

Python and Django Full Stack Web Developer Bootcamp

This is a Python and Django Full-Stack Training course

This course will allow me to build a website completely from the ground up.

Begins with the Front-end Technologies

HTML, CSS, Bootstrap, JS, JQuery

Back-End

Python, Django, and SQL

Lecture 2: Overview

Download Zip file / new updates to course will be added as time progresses.

General Curriculum:

- HTML, CSS, and Javascript
- DOM and JQuery [Front-End]
- Python
- Django and SQL [Back-End]
- Website Clones

If you come across an error or have issues and need help

Use Google

Use Stackoverflow [Programmers Q/A Forum]

Search FAQ / QA Forum

Developers use the tools they have to answer their own questions

When I have questions, make sure to include my code so that questions can be answered per your code.

Go to Q/A Forums to answer other students' questions, this way you can learn to explain as well as share your knowledge.

Lecture 4: Set-up and Installation

Get Chrome & Atom Text Editor (IDE - Integrated Development Environment)

Lecture 6: What is the Web?

- How the Web Works
 - What happens when we enter a URL into the browser, connect and retrieve a website.
 - You start off by typing the URL into your browser
 - Your computer then sends this request as a packet, which includes the IP address of the website you want; The IP address allows servers to identify what website you are looking for

- It sends this request through wires, or a satellite which eventually links to wires using your ISP (internet service provider); **Example:** If you are at home, the connection is sent via copper wires or optic fiber wires to the server. A cell phone will link to a satellite, which links back to earth, which then ends up going to a physical wire. Internet is basic wires connecting computers with some sort of protocol.
 - Your ISP will then re-route the request to the appropriate server location, using the IP address as the guide
 - Once your request reaches the server, it can send back the website you asked for.
 - However a full website with content is too big to send as a single packet of data.
 - To solve this, the server sends back the website split up into many packets
 - The packets come with instructions on how to get back to you and reassemble once they reach you.
 - The packets don't care how they get to you, just the final location; they may take different paths to get to your computer/cell phone; what really matters to them is the fastest way to get back to you.
 - Once the packets reach you, they are reassembled to show the page.
 - All of this moves at close to the speed of light, so it happens very fast.
- What do we mean by "Full-stack" (Full-Stack Web Development)
 - Two main components of a website:
 - The Front-End
 - The Front-End is what you see as a user on the website; **Example:** Colors and Content are all front end
 - Front-End Revolves around three technologies
 - HTML (Hypertext Markup Language)
 - Every website will have HTML, it is the structure of a page. Viewable by right-clicking and clicking on View Source
 - CSS (Cascading Style Sheet)
 - Is the actual styling of the website. The colors, fonts, borders, etc are all defined by CSS. Not Mandatory, but all sites have it.
 - Javascript
 - Allows you to add interactivity to the website, including programming logic. Any site with interactivity uses javascript in some way, otherwise the site is "static"
 - jQuery and Bootstrap are front end as well, but they are built on the previous three.
 - The Back-End

- The Back-End is the technology used to actually decide what to show you on the Front-end; **Example:** If you are a user, what pictures/content/comments to retrieve from the database and to show you.
- Has three components:
 - The Language - Python
 - Python is a great language to learn, it's simple, powerful, and has many libraries.
 - Syntax is based on code readability and clarity, very easy to scale
 - Large library. (AI, Machine Learning, Gaming, Data visualization)
 - The Framework - Django
 - Django is the most popular framework for python, it's fast, secure, and scalable.
 - Pinterest & Instagram & Bitbucket use it.
 - The Database - SQLite
 - SQLite comes with Django and Python making it an easy choice.
 - Other technologies such as PHP, node.js, Ruby.Rails, Java, Python, etc. are all viable options; how do you decide which to use?