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Learn Python Programming - Beginner to Master

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Created by Abdul Bari

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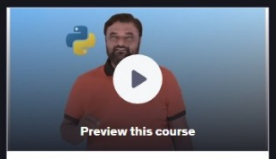

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What you'll learn

- Master Python Programming by doing 100+ Challenges
- Build Multithreaded Applications
- Build GUI Applications
- Learn Modules - DataStructure, OS, NumPy, Math, DateTime and Tkinter
- Detail understanding of fundamentals
- using Python for Database Programming
- Master art of Functional and Object-Oriented Programming

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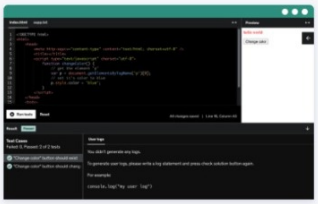

Course content

26 sections • 354 lectures • 61h 43m total length Expand all sections

Introduction to Python — 8 lectures • 1hr 6min

Instructor's Note	Preview	04:34
introduction to Python	Preview	05:41
Programming Languages		09:42
Compiler Vs Interpreter	Preview	13:55
Python is Hybrid		06:37
Python is Platform Independent		08:29
Programming Paradigms		12:35
Python Libraries		04:16

Python Installation and Setup — 4 lectures • 35min

Installing Python	06:55
Installing Pycharm	06:33
Installing VS Code	07:32
Installing and using Jupiter Notebook	14:05

Python Datatypes — 13 lectures • 2hr 42min

Section Introduction		01:43
What is a Program ?		05:28
What are Variables ?		14:15
Python Dynamically Typed		08:19
Rules for declaring Variable Names		13:42
Python Data Types	Preview	12:37
Variables		5 questions
Setup Jupyter for Practice		08:45
Numeric Datatypes (int & float)	Preview	17:55
Numeric Datatype (bool & complex)		14:37

Literals or Constants	16:01
Integer Literals	12:50
Numeric type & Literals	4 questions
Base Conversion	11:47
Type Conversion	24:27
Type and Base conversions	4 questions

Operators and Expression — 10 lectures • 1hr 46min

Section Introduction	01:20
Arithmetic Operators	12:13
Expressions	14:50
Program using Expressions	04:16
Area of a Rectangle	1 question
Challenges using Expression	13:57
Arithmetic Operators and Expressions	4 questions
Area of a Triangle	1 question
Area of a Trapezium	1 question
Area of a Circle	1 question
Taking Input From Keyboard	09:44
Kilometers to Miles	1 question
Calculate the Displacement.	1 question
Challenge : Surface area of Cuboid	09:15
Surface Area of a Cuboid	1 question
Challenge : Quadratic Equations	13:03
Arithmetic Assignment Operators	10:00
String Concatenation & Repetition	17:05
Arithmetic Assignment Operators	4 questions

Conditional Statements — 14 lectures • 2hr 16min

Section Introduction	01:26
Conditional Statements- if ...else	11:16
Compound Conditional Statements	12:59
Challenge : Odd or Even	06:25
Odd or Even	1 question
Challenge : Eligible to Work	09:00
Age Check for Work	1 question
Valid Marks	1 question
Gender Check	1 question
Challenge : Exam Result	07:58
Vowel or Consonant	1 question
Exam Result	1 question
Eligibility to Vote	1 question
Nested if and elif Statements	07:11
Challenge : Discounted Bill	04:33
Challenge : Weekday Name	09:02
Challenge : Leap Year or Not	13:12
String Comparison	11:20
Short Circuit	11:26
Bitwise Operator	19:57
Chaining Comparison	09:56
Conditional Statements	5 questions

Loops - Control Flow — 18 lectures • 3hr 19min

Section Introduction	01:16
Introduction to Loops	10:30
Logic using While Loop	15:57
Challenge : Count & Sum of Digits	08:57
Count Digits of a Number	1 question
Sum of Digits of a Number	1 question
Challenge : Reverse and Palindrome	11:35
Reverse a Number	1 question
Challenge : Sum of N numbers	11:34
Challenge : Finding Max and Min Number	14:17
Loops	2 questions
Infinite Loop - break - continue	14:51
else suite - While	09:20
For Loop	16:52
Challenge : Factorial of Given Number	11:45
Challenge : Fibonacci Series	09:48
Challenge : Prime Number	11:53

