

Strengths and Weaknesses of Python

Every programming language has some strengths as well as weaknesses, so does Python too.

Strengths

According to studies and surveys, Python is the fifth most important language as well as the most popular language for machine learning and data science. It is because of the following strengths that Python has –

Easy to learn and understand – The syntax of Python is simpler; hence it is relatively easy, even for beginners also, to learn and understand the language.

Multi-purpose language – Python is a multi-purpose programming language because it supports structured programming, object-oriented programming as well as functional programming.

Huge number of modules – Python has huge number of modules for covering every aspect of programming. These modules are easily available for use hence making Python an extensible language.

Support of open source community – As being open source programming language, Python is supported by a very large developer community. Due to this, the bugs are easily fixed by the Python community. This characteristic makes Python very robust and adaptive.

Scalability – Python is a scalable programming language because it provides an improved structure for supporting large programs than shell-scripts.

Weakness

Although Python is a popular and powerful programming language, it has its own weakness of slow execution speed.

The execution speed of Python is slow as compared to compiled languages because Python is an interpreted language. This can be the major area of improvement for Python community.