Week 5

Bootstrap is the most popular HTML, CSS and JavaScript framework for developing a responsive and mobile friendly website.

- ✓ It is absolutely free to download and use.
- ✓ It is a front-end framework used for easier and faster web development.
- ✓ It includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many others.
- ✓ It can also use JavaScript plug-ins.
- ✓ It facilitates you to create responsive designs.

History of Bootstrap

Bootstrap was developed by Mark Otto and Jacob Thornton at Twitter.It was released as an open source product in August 2011 on GitHub.

In June 2014 Bootstrap was the No.1 project on GitHub.

Advantages of Using Bootstrap

If you have had some experience with any front-end framework, you might be wondering what makes Bootstrap so special. Here are some advantages why one should opt for Bootstrap framework:

Save lots of time — You can save lots of time and efforts using the Bootstrap predefined design templates and classes and concentrate on other development work.

Responsive features — Using Bootstrap you can easily create responsive websites that appear more appropriately on different devices and screen resolutions without any change in markup.

Consistent design — All Bootstrap components share the same design templates and styles through a central library, so the design and layout of your web pages will be consistent.

Easy to use — Bootstrap is very easy to use. Anybody with the basic working knowledge of HTML, CSS and JavaScript can start development with Bootstrap.

Compatible with browsers — Bootstrap is created with modern web browsers in mind and it is compatible with all modern browsers such as Chrome, Firefox, Safari, Internet Explorer, etc.

Open Source — And the best part is, it is completely free to download and use.

Bootstrap package contains

Scaffolding: Bootstrap provides a basic structure with Grid System, link styles, and background.

CSS: Bootstrap comes with the feature of global CSS settings, fundamental HTML elements style and an advanced grid system.

Components: Bootstrap contains a lot of reusable components built to provide iconography, dropdowns, navigation, alerts, pop-overs, and much more.

JavaScript Plugins: Bootstrap also contains a lot of custom jQuery plugins. You can easily include them all, or one by one.

Customize: Bootstrap components are customizable and you can customize Bootstrap's components, LESS variables, and jQuery plugins to get your own style.

What is Bootstrap 4?

Bootstrap is the newest and latest version of Bootstrap. It is the most popular HTML, CSS, JavaScript framework for developing responsive, mobile first websites.

Bootstrap 3 vs. Bootstrap 4

Bootstrap 4 has some new components, faster stylesheet, more buttons, effects and more responsiveness.

Heroku

Heroku is a cloud service provider and software development platform which facilitates fast and effective building, deploying and scaling of web applications

Heroku is an embodiment of these application development principles and differs from traditional server-based hosting in the following ways:

- it is application, not infrastructure, focused

- is a dynamic and distributed runtime environment

- utilizes a process-based execution model

- enforces a strict separation of apps and their dependencies

DEFINE APPLICATION

Heroku lets you deploy, run and manage applications written in Ruby, Node.js, Java, Python, Clojure, Scala, Go and PHP.

An application is a collection of source code written in one of these languages, perhaps a framework, and some dependency description that instructs a build system as to which additional dependencies are needed in order to build and run the application.

DEPLOYING APPLICATIONS

Git is a powerful, distributed version control system that many developers use to manage and version source code. The Heroku platform uses Git as the primary means for deploying applications (there are other ways to transport your source code to Heroku, including via an API).

When you create an application on Heroku, it associates a new Git remote, typically named heroku, with the local Git repository for your application.

As a result, deploying code is just the familiar git push, but to the heroku remote instead:

eroku is a polyglot platform – it lets you build, run and scale applications in a similar manner across all the languages – utilizing the dependencies and Procfile. The Procfile exposes an architectural aspect of your application (in the above example there are two entry points to the application) and this architecture lets you, for example, scale each part independently. An excellent guide to architecture principles that work well for applications running on Heroku can be found in Architecting Applications for Heroku.

Set up

The Heroku CLI requires Git, the popular version control system. If you don't already have Git installed, complete the following before proceeding:

- Git installation

- First-time Git setup

In this step you'll install the Heroku Command Line Interface (CLI). You use the CLI to manage and scale your applications, provision add-ons, view your application logs, and run your application locally.

Download and run the installer for your platform:

Deploying applications

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As a result, deploying code is just the familiar git push, but to the heroku remote instead:

$ git push heroku master

Terminology: Deploying applications involves sending the application to Heroku using either Git, GitHub, or via an API.