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- More about For Loop 06:46
- Infinite - break , pass , for loop 4 questions
- Nested Loops 10:25
- Challenge : Prime Numbers from 1-100 07:16
- Challenge : Draw Patterns 18:29
- Match Case 07:43

String and its Methods 19 lectures • 3hr 41min

- Section Introduction 01:06
- Introduction to String 15:36
- Indexing Slicing 22:06
- Strings Operations 12:28
- Introduction to Strings 2 questions
- String Class 13:44
- find( ) and index( ) Methods 19:58
- String Alignment and Padding 16:12
- Joining and Splitting a String 18:01
- Prefix and Suffix of a String 14:47
- Case Conversion Methods 10:31
- Inquiry Methods 13:41
- More Inquiry Methods 13:10
- Restaurant Menu - Project 06:15
- Card Payment Receipt - Project 05:17
- URL Parsing - Project 09:45
- Palindrome String - Project 08:22
- Anagrams - Project 07:43
- Data Cleaning - Project 05:31
- Resetting Password - Project 06:40
- String Methods 4 questions

Formatted Printing 8 lectures • 1hr 42min

- Section Introduction 01:39
- ASCII Code 13:11
- Unicode 15:11
- Escape Sequence : Special Characters 15:51
- Escape Sequence : Printable and Non Printable 07:54
- Print Function 11:31
- C Style Formatting 16:31
- Python Formatted Printing 20:01
- Escape Sequences and Printing 5 questions

Regular Expression 5 lectures • 1hr 12min

- Section Introduction 01:03
- Regular Expressions 17:45
- Quantifiers 17:28
- Special Characters 23:06
- Escape Sequences 12:26
- Regular Expression 5 questions

List 21 lectures • 3hr 9min

- Section Introduction 01:59
- List Introduction 15:42
- Indexing and Slicing - Read 11:27
- Indexing and Slicing - Write 16:25
- List Concatenation & Repetition 13:56
- List Traversals 10:52
- Adding Elements to a List 16:31
- Removing Elements from a List 11:11
- Index, Sort & Reverse 18:47
- List Comprehensions 12:44
- Nested List 09:42
- Challenge : Calculating Salary 06:18
- Challenge : Removing Duplicates 03:37
- Challenge : Concatenating List into Single Number 03:23
- Challenge : Minimum Index in Sum of Two Lists 06:59
- Challenge : Overlapping Elements in Two Lists 02:41
- Challenge : Find the number of occurrences of each item. 06:21
- Challenge : Telegram-Morse Code 08:35
- Challenge : Adding Two Matrix 05:34

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Challenge : Transpose of Matrix 04:18

