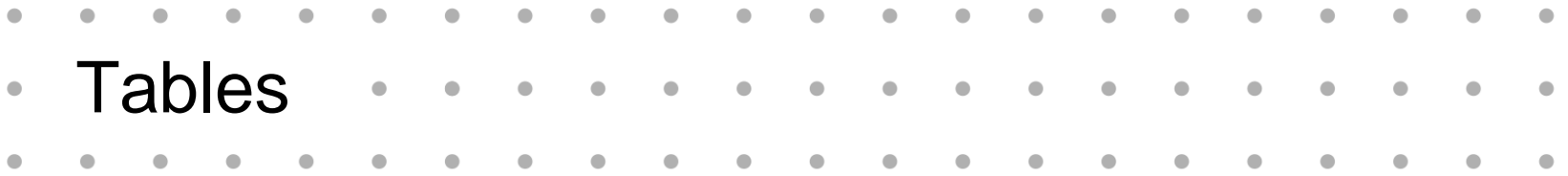
Tables

Basic table

.table

Striped rows

.table-striped

Bordered table

.table-bordered

Hover rows

.table-hover

Condensed table

.table-condensed

Forms

Wrap labels and controls

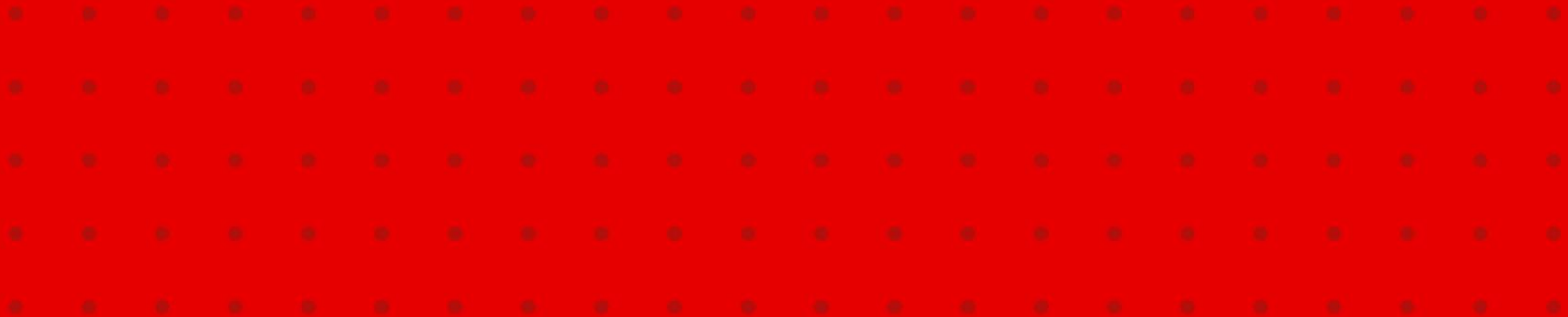.form-group

.form-control

Inline form

.form-inline

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Questions?

Exercise

Add bootstrap to hotel list page and add hotel page. Use bootstrap classes to align and style the pages.

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Thank you!