



Complete Practical, Real-time Job Oriented Training

Python Full Stack Developer

What is Python?

Python is a versatile and easy-to-learn programming language used across various domains like web development, data science, automation, and artificial intelligence.

Known for its clean and readable syntax, Python helps developers write code faster. It supports multiple programming styles, including object-oriented and functional programming.

Its flexibility and community support make it a top choice for both beginners and professionals.

What are the job roles in Python?

1. Python Developer
2. Data Analyst
3. Data Scientist
4. Machine Learning Engineer
5. DevOps Engineer
6. Data Engineer
7. Software Engineer

What does this Python Course include?

This 100% Practical course includes:

- 👉 Module 1: CORE PYTHON
- 👉 Module 2: ADVANCED PYTHON
- 👉 Module 3: SQL CONCEPTS
- 👉 Module 4: FLASK & DJANGO
- 👉 Module 5: UI / UX TECHNOLOGIES

🕒 Total Duration: 4+ Months

Who can join this course?

Anyone. We learn from Basics and proceed to Advanced concepts, scenarios and more with Realtime Project.

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The banner features the SQL SCHOOL logo and an ISO 9001 certification seal. The main title is 'Python Full Stack' in large yellow letters, followed by 'New Batch Every 10 days' in smaller yellow text. A list of course topics is shown: 1. Core Python, 2. Advance Python, 3. SQL Basics, 4. HTML, CSS, JS, and 5. Flask & Django. To the right, a list of features includes Step by Step, Online Training, Offline Training, and Real-Time Project, each with a checkmark. A man in a suit is pointing upwards. At the bottom, there are logos for various technologies (JS, SQL, A, Python, jQuery, B) and contact information: a phone icon, the number +91 9666 64 0801, and the website www.sqlschool.com.

Module 1: CORE PYTHON

Chapter 1: Python Introduction

- ✓ Need for Data Analytics
- ✓ Python in Data Analysis
- ✓ History of Python
- ✓ Python Versions
- ✓ Python Implementations
- ✓ Python Installations
- ✓ Python IDE & Usage
- ✓ Jupyter Notebooks

Chapter 2: Python Basics, Architecture

- ✓ Python Scripting Options
- ✓ Basic Operations in Python
- ✓ Python Scripts, Print ()
- ✓ Single, Multiline Statements
- ✓ Adding Cells, Saving Notebook
- ✓ Single, Multi Line Comments
- ✓ Python: Internal Architecture
- ✓ Compiler Versus Interpreter

Chapter 3: Data Types & Variables

- ✓ Integer / Int Data Types
- ✓ Float & String Data Types
- ✓ Boolean, Binary Types
- ✓ Sequence Types: List, Tuple
- ✓ Range, Complex & memview
- ✓ Retrieving Data Type: type ()
- ✓ Multi Assignments & Casting
- ✓ Unpack Collection, Outputs

Chapter 4: Python Operators

- ✓ Arithmetic, Assignment Ops
- ✓ Comparison Operators
- ✓ Logical, Identity Operators
- ✓ Member, Bitwise Operators
- ✓ Operator Precedence
- ✓ If ... Else Statement, Pass
- ✓ Short Hand If, OR, AND
- ✓ ELIF and ELSE IF Statements
- ✓ Expressions, Ternary OPs

Chapter 5: Python Loops, Iterations

- ✓ Python Loop & Realtime Use
- ✓ Python While Loop Statement
- ✓ Break and Continue Statement
- ✓ Using Print with While()

- ✓ Iterations & Conditions
- ✓ Exit Conditions & For Loops
- ✓ Break, Continue & Range
- ✓ `__iter__()` and `__next__()`
- ✓ `iter()` and Looping Options

Chapter 6: Python Collections

- ✓ Python Collections (Arrays)
- ✓ `list()` Constructor, `print()`
- ✓ Python Tuples, Tuple Items
- ✓ `tuple()` Constructor, Usage
- ✓ Python Sets : Syntax Rules
- ✓ Duplicates, Types, Ordered
- ✓ Python Dictionaries: Usage
- ✓ Changeable, Ordered Data
- ✓ Dictionary Construct, `type()`

Chapter 7: Python Functions

- ✓ Python Functions & Usage
- ✓ Function Parameters
- ✓ Arguments, `**kwargs`
- ✓ Default & List Parameters
- ✓ Python Lambda Functions
- ✓ Anonymous Functions
- ✓ Recursive Functions, Usage
- ✓ Return & Print @ Lambda