Challenge : Word Starting with a Given Letter 02:25

List 7 questions

Tuple — 5 lectures • 48min

Section Introduction 00:45

Tuple Introduction 15:35

Tuple Comprehensions and Methods 08:46

Indexing & Slicing - Tuple 10:53

Packing and Unpacking 11:37

Tuple 5 questions

Sets — 9 lectures • 1hr 29min

Section Introduction 01:15

Sets - Introduction 17:57

Internal Working of Sets 16:36

Set in Mathematics 07:46

Set Operations in Mathematics 09:03

Set Methods : Union , Intersection, Difference etc. 10:09

Operators on Set 08:41

Set Methods : Adding and Deleting 12:52

Set Comprehensions 04:53

set 6 questions

Dictionary — 11 lectures • 1hr 31min

Section Introduction 01:01

Dictionary - Introduction 16:59

Dictionary Creation Methods 12:41

Dictionary Comprehensions 08:16

Looping over Dictionary 10:55

Dictionary Methods 11:08

Challenge : Birthday of a Person 02:41

Dictionary 8 questions

Challenge : Finding Meanings in Dictionary 09:12

Challenge : Countries Names 05:35

Challenge : Roman to Integer Number 09:12

Challenge : Student Details 03:23

Functions — 26 lectures • 4hr 53min

Section Introduction 01:09

What are Functions ? 09:15

How to Write a Function ? 15:57

Positional vs Keyword Arguments 13:49

Default Arguments 21:16

Positional-Only Arguments 11:25

Keyword-Only Arguments 09:02

Positional-Only & Keyword-Only Mixed 06:55

Functions 3 questions

Variable Length Positional Arguments 16:37

Variable Length Keyword Arguments 10:04

Multiple Returns 06:11

Iterators and Generators 21:26

Local & Global Variables 13:16

Recursive Functions 15:43

Parameters to Functions 3 questions

Math Functions : Built-in 19:07

Object & Attribute Function : Built-in 13:21

Iteration & Sequence Functions : Built-in 08:27

What are Modules ? 18:27

Challenge : Printing Positional Message 03:10

Challenge : Planet Names 04:41

Challenge : Inverting a Dictionary 04:50

Challenge : Pangram Phrase 11:18

Challenge : Case Counting Letters 04:52

Challenge : Minimum Variable Number 07:40

Challenge : Pascal's Triangle 15:39

Challenge : Flattening Nested List 09:36

More About Functions — 8 lectures • 1hr 15min

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Functions as Objects	08:08
Nested Functions	07:39
Functions as Parameters	06:16
Returning Functions	03:48
Closure Function	13:05
Decorator	09:10
Lambda	20:43
Caller Class	06:30

Exception Handling — 14 lectures • 2hr 24min

Section Introduction	01:03
Types of Errors	12:19
Who Should Handle Errors?	10:37
Examples of Exceptions	08:31
Exceptional Handling	14:07
Handling Multiple Exceptions	10:30
Exceptions #1	10 questions
Why try and except ?	16:11
else Blocks	05:36
finally Block	14:21
User Define Exceptions	13:28
Nested try & except	08:22
Exceptions #2	4 questions
Challenge : Negative Age	06:40
Challenge : Account Balance	07:27
Challenge : Simple Calculator	14:24

File Handling — 8 lectures • 1hr 34min

Section Introduction	00:54
Introduction to Files	11:59
Modes of Opening a File	14:35
Operations on File	17:00
Copying Binary Files	07:24
Random Access Files	18:02
Pickle and UnPickle	14:37
Zip and Unzip	09:30
Files	7 questions

Object Oriented Programming — 33 lectures • 5hr 22min

Introduction to OOP'S	15:55
Defining Object	09:36
How to write a Class	07:41
Self and Constructor	09:18
Instance Variable and Method	11:48
Class Variable and Method	17:16
Static Methods	11:50
Property Methods	16:05
Introduction to Inheritance	10:13
Constructors in Inheritance	06:39
Data Hiding	14:10
Inner Classes	04:47
Polymorphism	08:23
Polymorphism (DuckTyping)	13:05
Method Overloading	06:55
Method Overriding	06:50
Operator Overloading	14:51
Generalization & Specialization	18:52
Abstract Class and Interface	09:20
Method Resolution	09:56
Quiz	6 questions
Challenge : Class for Circle	05:11
Challenge : Details of an Employee	08:14
Challenge : Simple Class for Calculator	03:46
Challenge : Customer Phone Number	04:27
Challenge : Currency Converter	07:05
Challenge : Bank Account	11:49
Challenge : Inheriting Shapes in Classes	10:20
Challenge : Academic Courses	08:47

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- Challenge : Details of a Computer 07:35
- Challenge : Pet Details 05:58
- Challenge : Measuring the Angles 09:34
- Challenge : Different Shape Class 06:18
- Challenge : Rational Number 09:07

MultiThreading
8 lectures • 1hr 6min

- Section Introduction 01:13
- Introduction to MultiThreading 08:16
- Ways of Thread Creation 10:07
- Mutex 08:21
- Semaphore 05:42
- Inter-Process Communication (IPC) 16:28
- IPC using Conditions 07:50
- IPC using Queue 08:24
- MultiThreading 4 questions

Date and Time
14 lectures • 1hr 52min

- Section Introduction 01:20
- Introduction to Date 13:19
- Creating Date and Time 09:26
- Formatting Date and Time 13:43
- What is timedelta ? 07:42
- Calendar Module 12:53
- DateTime 5 questions
- Challenge : Months Starting from Monday 04:41
- Challenge : Code Execution Time 05:12
- Challenge : String to Object Date 04:18
- Challenge : Calculate Age 07:58
- Challenge : Last Thursday's Date 11:20
- Challenge : All Sundays of a Year 06:16
- Challenge : Day Number of a Year 03:55
- Challenge : Second Saturdays in a Year 10:23

