

FULL CURRICULUM • 2026

Python

The first language worth learning — and the last one you'll stop using.

Every module, every lesson — the complete syllabus, end to end.

27

MODULES

366

LESSONS

7

MONTHS

₹28,900

FULL PROGRAMME

What this course covers

1

Level 1 • Beginner

Introduction • Python Basics • Strings in Python

2 months • 8 modules • 77 lessons • ₹6,800

2

Level 2 • Intermediate

File handling & Exception handling • Regular Expression • Object Oriented Programming

2 months • 9 modules • 188 lessons • ₹8,600

3

Level 3 • Advanced

REST API's USING DJANGO • WEB SCRAPING • OPEN CV

3 months • 10 modules • 101 lessons • ₹13,500

The whole journey

This is the complete syllabus for Python — 27 modules and 366 lessons, in the order you will learn them. The level markers show how far each stage carries you, but the curriculum runs as one continuous path from the first lesson to the last.

1

LEVEL 1

Beginner

Introduction · Python Basics · Strings in Python

2 months · 8 modules · 77 lessons · ₹6,800

1. Introduction

3 lessons

- Installing Python
- Installing Pycharm
- Introduction to programming & Python

2. Python Basics

15 lessons

- Literals
- Variables
- Keywords
- Primitive Datatypes
- Basic operations with strings
- Type conversion - int, float, str
- Type conversion - boolean
- Arithmetic & Assignment Operators
- Comparison & Logical Operators
- Associativity & Precedence of operators
- Printing to console - the print() function
- Taking input from user - the input() function
- Getting started with PyCharm
- Numeric functions
- Coding exercises

3. Strings in Python

5 lessons

- Slicing in strings
- fstring in Python
- Escape sequences
- Operations on strings - membership, strip, replace
- Operations on strings - count, cases, start, end

4. Lists in Python

6 lessons

- Lists Introduction
- List operations - slicing, concat, repeat, append, insert
- List operations - extend, remove, pop
- List operation - reverse, sort, count, membership
- Numerical operations on list elements
- Nested lists

○ 5. Tuples, Sets & Dictionaries

12 lessons

- Introducing tuples
- Basic operations on tuples
- Lists are mutable! Tuples are not
- Introducing sets
- Basic operations on sets
- Operations on sets - union, intersection, difference
- Is my set frozen!
- Introducing dictionaries
- Operations on dict - updating and deleting
- Working with keys & values
- Is the copy shallow or deep
- for loop

○ 6. Control Statements

5 lessons

- The if block
- if else block
- if-elif-else
- Nested if statements
- The ternary Operator

○ 7. Loops

15 lessons

- for loop
- For loops with strings and dict
- The range() function
- Total, highest and lowest using loops
- continue and break
- The while loop
- Infinite while loop
- random module
- Nested loops
- Star pattern using for loops
- Exercise - Roll a dice
- Exercise - List & Loops
- Exercise - Loops & dictionaries
- Number guessing game - problem
- Number guessing game - solution

○ 8. Functions & Modules

16 lessons

- Introduction to functions
- User defined functions
- Returning values from function
- Types of arguments
- Variable length positional arguments
- Variable length keywords arguments
- Docstrings in Python functions
- Recursive functions
- Local and Global variables
- Function as an argument
- Lambda function
- filter() and map() with lambda
- Modules in Python
- User defined modules
- What is __name__
- A Simple banking application

Intermediate

File handling & Exception handling · Regular Expression · Object Oriented Programming

2 months · 9 modules · 188 lessons · ₹8,600

9. File handling & Exception handling 14 lessons

- Introduction to File handling
- Creating files
- The w mode
- Reading files
- Appending into a file
- The with statement
- Check if a file exists
- Common issues with file handling
- Exception and try-except
- Exception handling - else & finally
- Raising exceptions
- The json module
- Pickle and exception handling
- The pickle module

10. Regular Expression 9 lessons

- Introduction to RegEx
- The dot metacharacter and character classes
- Special characters in regex
- Quantifiers
- More metacharacters in regex
- Finding all matches - findall, finditer
- Substituting the pattern - sub()
- The compile function
- Exercise - Finding valid emails