Chapter 8: Python Classes & Arrays

- ✓ Python Classes & Objects
- ✓ `__init__()` Function
- ✓ `__str__()` Function
- ✓ Self Parameters & Objects
- ✓ Python Inheritance & Classes
- ✓ Parent & Child Classes
- ✓ `__init__()` & `super()` Function
- ✓ Polymorphism in Python

Chapter 9: Python Modules

- ✓ import Python Modules
- ✓ Variables in Modules
- ✓ Built In Modules & `dir`
- ✓ `datetime` module in Python
- ✓ Date Objections Creation
- ✓ `strftime` Method & Usage
- ✓ `imports` & `datetime.now()`
- ✓ Using Python Constructors

Chapter 10: Python JSON & RegEx

- ✓ JSON Concepts, Usage
- ✓ Dictionary & import json
- ✓ Python Objects into JSON
- ✓ Formatting & Ordering
- ✓ json.dumps, print options
- ✓ Python Regular Expressions
- ✓ RegEx Module & Function
- ✓ search() & span() , Strings
- ✓ Using RegEx with JSON

Chapter 11: Python User Inputs & TRY

- ✓ Try Except, Exception Handling
- ✓ NameError Resolution
- ✓ Python Finally Block, Usage
- ✓ Raise an exception method
- ✓ TypeError, Scripting in Python
- ✓ Python User Inputs
- ✓ Python Index Numbers
- ✓ Named Indexes, Usage
- ✓ input() & raw_input()

Chapter 12: Python File Handling

- ✓ File Handling, Activities
- ✓ r, a, w, x modes
- ✓ t, b Operations
- ✓ Read Only Parts
- ✓ Loop, Write, Close Files
- ✓ Appending, Overwriting
- ✓ import os, path.exists
- ✓ f.open, f.write
- ✓ f.read, f.close

Chapter 13: Data Analytics - Pandas

- ✓ Python Modules & Pandas
- ✓ Pandas Codebase & Usage
- ✓ Installation of Pandas
- ✓ import pandas.DataFrame
- ✓ Checking Pandas Version
- ✓ Pandas Series, arrays
- ✓ Labels : Creation, Use
- ✓ series(), print()

Chapter 14: DataFrames

- ✓ Indexes & Named Options
- ✓ Locate Row and Load Rows
- ✓ Row Index & Index Lists
- ✓ Load Files Into a DataFrame
- ✓ pd.read_csv() Function

- ✓ `pd.options.display.max_rows`
- ✓ `df.to_string()` Function
- ✓ `tail()` & `null()` Function

Chapter 15: Pandas Transformations

- ✓ Pandas – Cleaning Data
- ✓ Replace, Transform Columns
- ✓ Data Discovery & Column Fill
- ✓ Identify & Remove Duplicates
- ✓ `dropna()`, `fillna()` Functions
- ✓ Pandas – Data Correlations
- ✓ Good & Bad Correlation
- ✓ Data Plotting & `matplotlib` Lib

Chapter 16: SQL DB & Python – 1

- ✓ SQL & Databases
- ✓ Azure Data Studio Tool
- ✓ `sp_execute_external_script`
- ✓ Input Data & Result Sets
- ✓ DDL & DML with Python
- ✓ `SQL_out`, `SQL_in`
- ✓ Variables & Parameters
- ✓ Versions, Package List
- ✓ WITH RESULT SETS Options

Chapter 17: SQL & Python – 2

- ✓ `pandas.Series` with SQL DBs
- ✓ Indexing Methods in Realtime
- ✓ Convert series to data frame
- ✓ Output values into `data.frame`
- ✓ `pymssql` package in SQL Server
- ✓ `pip list` & Package Manager
- ✓ Python runtime, `Py` Package
- ✓ `pymssql.connect` & Usage
- ✓ Cursor Variables & Usage

Module 2: ADVANCED PYTHON

Chapter 18: Python Dictionary

- ✓ Dictionary Creation, Use
- ✓ Hashing, Copy, Update
- ✓ Deletion, Sorting
- ✓ `len()`, Inbuilt Functions
- ✓ Variable Types – python List
- ✓ `cmp()` List Method
- ✓ Python Dictionary `Str(dict)`
- ✓ Programming Concepts

- ✓ Loops and Sets
- ✓ Realtime Usage

Chapter 19: Python Packages

- ✓ Package in Python
- ✓ Creating a package
- ✓ Package Imports, Modules
- ✓ Sub Packages Creation
- ✓ Sub Package Imports
- ✓ Popular Packages in Python
- ✓ NumPy & SciPy
- ✓ Libraries in Python
- ✓ Python Seaborn
- ✓ Python framework