DataBase Connectivity
17 lectures • 3hr 10min

- Section Introduction 01:34
- DataBase Terminology 10:02
- Downloading SQLite 06:21
- Learning DDL & DML 18:49
- Learning SQL Select Queries 16:50
- Learning SQL join and group Queries 13:44
- Learning Aggregate Functions and Set Operations 11:27
- Learning SubQueries 12:43
- Using Python : Create DataBase 05:29
- Using Python : Create Tables 10:13
- Using Python : insert into Tables 08:59
- Using Python : Querying Data 18:30
- Using Python : Querying Data #2 09:30
- Using Python: Update & Delete 10:58
- Challenge:Shop Database 08:46
- Challenge:Shop Queries 10:20
- Challenge: Shop Queries #2 15:52
- SQL 6 questions

Data Structure Modules
18 lectures • 2hr

- Section Introduction 00:35
- Counter 06:06
- Deque 07:05
- Array 06:14
- Heapq 06:46
- Bisect 05:33
- Copy 05:31
- Data Structure Quiz 3 questions
- Challenge : Top 3 Common Words 06:37
- Challenge : Inventory 05:32
- Challenge : Bills with Subtotals 11:20
- Challenge : Barbershop Queue 05:53
- Challenge : Canteen Queue 05:37

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Challenge : First Duplicate in Array 05:48
Challenge : Missing Natural Number 09:09
Challenge : Integers with Highest Product 12:15
Challenge : Performing Heap Sort 06:34
Challenge : K th Largest Number 09:09
Challenge : Sorting a List 04:22

Math Modules 5 lectures • 50min

Section Introduction 00:30
Fractions 08:01
Random 14:32
Math 16:56
Statistics 10:13

OS Module 7 lectures • 1hr 8min

Section Introduction 01:06
OS Path and it's Functions 15:58
OS Module and it's Functions 13:46
Reading a CSV File 13:10
Reading a CSV File in Dictionary Format 10:02
Creating a CSV File Using Writer 06:09
CSV Dictionary Writer 07:21

Tkinter 46 lectures • 9hr 40min

Section Introduction 01:44
Introduction to Tkinter 09:04
First Application in Tkinter 10:49
What are Widgets? 15:54
How Widget Options works ? 23:19
Geometry Manager : pack 17:00
Geometry Manager : grid 11:24
Geometry Manager : place 16:22
Introduction to Events 11:33
Event Binding 19:39
Event Binding Continued.. 16:29
Event Class 16:14
Modifying Widget Options in a Event Handler 16:54
Tkinter Documentation 09:49
Widget Options : State 16:31
Widget Options : Style 16:47
Widget Options : Selection 08:50
Widget Options : Cursor 08:18
Widget Options : Text Wrap 08:58
Widget Options : Numbers 12:38
Widget Options : Graphic 05:51
Check Button Widget 14:25
Radio Button Widget 05:56
Label & Button Widget 06:21
List Box Widget 12:56
List Box Widget Continued.. 06:39
Spin Box Widget 12:20
Scale Widget 11:21
Entry Widget 16:23
Text Widget 15:37
Creating Menus 20:58
MessageBox Dialog 08:59
FileDialog Widget 14:01
Challenge : Digital Clock 08:00
Challenge : Stop Watch 15:48
Challenge : Font Options 09:35
Challenge : Base Conversion 07:41
Challenge : Shuffle List 08:41
Challenge : Option Menu 09:04
Challenge : Colour Selection 12:29
Challenge : CSV Data 10:00
Challenge : CSV Records 12:45
Frame & Label Frame 10:14
Top Level Widget 12:07
Canvas Widget 22:50

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Challenge : Drawing Application	20:15

NumPy Arrays — 5 lectures • 1hr 14min

Array Creation in Numpy	16:30
Creating Different Types of Arrays	19:06
Indexing Arrays	17:02
Reshaping Array	06:55
DataTypes in Numpy	14:28
Numpy Quizz	7 questions

Requirements

- No Programming Experience Needed
- Laptop or PC with access to Internet

Description

Learn Python Programming - course is curated for Beginner to Master.

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what a presentation of concept !! , quality of content is amazing thanks for the update.

Helpful?

a month ago

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3 months ago

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