

# PYTHON

**Python** is an interpreted, object-oriented, high-level programming language with dynamic semantics. Its high-level built in data structures, combined with dynamic typing and dynamic binding, make it very attractive for **Rapid Application Development**, as well as for use as a scripting or glue language to connect existing components together. Python's simple, easy to learn syntax emphasizes readability and therefore reduces the cost of program maintenance.

- Introduction to Programming
- Introduction to Python
- Software installation
- Basic output Generation
- Working with Python Datatypes, Variables
- Numeric Operations in Python
- Python String Types
- Working with Sequence Variable Types
- Lists and Tuples and methods
- Python Dictionaries and methods
- Python control structures
- Logical Programs using control statements
- Function and types of functions
- Python Modules creation
- Built-in modules(Time, Datetime, Random, Math, Statistics, Calendar, turtle etc)
- Exception Handling
- Working with Files
- File creation, File Read , File Write, File Copy
- Understanding Iterators
- File handling with os and shutil modules
- Object Oriented Python and features
- Fun With Objects
- Inheritance and types
- Overriding Inherited Methods
- Pythonic Programming (Lambda Functions)
- SQL
- Python integration with SQL
- Console Sample Project with Database
- Regular Expressions (RE Objects)
- GUI Introductions using Tkinter module
- GUI designs and Layouts Examples
- GUI with event handling
- GUI sample project with Database
- Serializing Objects (Pickling)
- Introduction to Web



- Working with CGI
- Sending Mails
- Sample Project with Web
- Web Parsing using beautifulsoup modules