Chapter 20: Exception Handling

- ✓ Shell Script Commands
- ✓ OS operations in Python
- ✓ File System Shell Methods
- ✓ os – math – cmd -csv – random
- ✓ Numpy (numerical python)
- ✓ Pandas – sys – Matplotlib;
- ✓ Common RunTime Errors
- ✓ Python Custom Exception;
- ✓ Exception Handling
- ✓ Try...Except...else, Try...finally

Chapter 21: Python Class & Objects

- ✓ Class variables, Instances
- ✓ Built in Class Attributes
- ✓ Objects – Constructors
- ✓ Modifiers – Self Variable
- ✓ Python Garbage Collections
- ✓ Hierarchical Inheritance
- ✓ Multilevel, Multiple, Hybrid
- ✓ Overloading & OverRiding
- ✓ Polymorphism – Abstraction

Chapter 22: Regular Expressions

- ✓ Regular Expression
- ✓ Regular Expression Patterns
- ✓ Literals – Repetition Cases
- ✓ Groups and Grouping
- ✓ w+ and ^ , \s Expressions
- ✓ re.split function
- ✓ Regular expression methods
- ✓ re.match() in Regular Expr
- ✓ re.search(), re.findall for Text

Chapter 23: Multi-Threading

- ✓ Python Multi-Threading
- ✓ Thread Synchronization
- ✓ Multiprocessing
- ✓ Python Gil & Programming
- ✓ Thread Control Block (TCB)
- ✓ Stack Pointers & App Usage
- ✓ Program Counters in Realtime
- ✓ Thread State Concept
- ✓ Python Exception Handling

Chapter 24: Python Tkinter

- ✓ Tkinter GUI Program
- ✓ Components & Events
- ✓ Adding Controls in Tkinter
- ✓ Entry, Text Widgets
- ✓ Radio & Check Buttons
- ✓ Tkinter Forms in Realtime
- ✓ List Boxes, Menu, ComboBox
- ✓ Mainloop () & Functions

Chapter 25: Python Web & IoT Intro

- ✓ Python Web Frameworks
- ✓ Django : Advantages
- ✓ Web Framework
- ✓ MVC and MVT – Django
- ✓ Web Pages using python
- ✓ HTML5, CSS3 usage
- ✓ PYTHON Bottle & Pyramid
- ✓ Falcon ; smart_open in python

Module 3: DATABASE & SQL CONCEPTS

Chapter 26: Introduction

- ✓ Database Introduction
- ✓ Types of Databases
- ✓ Need for & ETL, DWH
- ✓ BI Implementations
- ✓ SQL Server Advantages
- ✓ Version, Editions of MSSQL
- ✓ MSSQL Job Role

Chapter 27: Installations

- ✓ SQL Server Installation
- ✓ SSMS Tools Installation
- ✓ Database Engine (OLTP)
- ✓ SCM, Configuration Tools
- ✓ Instance Types, Uses
- ✓ Authentication Modes
- ✓ Collation, File Stream

Chapter 28: SQL Basics – 1

- ✓ Need for Databases, Tables
- ✓ Need for SQL Commands
- ✓ DDL, DML & DQL Statements
- ✓ Database Creation @ GUI
- ✓ Data Operations @ GUI
- ✓ Session ID, SQL Context
- ✓ DB, Tables, Data @ SQL

Chapter 29: SQL Basics – 2

- ✓ DDL Variants in MSSQL
- ✓ DML Variants in MSSQL
- ✓ INSERT & INSERT INTO
- ✓ SELECT & SELECT INTO
- ✓ Basic Operators in SQL
- ✓ Special Operators in MSSQL
- ✓ ALTER, ADD, TRUNCATE, DROP

Chapter 30: Data Imports, Schemas

- ✓ Data Imports with Excel
- ✓ ORDER BY & UNION
- ✓ UNION ALL For Sorting Data
- ✓ Creating, Using Schemas
- ✓ Real-world Banking Database
- ✓ Table Migrations @ Schemas
- ✓ 2 Part, 3 Part & 4 Part Naming

Chapter 31: Constraints, Index Basics

- ✓ Need for Constraints, Keys
- ✓ NULL, NOT NULL, UNIQUE
- ✓ Primary Key & Foreign Key
- ✓ RDBMS and ER Models
- ✓ Identity Property, Default
- ✓ Clustered Index, Primary Key
- ✓ Non-Clustered Index, Unique