11. Object Oriented Programming 24 lessons

- Introduction to OOPs
- What are classes and objects
- Creating classes and objects
- What are attributes
- Instance methods
- Arguments in instance methods
- Initializer and Instance variables
- Class variables
- class methods
- static methods
- Mini Project - Phone Book Part - 1
- Mini Project - Phone Book Part - 2
- Inheritance introduction and single inheritance
- Single inheritance and initialization
- Single inheritance - arguments
- Multiple Inheritance
- Multilevel inheritance
- Introduction to polymorphism
- Polymorphism - operator overloading
- Polymorphism - method overloading
- Polymorphism - method overriding
- Introduction of encapsulation and abstraction
- Abstract class
- Custom exception classes

○ 12. Tkinter

12 lessons

- Introduction to GUI and tkinter
- Label, title, minsize, pack
- Button and change label text
- The Entry component
- What is ttk
- Quitting the window
- Frames and background colors
- Text, Separator and padding
- Checkbutton widget
- Radiobutton widget
- Checkbox and Listbox
- Spinbox widget

○ 13. CALCULATOR USING TKINTER

3 lessons

- Calculator(1)
- Calculator(2)
- Calculator(3)

○ 14. Building Database Apps with PostgreSQL & Python

15 lessons

- Introduction to data
- Introduction to database
- Introduction to PostgreSQL
- Installing PostgreSQL
- Creating a database
- Deleting a database
- Creating table and adding data
- Retrieving data from database and deleting contents in the table
- Setting up virtualenv
- Installing psycopg2
- Connecting to the database
- Creating table using python
- Inserting the data using python
- Extracting the data from the database
- Adding the input from the user



15. DATA ANALYSIS

34 lessons

- Data Analysis
- Installing Anaconda
- Libraries important properties
- Importing csv file
- Methods to view file
- Data cleaning
- Data Formatting
- Data normalization
- Data Normalization 2
- Binning
- Binning 2
- Value counts
- Boxplot and Scatterplot
- Groupby
- Pivot
- Heat map 1
- Heat map 2
- ANOVA
- Correlation
- Correlation 2
- Simple Linear Regression
- Multiple Linear Regression
- Simple Linear Regression using python
- Multiple Linear Regression using python
- Regression Plot
- Residual plot
- Distribution plot 1
- Distribution plot 2
- Polynomial Regression 1
- Polynomial Regression 2
- In Sample Evaluation
- Mean Squared Error
- R Squared 1
- R Squared 2



16. Django

64 lessons

- Introduction to Django
- Install Django
- Django Project Structure
- Creating a new django project
- Understanding the Django project
- Start the development server
- Django Apps
- Urls & Views
- Building a blog website
- Adding home page and other urls & views
- Dynamic Path Segments
- Path converters
- Slugs
- Returning html content as response
- Making the code more dynamic
- Named urls & reverse()
- Introduction to Templates
- Creating & using templates
- Registering Templates
- Rendering templates - best practice
- DTL & variable injection - 1
- DTL & variable injection - 2
- Template filters
- Template tags and the 'for' tag
- Url tag
- The if tag
- Inheritance in templates - 1
- Inheritance in templates - 2
- The include tag - 1
- The include tag - 2
- The 404 template
- Static files
- Global static files
- Adding content to home page - 1
- Adding content to home page - 2
- Adding images
- Changes to allposts page - 1
- Changes to allposts page - 2
- Changing the post data in views
- Making index.html dynamic
- The include tag revisited
- Generating url for allposts
- Fixing individual post page
- Data & Models
- Migrations
- Relationships
- Adding more models & relationships
- Admin panel & adding models to it
- Addind data via admin
- Configuring the admin panel
- Auto-populating the slug field
- Quering data from DB - 1
- Quering data from DB - 2
- Quering data from DB - 3
- Forms
- The Form class
- Configuring the form
- Saving the form data - 1
- CSRF token
- Handling the submitted data - 1
- Handling the submitted data - 2
- Saving the form data
- Displaying the comment on the post
- Handling comments via admin & Conclusion



