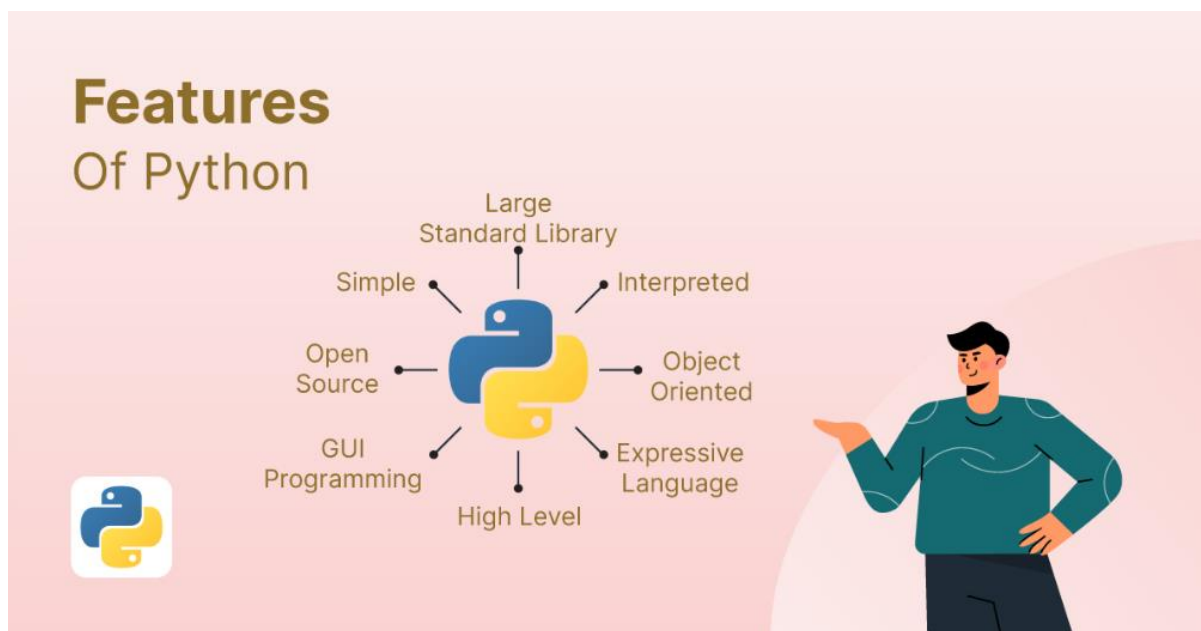


Python Features

Python is a dynamic, high-level, free open source, and interpreted programming language. It supports object-oriented programming as well as procedural-oriented programming. In Python, we don't need to declare the type of variable because it is a dynamically typed language. For example, `x = 10` Here, `x` can be anything such as String, int, etc. In this article we will see what characteristics describe the python programming language.



Features in Python

In this section we will see what are the features of Python programming language:

1. Free and Open Source

Python language is freely available at the official website and you can download it from the given download link below click on the Download Python keyword. Download Python Since it is open-source, this means that source code is also available to the public. So you can download it, use it as well as share it.

2. Easy to code

Python is a high-level programming language. Python is very easy to learn the language as compared to other languages like C, C#, Javascript, Java, etc. It is very easy to code in the Python language and anybody can learn Python basics in a few hours or days. It is also a developer-friendly language.

3. Easy to Read

As you will see, learning Python is quite simple. As was already established, Python's syntax is really straightforward. The code block is defined by the indentations rather than by semicolons or brackets.

4. Object-Oriented Language

One of the key features of Python is Object-Oriented programming. Python supports object-oriented language and concepts of classes, object encapsulation, etc.

5. Interpreted Language:

Python is an Interpreted Language because Python code is executed line by line at a time. like other languages C, C++, Java, etc. there is no need to compile Python code this makes it easier to debug our code. The source code of Python is converted into an immediate form called bytecode.