Chapter 32: Joins & Views Basics

- ✓ JOINS: Purpose. Inner Joins
- ✓ Left / Right / Full Outer Joins
- ✓ Cross Joins, Query Tuning
- ✓ Creating & Using Views
- ✓ DML, SELECT with Views
- ✓ RLS: WITH CHECK OPTION
- ✓ System Views & Metadata

Chapter 33: Grouping & Cube

- ✓ Group By & HAVING
- ✓ Cube, Rollup & Grouping
- ✓ Joins with Group By
- ✓ 3 Table, 4 Table Joins
- ✓ Query Execution Order

Module 4: FLASK & DJANGO

Chapter 34: Introduction

- ✓ Introduction to flask and its architecture
- ✓ Installing flask package
- ✓ Introduction to flask components
- ✓ Introduction to Virtual Environment
- ✓ Creating Virtual Environment and activating, deactivating it
- ✓ Introduction to routing in Flask
- ✓ Building sample flask application

Chapter 35: Building routes with Flask

- ✓ What is a dynamic route?
- ✓ Building dynamic routes with flask
- ✓ Redirection in Flask
- ✓ Dynamic URL building with url_for function
- ✓ URL converters in Flask
- ✓ int and string url converters
- ✓ request and response in Flask

Chapter 36: Introduction to Django

- ✓ Understanding web development frameworks
- ✓ Introduction to Django and its features
- ✓ Installing Django and setting up a development environment
- ✓ Creating a simple Django project and app

Chapter 37: Django Models and Database Integration

- ✓ Creating models and defining database tables
- ✓ Working with Django's Object-Relational Mapping (ORM)
- ✓ Performing database queries using Django's QuerySet API
- ✓ Migrations and database schema evolution

Chapter 38: Views and Templates

- ✓ Building views to handle HTTP requests
- ✓ Creating templates for dynamic HTML generation
- ✓ Routing and URL patterns in Django
- ✓ Passing data from views to templates

Chapter 39: Django Forms

- ✓ Creating HTML forms in Django
- ✓ Form validation and handling form submissions
- ✓ Customizing form behavior with Django form classes
- ✓ Integrating forms with models

Chapter 40: Django Admin Panel

- ✓ Utilizing the Django admin interface for content management
- ✓ Customizing the admin panel for specific models
- ✓ Adding custom actions and filters

Chapter 41: Authentication and Authorization

- ✓ Implementing user authentication in Django
- ✓ Managing user sessions and passwords
- ✓ Configuring permissions and authorization

Chapter 42: Django REST Framework

- ✓ Introduction to RESTful APIs
- ✓ Building APIs with Django REST Framework
- ✓ Serializers, views, and authentication for APIs
- ✓ Consuming APIs in Django applications

Chapter 43: Frontend Integration with Django

- ✓ Integrating frontend frameworks with Django
- ✓ Using static files and media in Django projects
- ✓ AJAX and asynchronous behavior in Django applications

Chapter 44: Testing and Debugging in Django

- ✓ Writing unit tests for Django applications
- ✓ Debugging techniques and tools
- ✓ Best practices for testing in Django

Chapter 45: Deployment and Scaling

- ✓ Preparing a Django application for deployment
- ✓ Choosing a hosting platform
- ✓ Configuring production settings
- ✓ Scaling Django applications

Module 5: UI/UX TECHNOLOGIES

Chapter 46: Introduction to frontend technologies

- ✓ Introduction to HTML, CSS and Java Script
- ✓ Hierarchy of HTML
- ✓ Basic HTML programs

Chapter 47: Bootstrap

- ✓ Introduction to bootstrap
- ✓ Understanding its working
- ✓ Building basic functions

Chapter 48: Java Script

- ✓ Introduction to Java Script
- ✓ Basic functions
- ✓ Script Validations

Chapter 49: Attaching External Script File

- ✓ Introduction
- ✓ Integrating Java Script to Python Environment.

Chapter 50: DevOps Practices

- ✓ Introduction
- ✓ Waterfall Model Vs Agile Model
- ✓ Basic definitions
- ✓ Working
- ✓ Introduction to containers and container orchestration

Chapter 51: End to End Real time Project

- ✓ Real Time Project
- ✓ Resume Building Guidance
- ✓ Mock Interview

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All sessions are practical, step by step. Kindly ensure on-time practice for best results.



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Trending Job Roles

- Data Analyst
- Data Engineer
- Data Architect
- Data Scientist
- Developer, more .. !

Training Highlights

- Step by Step
- LIVE Project(s)
- Job Assistance
- Resume Guidance
- Concept wise FAQs

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