17. FLASK

13 lessons

- Introduction to flask
- Installation of Flask
- Basic webpage 1
- Basic webpage 2
- Importing HTML files using Flask
- Basic Registration form
- Basic Registration form 2
- Basic Registration form 3
- Redirecting using Hyperlinks
- Redirecting using Hyperlinks 2
- Adding images to Flask
- Template Inheritance
- Styling the website

3

LEVEL 3

Advanced

REST API's USING DJANGO · WEB SCRAPING · OPEN CV

3 months · 10 modules · 101 lessons · ₹13,500



18. REST API's USING DJANGO

12 lessons

- API's and REST API's
- Hello world using REST API's
- Creating model in the admin
- Posting API's
- Segregating into pages
- Setting an authentication
- Adding username to the posts
- Adding permissions
- Filtering based on usernames
- Search Filter
- Filtering based on the date
- Ordering filters



19. WEB SCRAPING

20 lessons

- Intro to Web Scraping
- Unicode and ASCII
- Retrieving content from webpages
- Getting the data
- Stating the data using dictionaries
- Content
- Text
- Posting the data
- Params
- Filtering the data 1
- Filtering the data 2
- Filtering the data 3
- Filtering the data 4
- To csv file
- Downloading images 1
- Downloading images 2
- Downloading images 3
- Downloading images 4
- Price Tracer 1
- Price Tracer 2

○ 20. OPEN CV

22 lessons

- Images
- Installing open-cv
- CV and OpenCV
- Reading an image
- Writing an image
- Resizing an image
- Morphological operations
- Morphological operations 2
- Flipping an image
- Resizing an image based on the aspect ratio
- Resizing an image based on aspect ratio 2
- Adding shapes and text
- Shifting an image
- Image Rotation
- Thresholding
- Gaussian blur
- Median blur
- Bilateral filter
- Edge Detection
- Reading a video
- Writing a video
- Accessing the webcam

○ 21. AUTOMATION WITH SELENIUM

9 lessons

- Installation
- Opening a url
- Automating Google search
- Automating navigations
- Finding element by different methods
- Selecting links
- Refreshing the page
- Finding element by xpath
- Getting data

○ 22. Building A Facebook Auto Poster

1 lessons

- Building A Facebook Auto Poster

○ 23. TIPS AND TRICKS IN PROGRAMMING

4 lessons

- Tips to become a good programmer
- Logical Thinking
- Tips Techniques 1
- Tips Techniques 2

○ 24. Network Programming In Python Using Sockets : Building A Chat Application

9 lessons

- IP Address
- Ports & Sockets
- Creating A Client
- Sending Messages
- Using Buffer
- Building The Messaging Functionality
- Sending Messages To Client
- Programming Send Functionality
- Completing Our Chat App

○ 25. Miscellaneous Content

9 lessons

- Updating entries in Django with UpdateView
- Bootstrap part 1: Introduction To Bootstrap
- Bootstrap Part 2: Adding Bootstrap To Our Site
- Bootstrap Part 3: Bootstrap Grid System
- Bootstrap Part 4: Grid Classes Part 1
- Bootstrap Part 5: Grid Classes Part 2
- Bootstrap Part 6: Grid Column Offset
- Bootstrap Part 7: Making Images Responsive
- Bootstrap Part 8: Nesting of Rows & Columns

○ 26. Regular Expressions Revisited

14 lessons

- Introduction to Regular Expressions & Raw Strings
- Search & Match Methods
- Introduction To Meta Characters
- Star Meta Character
- Introduction To Plus Meta Character
- Plus Meta Character Example
- Introduction To Curly Braces
- Curly Braces Example
- Introduction To Wildcard
- Wildcard Example
- Optional Meta Character
- Caret Meta Character
- Character Classes Part 1
- Character Classes Part 2

○ 27. CONCLUSION

1 lessons

- Conclusion

Certificates & what comes next

You receive a certificate at the end of every level you finish. Join for a single level or the full programme — the choice is yours. Learners who stand out may be invited to work on live client projects as interns; these places are merit-based, limited, and depend on projects being available.