Python Course

Certification Training

IntelliPaat

Table of Contents

1. About the Program
2. About Intellipaat
3. Key Features
4. Career Support
5. Why take up this course?
6. Who should take up this course?
7. Program Curriculum
8. Project Work
9. Certification
10. Intellipaat Success Stories
11. Contact Us

About the Program

Learn the most in-demand Python course that will help you gain skills in writing Python code and working with packages such as SciPy, Matplotlib, Pandas, Scikit-Learn, NumPy, web scraping libraries, and the Lambda function. Learn online how to write Python code for Big Data systems like Hadoop and Spark. Get hands-on experience by working on real-world projects, and gain Python certification from us.

About Intellipaat

Intellipaat is one of the leading e-learning training providers with more than 600,000 learners across 55+ countries. We are on a mission to democratize education as we believe that everyone has the right to quality education.

Our courses are delivered by subject matter experts from top MNCs, and our world-class pedagogy enables learners to quickly learn difficult topics in no time. Our 24/7 technical support and career services will help them jump-start their careers in their dream companies.

Key Features

42 HRS INSTRUCTOR-LED TRAINING

24 HRS SELF-PACED TRAINING

50 HRS REAL-TIME PROJECT WORK

LIFETIME ACCESS

24/7 TECHNICAL SUPPORT

INDUSTRY-RECOGNIZED CERTIFICATION

JOB ASSISTANCE THROUGH 80+ CORPORATE TIE-UPS

FLEXIBLE SCHEDULING

Career Support

SESSIONS WITH INDUSTRY MENTORS

Attend sessions from top industry experts and get guidance on how to boost your career growth

MOCK INTERVIEWS

Mock interviews to make you prepare for cracking interviews by top employers

GUARANTEED INTERVIEWS & JOB SUPPORT

Get interviewed by our 400+ hiring partners

RESUME PREPARATION

Get assistance in creating a world-class resume from our career services team

Why take up this course?

- Python's design and libraries provide 10 times productivity compared to C, C++, or Java
- A Senior Python Developer in the United States can earn US$102,000 – Indeed

Python is a highly popular object-oriented language that is fast to learn and easy to deploy. It can run on various systems like Windows, Linux, and Mac. This makes it highly coveted for the Data Analytics domain. Upon the completion of Python certification training, you can work in the Big Data Hadoop environment for very high salaries.

Who should take up this course?

- BI Managers and Project Managers
- Software Developers and ETL Professionals
- Analytics Professionals
- Big Data Professionals
- Those who wish to have a career in Python

Program Curriculum

Python Course Content

PYTHON ENVIRONMENT SETUP & ESSENTIALS

- Introduction to the Python language
- Features and the advantages of Python over other programming languages
- Python installation: Windows, Mac, and Linux distribution for Anaconda Python
- Deploying Python IDE
- Basic Python commands, data types, variables, keywords, and more

***Hands-on Exercise**:*

1. *Installing Python Anaconda on Windows, Linux, and Mac*

PYTHON LANGUAGE BASIC CONSTRUCTS

- Built-in data types in Python
- Learn classes, modules, Str(String), ellipsis object, null object, ellipsis, and debug
- Basic operators: Comparison, arithmetic, slicing, logical, and bitwise
- Loop and control statements: While, for, if, break, else, and continue

Hands-on Exercise:

1. *Writing your first Python program*
2. *Writing a Python function (with and without parameters)*
3. *Using the Lambda expression*
4. *Writing a class*
5. *Creating a member function and a variable*
6. *Creating an object*
7. *Writing a for loop*

OOP CONCEPTS IN PYTHON

- How to write an OOP concepts program in Python
- Connecting to a database
- Classes and objects in Python

- OOPs paradigm and important concepts in OOP, such as polymorphism, inheritance, and encapsulation
- Python functions, return types, and parameters
- Lambda expressions

Hands-on Exercise:

1. *Creating an application that helps check the balance, deposit money, and withdraw the money using the concepts of OOPs*

DATABASE CONNECTION

- Understanding the need for databases
- Installing MySQL on Windows
- Understanding database connection using Python

Hands-on Exercise:

1. *Demo on database connection using Python and pulling data*

NUMPY FOR MATHEMATICAL COMPUTING

- Introduction to arrays and matrices
- Broadcasting array math and indexing an array
- Standard deviation, conditional probability, correlation, and covariance

Hands-on Exercise:

1. *How to import a NumPy module*
2. *Creating an array using ND-array*
3. *Calculating standard deviation on an array of numbers*
4. *Calculating correlation between two variables*

SCIPY FOR SCIENTIFIC COMPUTING

- Introduction to SciPy
- Functions building on top of NumPy, cluster, linalg, signal, optimize, integrate, subpackages, and SciPy with the Bayes theorem

