

## **PYTHON - A POPULAR PROGRAMMING LANGUAGE:**

- When **Guido van Rossum** was creating python in the 1980s, he made sure to design it to be a general-purpose language. One of the main reasons for the popularity of python would be its simplicity in syntax so that it could be easily read and understood even by amateur developers also.
- Python was created more than 30 years ago, which is a lot of time for any community of programming language to grow and mature adequately to support developers ranging from beginner to expert levels.
- There are plenty of documentation, guides and Video Tutorials for Python language are available that learner and developer of any skill level or ages can use and receive the support
- The python language is one of the most accessible programming languages available because it has simplified syntax and not complicated, which gives more emphasis on natural language.
- Due to its ease of learning and usage, python codes can be easily written and executed much faster than other programming languages.

## **FRAMEWORKS USED WITH PYTHON:**

### **1. DJANGO**

Django is an open-source, full-stack Python framework. It follows the DRY (Don't Repeat Yourself) principle. Django comes equipped with a vast line of ready-to-use libraries. Some of its most exceptional features are authentication, URL routing, template engine, object-relational mapper (ORM), and database schema migrations. Together, these make Django highly scalable, fast, and versatile.

### **2. PYRAMID**

Another open-source Python framework on our list is Pyramid. It runs on Python 3 and aims to accomplish as much as possible with minimal complexity. Perhaps the best feature of Pyramid is its ability to run well with both small and large applications. Some of the key highlights of this framework include Routes, HTML form validation and generation, text-based templating, URL mapping based on Routes configuration via WebHelpers, and URL dispatch.

### **3. TURBOGears**

TurboGears is an open-source, data-driven, full-stack Python framework. It incorporates some of the best components of other Python frameworks and comes with many useful libraries. It allows developers to build data-driven web applications very fast.

### **4. WEB2PY**

Web2py is a highly scalable, open-source full-stack Python framework. It comes with its individual web-based IDE that includes a code editor, debugger, and a one-click deployment feature.

### **5. CHERRYPY**

CherryPy is one of the oldest open-source, object-oriented Python microframeworks. Following a minimalistic approach, CherryPy is designed for extensibility. It includes mechanisms for hook points and extensions. Moreover, the “cherry” on top is that any CherryPy-based web application is a standalone Python application having its unique embedded multi-threaded web server.

### **6. FLASK**

Flask is a Python microframework available under the BSD license. It drew inspiration from the Sinatra Ruby framework. Flask requires Jinja2 template and Werkzeug WSGI toolkit to run. It has a lightweight and modular design that makes it easily adaptable to a wide range of development needs.

### **7. SANIC**

Sanic is an Asynchronous framework built on top of uvloop. It is a simple Python framework developed explicitly for offering fast HTTP responses via asynchronous request handling. Since Sanic supports asynchronous request handlers, it is compatible with Python 3.5's ‘Async’ and ‘Await’ functions. This helps to enhance its speed further.

### **FULL FORM OF WSGI:**

- WSGI stands for "Web Server Gateway Interface".
- It is used to forward requests from a web server (such as Apache or NGINX) to a backend Python web application or framework.