



Everything you need to know about Web development in Python



Python is a popular programming language known for its simplicity, readability, and versatility. It is an interpreted language executed line by line rather than compiled. This makes writing and testing code more accessible, reducing turnaround time, and we get the app quickly. Python can be used for various applications, including web development, data analysis, artificial intelligence, automation, and web scraping. Python has considerable community support which conducts good virtual events. Pycon is one of the popular events that happen around the world.

Django, Flask, FastAPI, CherryPy, etc., are popular Python frameworks widely used for Python web development. Various libraries can be used in any framework to speed up development.

Python's popularity in web development

"Building a scalable application using Python is impossible" is a myth. Many popular applications across different domains are built using Python. Let's see how Python fares in building different kinds of applications.

Many companies prefer web development using Python. The most popular application built using Python is Instagram. It supports around 500 million users daily, which scraps the fact

that Python needs to be more scalable. Another example in the field of entertainment would be Spotify.

Reddit and Quora are the most sought community platforms, and they are built using Python. Quora was built using the Django framework.

Regarding cloud storage, Dropbox has weight and is built using Python. A few applications built using other tech were later moved to Python, of which Youtube is a good example.

Advantages of Using Python for Web Development

Now that we know what Python is let's look at the benefits of using Python in web development. Let us understand why developers prefer Python in web programming.

Readability and simplicity

For someone wanting to enter the programming world, Python is a go-to language. The syntax is straightforward. It requires fewer words and fewer lines of code to build applications. Since it is simple to write, it also makes it easy to read. This helps Python developers easily maintain the code. This also helps in debugging any issue quickly compared to other languages.

Scalability

Programmers can build monolithic as well as serverless applications using Python. So they can select the style based on their needs for application scalability. Python also supports asynchronous programming to handle concurrent requests that may be required in any application.

Rich ecosystem

Python developers also have a vast source of libraries to select for web development with Python. Python Package Index (PyPI) is a repository of libraries of Python software. PyPI contains more than 450,000 projects, and the number is increasing daily. Apart from libraries, there are various frameworks available for Python web app development. Django, Flask, FastAPI, etc., are popular frameworks for Python web programming.

Versatility

Python supports object-oriented, functional, and procedural programming. It is also cross-platform compatible, which means it can be used in almost any operating system. Python can also run on small systems such as raspberry pi, making it one of the most versatile programming languages. Because of Python's versatility, it is used for rapid prototyping and experimentation.

Strong community support

Strong community support is one of the main reasons for python's popularity. The community has a large number of members from all over the world. If one is stuck developing any feature, one can get quick support from the community. Moreover, there might be a possibility that someone already has a solution to the problem.

Python Web Frameworks

So far, we learned about Python, What web programming is in Python, and its advantages. Let's get to the part on How to use Python for web development. We know there are multiple frameworks in Python. We will take a look at a few of those next.

Django

It is a Fullstack framework and the preferred choice for most organizations and developers as it includes most things by default. Django follows the Model View Controller architecture pattern. Any non-technical person can add or delete data from the app with Django's inbuilt admin module.

Django developers use the ORM layer to simplify database interactions rather than writing raw SQL queries.

Flask

Flask is a microframework used for small applications. Unlike Django, Flask does not contain a database abstraction layer. It is a very minimal framework. Developers can use any external package conveniently rather than relying on inbuilt functionalities.

For someone who wants to start Python web development, Flask can be a perfect starting point for web development with Python.

It is also a popular framework in the data science community to deploy machine learning models in Production.

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