Hands-on Exercise

1. *Importing of SciPy*
2. *Applying the Bayes theorem on the given dataset*

MATPLOTLIB FOR DATA VISUALIZATION

- How to plot graph and chart with Python
- Various aspects of line, scatter, bar, histogram, and 3D charts, the API of Matplotlib, and subplots

Hands-on Exercise:

1. *Deploying Matplotlib for creating pie, scatter, line, and histogram charts*

PANDAS FOR DATA ANALYSIS & MACHINE LEARNING

- Introduction to Python DataFrames
- Importing data from JSON, CSV, and Excel files, SQL database, and a NumPy array to a DataFrame
- Various data operations such as selecting, filtering, sorting, viewing, joining, and combining

Hands-on Exercise:

1. *Working on importing data from JSON files*
2. *Selecting a record by a group*
3. *Applying filter on top viewing records*

EXCEPTION HANDLING

- Introduction to exception handling
- Scenarios in exception handling with execution
- Arithmetic exception
- RAISE of exception
- What is a random list? Running a random list on Jupyter Notebook
- Value error in exception handling

Hands-on Exercise:

1. *Demo on exception handling with an Industry-based use case*

MULTI-THREADING & RACE CONDITION

- Introduction to thread and the need for threads
- What are thread functions?
- Performing various operations on threads such as joining a thread, starting a thread, and enumeration in a thread
- Creating a multithread and finishing multithreads
- Understanding the race condition, lock, and synchronization

Hands-on Exercise:

1. *Demo on starting a thread and a multithread*
2. *Performing multiple operations on them*

PACKAGES & FUNCTIONS

- Introduction to modules in Python and the need for modules
- How to import modules in Python
- Locating a module, namespace, and scoping
- Arithmetic operations on modules using a function
- Introduction to the search path, global and local functions, and filter functions
- Python packages, importing the packages, and the various ways of accessing them
- Decorators, pointer assignments, and xldr

Hands-on Exercise:

1. *Demo on importing modules and performing various operations on them using arithmetic functions*
2. *Importing various packages, accessing them, and performing different operations on them*

WEB SCRAPING WITH PYTHON

- Introduction to web scraping in Python
- Installing Beautiful Soup
- Installing Python Parser LXML
- Various web scraping libraries: Beautiful Soup and Scrapy Python packages
- Creating a Soup object with input HTML
- Searching of a tree, full or partial parsing, and output print

Hands-on Exercise:

1. *Installation of Beautiful Soup and LXML Python Parser*
2. *Making a Soup object with the input HTML file*
3. *Navigating using Py objects in the Soup tree*

Project Work

Python Projects

Analyzing the Naming Pattern Using Python

In this Python project, you will work with the United States Social Security Administration (SSA), which has collected data on the frequency of baby names from 1880 to 2016. The project requires analyzing the data through different methods. You will visualize the most frequent names, determine the naming trends, and come up with the most popular names for a certain year.

Performing Analysis on Customer Churn Dataset

Using the powers of Data Science and data visualization, you will be performing analysis on the reliability of the employees of a telecom company. This real-time analysis of data will be done through multiple labels, and the final outcomes will be reflected through multiple reports.

Python Web Scraping for Data Science

Through this project, you will be introduced to the process of web scraping using Python. It involves the installation of Beautiful Soup, web scraping libraries, working on common data and page format on the web, learning the important kinds of objects, deploying the searching tree, knowing about navigable string, navigation options, parser, and search tree, searching by CSS class, list, function, and keyword argument.

Certification

After the completion of the course, you will get a certificate from Intellipaat.

Success Stories

Kevin K Wada

Thank you very much for your top-class service. A special mention should be made for your patience in listening to my queries and giving me a solution, which was exactly what I was looking for. I am giving you a 10 on 10!

Sampson Basoah

The Intellipaat team helped me in selecting the perfect course that suits my profile. The whole course was practically oriented, and the trainers were always ready to answer any question. I found this course to be impactful. Thank you.

Haris Naeem

Great course! I had a good experience with this platform. It trained me well. I completed my Python training with this institute where it provided extremely good training and good support too. Further, the course instructors were really well-educated. They explained all the topics with great enthusiasm.

Vikrant Singh

It was a wonderful experience learning from Intellipaat's trainers. They were hands-on experts and provided real-time scenarios. For learning cutting edge and latest technologies, Intellipaat is the right place!

CONTACT US

INTELLIPAAT SOFTWARE SOLUTIONS PVT. LTD.

Bangalore

AMR Tech Park 3, Ground Floor, Tower B,
Hongasandra Village, Bommanahalli,
Hosur Road, Bangalore – 560068

USA

1219 E. Hillsdale Blvd. Suite 205,
Foster City, CA 94404

If you have any further queries or just want to have a conversation with us, then do call us.

IND: +91-7022374614 | US: 1-800-216-8930