



## Backend Development



### Introduction to Backend Development

Back-end development means working on server-side software, which focuses on everything you can't see on a website. Back-end developers ensure the website performs correctly, focusing on databases, back-end logic, application programming interface (APIs), architecture, and servers. They use code that helps browsers communicate with databases, and store, understand, and delete data.

On a team, back-end developers collaborate with front-end developers, product managers, principal architects, and website testers to build the structure of a website or mobile app. Back-end developers must be familiar with many kinds of tools and frameworks, including languages such as Python, Java, and Ruby. They make sure the back end performs quickly and responsively to front-end user requests.

# Do these in order!


## Basics of the Internet

-  How the Internet Works for Developers - Pt 1 - Overview & Frontend
-  How the Internet Works for Developers - Pt 2 - Servers & Scaling


## Basics of HTML/CSS/JS

- <https://www.codecademy.com/catalog/language/html-css>
- Don't stress about this section too much, just understand the basics

## GitHub Crash Course


-  Git and GitHub for Beginners - Crash Course

## Intro to Databases — 101


-  SQL Tutorial - Full Database Course for Beginners
  - MongoDB: <https://learn.mongodb.com/learning-paths/introduction-to-mongodb>
  - Read for reference (optional): <https://www.postgresql.org/docs/current/>
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## Pick a Language

### 1. Python (DJANGO)

- a. Introduction:  Python Django Explained In 8 Minutes
- b. Tutorial: <https://tutorial.djangogirls.org/en/>

- c. Tutorial (video series → build a project):


 Python Django Tutorial: Full-Featured Web App Part 1 - Getting Started

- d. <https://docs.djangoproject.com/en/4.1/> (READ EXTENSIVELY)


- e. Building APIs with Django REST Framework:

 Build a Django REST API with the Django Rest Framework. Complete ...

## 2. JavaScript (NODE.JS)

- a. Introduction:  What is Node js? | Simplified Explanation

- b. Course (Paid): <https://www.udemy.com/course/nodejs-the-complete-guide/>

- c. Course (Free):  Node.js / Express Course - Build 4 Projects

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## Deploying to the Cloud

- You can pick AWS or DigitalOcean — find an online guide to deploying your Node.js / Django backend to either of these cloud services!
  - If you get stuck:
    - <https://www.digitalocean.com/community/tutorials/how-to-set-up-django-with-postgres-nginx-and-gunicorn-on-ubuntu-16-04>
    - <https://www.digitalocean.com/community/tutorials/how-to-set-up-a-node-js-application-for-production-on-ubuntu-16-04>
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