



Python Programming

COURSE & CONTENT

Available in

Online **LIVE** & Offline

EISYSTEMS TECHNOLOGIES

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Why should I learn Python Programming?

Python is a high-level programming language that has become increasingly popular in recent years due to its simplicity, versatility, and ease of use. Here are some reasons why you should consider learning Python:

1. It's easy to learn: Python has a simple syntax that is easy to read and understand, making it a great choice for beginners.
2. It's versatile: Python can be used for a wide range of applications, from web development and data analysis to machine learning and artificial intelligence.
3. It has a large community: Python has a large and active community of developers who contribute to its development and offer support to those who are learning it.
4. It's in high demand: Python is one of the most popular programming languages and is used by companies such as Google, Facebook, and Amazon.
5. It's open-source: Python is an open-source language, which means that it's free to use and distribute.

What are career prospects if I learn Python Programming?

Python programming offers a range of career prospects in different fields. Here are some career options:

1. **Data Analyst:** Python is widely used in data analysis due to its ability to handle large datasets and libraries such as Pandas and NumPy, which make it easier to manipulate data. A data analyst uses Python to analyze and interpret data, create visualizations, and communicate insights to stakeholders.
2. **Machine Learning Engineer:** Python has become the preferred language for developing machine learning models due to its ease of use and availability of powerful libraries such as TensorFlow and Keras. A machine learning engineer uses Python to develop, train, and deploy machine learning models for various applications.
3. **Web Developer:** Python is used in web development frameworks such as Django and Flask, which make it easier to build web applications. A web developer uses Python to develop and maintain web applications.
4. **Software Engineer:** Python is used in software development due to its ability to integrate with other programming languages and its versatility in various applications. A software engineer uses Python to develop software applications and manage software projects.
5. **Data Scientist:** Python is used extensively in data science due to its ability to handle large datasets and its availability of libraries such as Pandas, NumPy, and Scikit-learn. A data scientist uses Python to analyze and interpret data, develop predictive models, and communicate insights to stakeholders.

The demand for Python programming skills is growing rapidly in different industries such as finance, healthcare, retail, and education. This makes Python programming a valuable skill set for anyone interested in pursuing a career in technology.

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What is Python Programming market size?

It is difficult to give an exact market size for Python programming as it is used in various industries and applications, and there is no central repository that tracks the usage or sales of Python-related products or services. However, we can look at some data points that give an idea of the widespread use of Python in the market:

1. According to the 2021 Developer Survey by Stack Overflow, Python is the third most popular programming language after JavaScript and HTML/CSS.
2. In the TIOBE Index for April 2023, Python ranks as the third most popular programming language, behind Java and C.
3. According to the GitHub's Octoverse report for 2021, Python is the third most popular language in terms of contributors and the fourth most popular language in terms of repositories.
4. According to a report by Grand View Research, the global market for data analytics software is expected to reach \$129.9 billion by 2027, and Python is one of the most commonly used languages in data analytics.
5. According to a survey by Indeed, Python developers are one of the top five most in-demand tech jobs, with an 18.7% increase in job postings from 2019 to 2020.

These statistics suggest that Python is widely used and in high demand in the job market, making it a valuable skill to have for anyone interested in pursuing a career in technology.

Python & Indian job market

Python programming is becoming increasingly popular in the Indian job market due to its versatility and ease of use. Here are some points about Python programming in the Indian job market:

