



New York | Bangalore

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# Python Summer 2019

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## Phase 1.1

### Python Basics

Runtime Environment Setup, Git and GitHub Repository Setup

Linux Development Environment, Bash Commands, Linux File System, Navigating the terminal

Python Installation, Running Python Programs using Sublime / IDLE / nano

Programming Fundamentals: Introduction to Python, Data Structures, File Operations, Iteration, Control flow, Functions and Functional Programming, Built-In Functions, Classes and Class Organization

Best Practices: Keeping it simple, DRY code, naming conventions, comments and documentation

Python Standard Library (standard libraries typically include definitions for commonly used algorithms, data structures, and mechanisms for input and output)

Weekend: Python mini project: Well- documented Python module; (those are one to two-hour mini project which could be finished in class so that the students can discuss with peers and get feedback from the teacher/TA.)



## Phase 1.2

Computer Science, Beyond the basics

Quiz 1 - Week 1 Syllabus

Introduction to Computer Science and Computer Organization

Big O Notation, Data Structures, Algorithms (Sorting and Searching)

SQL Introduction

SQL Relationships

Weekend - Interview Questions on Data Structures and Algorithms

## Phase 1.3

**Databases**

Quiz 2 - Week 2 Syllabus

SQL Joins

SQLite3, Postgress SQL and MySQL

Introduction to APIs

CRUD and HTTP Verbs

MVC - Model View Controller

Data Formats - XML, JSON and CSV

Weekend - Building a terminal application with the MVC Design pattern, persisting data in SQL, and utilizing APIs to grab data in JSON format

## Project Phase

All students complete a full demonstratable project before they graduate from the course.

## THE BYTE ADVANTAGE



### CAREER FOCUS

All our students receive lifelong advisory, placement and support via our career counseling service and extensive partner and alumni network. We begin career counseling from Week 3 itself to ensure placements in a career path of your choice.



### INDUSTRY SPECIFIC EDUCATION

Industry focused programs in FinTech, Data Science, Python and Blockchain that deep dive into all aspects of technology. Our courses teach you the Full Stack of Technology with which you can build end-to-end products.



### PROJECT BASED LEARNING

Our programs focus on practical learning as opposed to only theory instruction. Students will have 2 final demo-able projects at the end of the course that they would have built with help from the instructors and their peers.



### COMMUNITY SUPPORT

Engage with a vibrant community of learners, students, professionals, industry experts, hackers, entrepreneurs and more. We provide ongoing support to our community through partnerships, events, mentorship and more.



### FLEXIBLE FORMAT

Our programs come in a variety of formats to meet your scheduling needs including full-time intensive, part-time and workshops. Our comprehensive programs consist of over 400 hours of tutoring and project work.

**6 WEEKS  
MON-FRI  
10AM TO 2PM**

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COURSES NOW**

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