

Bootstrap

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What is it?

- Front-end framework used for web development
 - HTML/CSS-based templates
 - Support for JS
- Original project name “Twitter Blueprint”
 - Made by Mark Otto and Jacob Thornton, improve internal tools
 - “Pairing designers with developers”
 - Version 1 released on Aug 2011, version 4 released on Aug 2015
- Responsive Web Design
- Mobile First
- One of the most starred repo on Github



Key Features

- Mobile Friendly
 - Auto-resizing
 - Only one line of code
 - `<meta name="viewport" content="width = device-width, initial-scale = 1">`
- Pre-styled Components & Templates
 - Drop-downs, buttons, navigation, badges alerts, progress bar
 - Different colors, fonts, layout available
- Grid Based
 - Designed in responsive 12-column grids, layouts, and components
- Good Documentation/Community base



Typical Use Scenarios

- Building websites for mobile/pc/both
 - Blogs, storefronts, organization, resume
- Short/Simple projects
- Internal tools development



Pros and Cons

Pros

- Easy learning curve
 - Basic html/css knowledge
- Customizable
- Reduces need for user-defined classes

Cons

- Popular -> lack of unique designs
 - Easy to tell when Bootstrap was used as a framework



Alternatives

- Foundation
 - ZURB
 - “Do it yourself” -> more customizable
 - More Structured -> Robust grid system
- Angular
 - Google
 - MVC components reusable
 - No additional plugins / unit test ready
- Materialize
 - Google
 - Based off of Material Design
 - <https://material.io/design/introduction/>



How to get started / Resources?

- Source files

- Download & include in directory

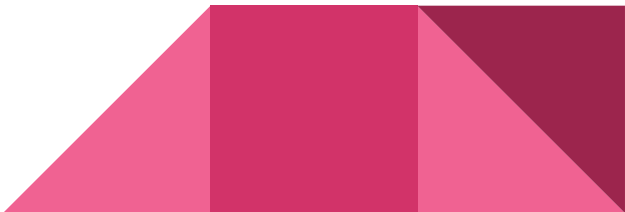
- CDN

- `<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css">`
- `<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"></script>`
- `<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"></script>`
- `<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"></script>`

- NPM

- `npm init`
- `npm install bootstrap`

- <https://getbootstrap.com/docs/4.3/getting-started/introduction/>



Framework Support

Sass/Less



Compatability

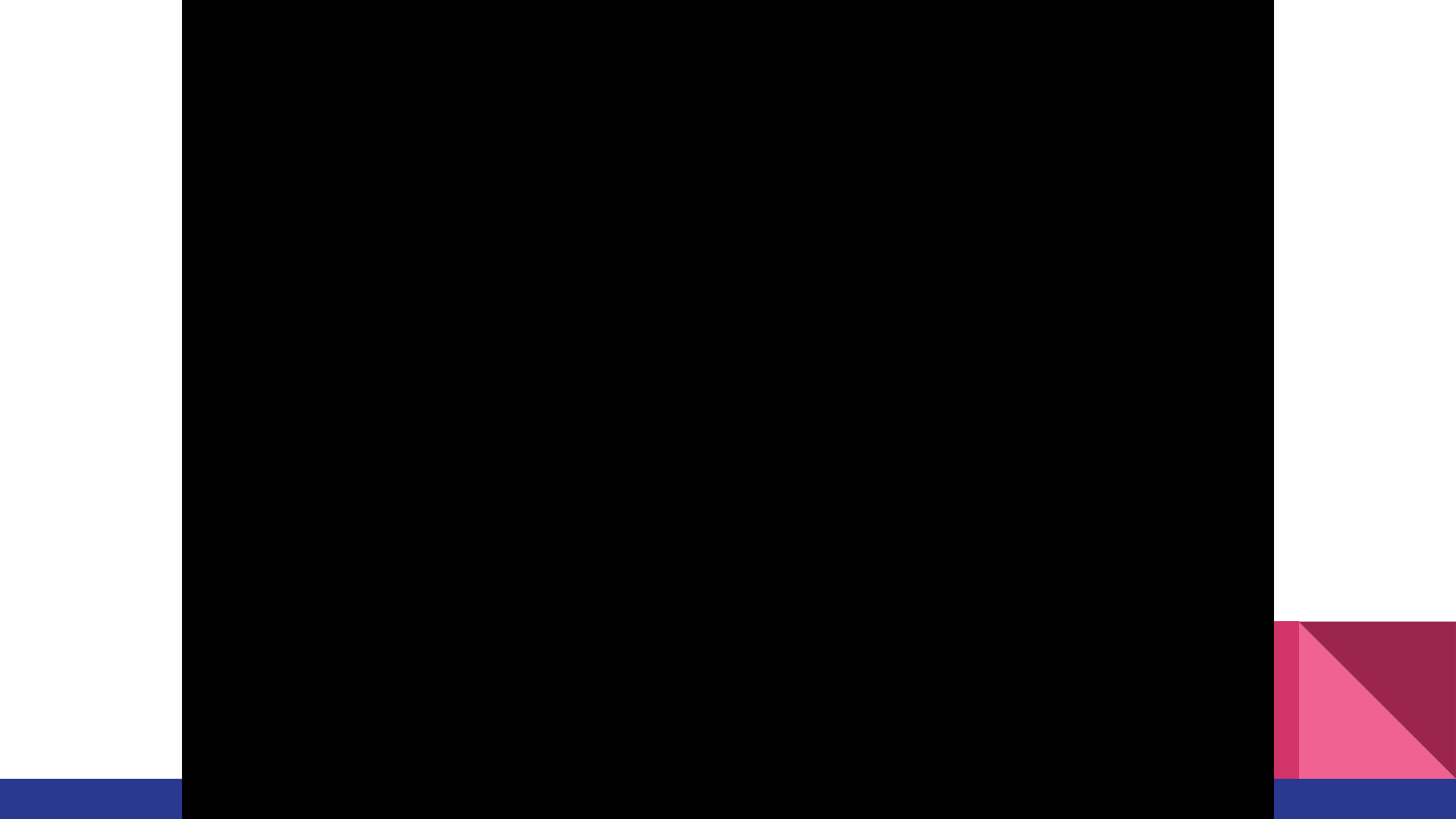


Multiple Devices



DEMO







Questions?