

Software Engineering Certificate

Learn the skills to become a Software Engineer or Full Stack Developer in this immersive course. Create the front end using HTML, CSS, JavaScript, and React; build the back end with Python, Django, and Node.js

Group classes in NYC and onsite training is available for this course. For more information, email hello@nobledesktop.com or visit: <https://www.nobledesktop.com/certificates/software-engineering-bootcamp>



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Course Outline

This package includes these courses

- Web Development with HTML & CSS (18 Hours)
- Advanced HTML & CSS (18 Hours)
- Flexbox, Grid, & Bootstrap (12 Hours)
- JavaScript for Front-End (18 Hours)
- Web Developer Tools: Git & Coding Tips (6 Hours)
- React Development Bootcamp (60 Hours)
- JavaScript Programming Fundamentals (48 Hours)
- JavaScript Development with Node.js (12 Hours)
- JavaScript Development with Express.js (12 Hours)
- NoSQL Databases with MongoDB (12 Hours)
- Web Development Industry & Portfolio (24 Hours)
- Python Programming Bootcamp (30 Hours)
- Python Web Development with Django (60 Hours)

Attend the SQL Bootcamp for free as part of this certificate. Choose your date after you register for the program.

SQL Bootcamp

Front-End Web Development

- HTML: Create web pages and emails using HTML code to mark up content (text, images, etc.)
- CSS: Style the contents of a webpage or email.
- JavaScript & jQuery: Add interactivity, animation, and more to webpages.
- Flexbox, Grid, & Bootstrap: Learn modern page layout techniques.

Code Management & Deploying Sites

- FTP: Upload your files to make the site go live.
- Git: Keep a history of code changes, and merge your code with other developers.
- GitHub & Bitbucket: Work with other developers using remote Git repositories.

JavaScript Programming Fundamentals

- Fundamentals of JavaScript Code
- Advanced Functions (scope, closures)
- Asynchronous JavaScript (callback methodology)
- Features in the latest version of ECMA
- Modularity (import and export)

React Development Bootcamp

- Learn how to write your own React code to build dynamic web and mobile applications
- Understand how to integrate APIs using Axios to build webhooks
- Create mobile applications and upload them to the iOS and Android app store

JavaScript Development with Node.js

- The runtime environment of Node.js
- Creating a basic server to accept and respond to web traffic
- Programming with the Node file system to serve and manipulate static assets
- Creating listeners to respond to changes within your Node application
- Working with Node package manager

NoSQL Databases with MongoDB

- How to setup MongoDB locally
- Working with MongoDB compass GUI
- Creating database schemas
- Creating documents
- Creating search algorithms

JavaScript Development with Express.js

- Creating API routes
- Parsing and creating middleware
- Hosting Express.js routes on a Node server
- Analyzing the different types of routes (POST, GET, PUT, DELETE)

Web Development Industry & Portfolio

- Portfolio creation
- Algorithm practice

Intro to Python

Introduction to Python

- Variables
- Numeric Data Types: Int & Float
- Sequential Types: Str & List
- If-Elif-Else Statements
- Creating Python Scripts/Files
- Definite loops: For loops
- Indexing
- Slicing

Advanced Data Types in Python

- Data Types: tuples
- Dictionaries
- Reading and Writing txt and csv files

Writing Iterative Code and Algorithms

- Indefinite loops: while loops
- Runtime complexity
- Searching and sorting algorithms
- Custom functions in Python
- Args and Kwargs
- Importing files

Object Oriented Programming with Python

Introduction to Object Oriented Programming

- Classes
- Methods
- Inheritance
- Abstract Classes

Working with APIs

- RESTful architecture
- Working with APIs
- Request library

Introduction to Developer Tools and SQL

- Assert statements
- Testing
- Git
- Intro to SQL
- CRUD

Introduction to Django

Introduction to Back-End Web Development using Django

- HTTP protocol
- MVC model
- Virtual environment
- Django structure
- Generic Views
- HTML templates
- URL dispatcher

Advanced Django for Web and Automation

- Custom Views
- GET and POST methods
- URL shortener
- User model
- Logic in templates
- Querying models
- Serving Staticfiles
- Deployment of Django
- Automating tasks with Django

Django REST

Building Web APIs using Django REST

- Generic Views in Django Rest
- Serializers
- JSON
- Building RESTful APIs
- Filtering Models
- Working with Images
- Authentication with tokens
- Postman
- Related models
- Contenttypes app

Deploying Web APIs

- Using API endpoints
- Deployment of Django REST project

Capstone Project and Career Support

Final Project and Presentation

- Concept presentation
- Approval by committee
- Working on the project
- Intermediate report to committee

- Finishing the project

Preparing to enter the job market

- Resume review and mock interviews
- Understanding the job market
- How to identify the right company for you
- Final presentation of working project