6. Large Standard Library

Python has a large standard library that provides a rich set of modules and functions so you do not have to write your own code for every single thing. There are many libraries present in Python such as regular expressions, unit-testing, web browsers, etc.

7. Dynamically Typed Language

Python is a dynamically-typed language. That means the type (for example- int, double, long, etc.) for a variable is decided at run time not in advance because of this feature we don't need to specify the type of variable.

8. Frontend and backend development

With a new project py script, you can run and write Python codes in HTML with the help of some simple tags <py-script>, <py-env>, etc. This will help you do frontend development work in Python like javascript. Backend is the strong forte of Python it's extensively used for this work cause of its frameworks like Django and Flask.

Top 10 Python Applications in Real World



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Top Python Applications in Real World

Python has been at the forefront of Machine learning, Data Science, and Artificial Intelligence innovation. Further, Python applications offers provides ease in building a plethora of apps, web development processes, and a lot more. In this blog, we will discuss the top 10 Python applications in the real world in a detailed manner. So let's get started:

1. Web Development

It is one of the most astonishing applications of Python. This is because Python comes up with a wide range of frameworks like Django, Flask, Bottle, and a lot more that provide ease to developers.

2. Machine Learning and Artificial Intelligence

Machine Learning and Artificial Intelligence are the hottest subjects right now. Python along with its inbuilt libraries and tools facilitate the development of AI and ML algorithms. Further, it offers simple, concise, and readable code which makes it easier for developers to write complex algorithms and provide a versatile flow.

3. Data Science

Data science involves data collection, data sorting, data analysis, and data visualization. Python provides amazing functionality to tackle statistics and complex mathematical calculations. The presence of in-built libraries provides convenience to data science professionals. Some of the popular libraries that provide ease in the data science process are TensorFlow, Pandas, and Socket Learning. These libraries provide an ecosystem for fine-tuning data models, data preprocessing, and performing complex data analysis.

4. Game Development

With the rapidly growing gaming industry, Python has proved to be an exceptional option for game development. Popular games like Pirates of the Caribbean, Bridge Commander, and Battlefield 2 use Python programming for a wide range of functionalities and add-ons. The presence of popular 2D and 3D gaming libraries like pygame, panda3D, and Cocos2D makes the game development process completely effortless.

5. Audio and Visual Applications

Audio and video applications are undoubtedly the most amazing feature of Python. Python is equipped with a lot of tools and libraries to accomplish your task flawlessly. Applications that are coded in Python include popular ones like Netflix, Spotify, and YouTube.

6. Software Development

Python is just the perfect option for software development. Popular applications like Google, Netflix, and Reddit all use Python. Apart from these Python offers enhanced features to work with rapidly growing technologies like Machine learning and Artificial intelligence. All these embedded features make it a popular choice for software development.

7. CAD Applications

CAD refers to computer-aided design; it is the process of creating 3D and 2D models digitally. This application has replaced manual draft and is used by architects, product designers, and construction managers to design products with extremely high consistency. Python is embedded with amazing applications like Blender, FreeCAD, open cascade, and a lot more to efficiently design products. These provide enhanced features like technical drawing, dynamic system development, recordings, file export, and import.

8. Business Applications

Python offers excellent security and scalability features that make it perfect for delivering high-performance business applications. It has inbuilt libraries and tools like:

Odoo is business management software that provides you with an automated solution for your business process.

Tryton is easy-to-use open-source business software. It has fully integrated features like financial accounting, sales, CRM, purchasing, shipping, and the list goes on. All these distinguishing features make it fit for creating business applications.

9. Desktop GUI

Python is an interactive programming language that helps developers to create GUIs easily and efficiently. It has a huge list of inbuilt tools for Python usage are PyQt, kivy, wxWidgets, and many other libraries like them to build a fully functional GUI in an extremely secure and efficient manner.

10. Web Scraping Application

Web scraping is an automated process used to extract information from websites in an easier and faster way. The information is used by researchers, organizations, and analysts for a wide variety of tasks.