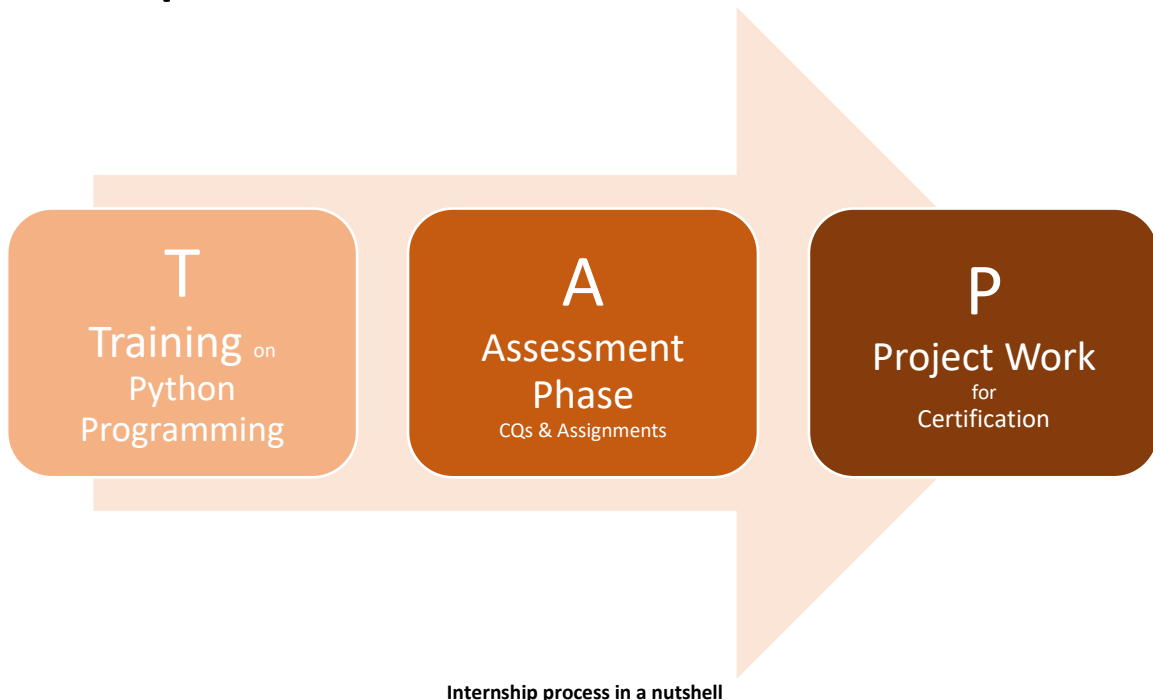
1. According to a survey by Analytics India Magazine, Python is the most popular programming language for data science and analytics in India.
2. Python is widely used in various industries such as finance, healthcare, e-commerce, and education in India.
3. Many Indian startups are using Python for their technology stacks, and there is a growing demand for Python developers in the startup ecosystem.
4. The Indian government has launched several initiatives such as Digital India, Smart Cities, and Make in India, which are driving the demand for Python developers in various sectors.
5. Python developers in India can expect a salary ranging from INR 3 lakhs to INR 20 lakhs per annum, depending on their experience, skills, and location.
6. Many Indian universities and institutions are offering Python programming courses and certifications, which are helping students and professionals upskill and reskill in Python.
7. Overall, Python programming is a valuable skill to have in the Indian job market, and the demand for Python developers is expected to grow in the coming years.

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Internship Process in a nutshell



Internship process in a nutshell

Prerequisites of this program

Participants from CSE/IT/MCA/BCA/BSc IT/ECE background are eligible to join this program, even if any person who is planning to sit in placement drive(s) then this program will be very much helpful.

Infrastructural Requirements

We expect participant(s) to have

1. A laptop with Microsoft Windows configuration with minimum 8GB RAM.
2. Laptop Charger/ Adapter for charging purpose.
3. Internet Connectivity.
4. Smartphone (4G/5G)

Post Training Deliverables

Every participant will get all under mentioned deliverables

1. 25 hours training by specialized trainer.
2. Offer Letter
3. Certificate of Internship with Project Mentioning
4. Study Material / Classroom Material
5. Guidance for Entrepreneurship in chosen field or employment support.
6. Chance to assist our trainer in our workshop(s) at IISc, IITs, NITs etc.

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Course & Content

All of the sessions will be practical oriented, kindly look on the syllabus which we are going to cover during training days.

<p>Session 1 Introduction Why do we need Python? How to Install Python? Execution steps Interactive Shell User Interface or IDE Creating Your First Python Program</p> <p>Session 2 Memory Management and Garbage Collection Object Creation and Deletion Object Properties Data Types and Operations Numbers String Operations</p> <p>Session 3 List Tuple Dictionary Other Core Types</p> <p>Session 4 Statements and Syntax Assignments, Expressions and prints If tests and Syntax Rules While and For Loops</p> <p>Session 5 File Operations Opening a file Using Files Other File tools Python Check If File or Directory Exists Python COPY and PASTE File using shutil.copy() Python Rename File and Directory using os.rename() Python ZIP file with Example</p> <p>Session 6 Functions Function Definition and Call Function Scope Function Arguments</p>	<p>Session 7 Modules and Packages Module Creations and Usage Types of package in Python Package creation Importing packages</p> <p>Session 8 Classes Classes and Instances Classes method calls Class methods Instance methods Static methods</p> <p>Session 9 OOPs concept Abstraction Encapsulation Polymorphism Types of Polymorphism Inheritance Types of inheritance</p> <p>Session 10 Exception Handling Default Exception Handler Except Exceptions Raise an exception User defined exception</p> <p>Session 11 Accessing Internet Data with Python Manipulating XML with Python</p>
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<p>Activities & Projects</p> <p><u>Activities</u></p> <p>Installing different libraries of Python</p>	<p><u>Project</u></p> <p>Random Password Generator</p> <p>QR Code Generator</p> <p>Alphabetical Letter Pattern creation</p> <p>Sending Email or Whatsapp messages via Python code</p> <p>Speech Recognition</p> <p>Quiz Game</p> <p>File Handling Project</p> <p>Final Project Discussion</p>
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Note

Eisystems Technologies reserves complete right to alter/modify above mentioned course by deleting or adding sessions in it at the time of delivery of training and attendee will not be having any issue in it as this modification/alteration can be done without any prior notification to attendee/student.

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