Chapter 1

Introduction to Python

In this chapter, you will learn about

- What is Python?
- What is IDE?
- Python IDE
- Python Source Code
- What is LiClipse?
- Create a New Project
- Create a New Python File
- Hello World Program
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❖ What is Python?

Python is an general-purpose, 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 is a Programming Language.

- ✓ Python is Interpreted Language

  Python is an interpreted language, meaning that programs written in Python don't need to be compiled in advance in order to run

- ✓ Python is dynamic.

- ✓ Python is Object Oriented

- ✓ Python is Open Source

- ✓ Python is Small

- ✓ Python is Extensible

- ✓ Multiple Programming Paradigms

- ✓ Compatible with Major Platforms and Systems

- ✓ Robust Standard Library

- ✓ Simplify Complex Software Development

- ✓ Adopt Test Driven Development

❖ What is IDE?

IDE – Integrated Development Environment. It is software suite. It contains various tools for developers to write and test applications.

Software Developers use wide range of tools frequently throughout application source code creation, building and application testing. Software Development tools often include text editors for source code creation, code libraries for reuse, compilers and test platforms.

Without an IDE, a software developer must select, deploy, integrate and manage all of these tools separately. An IDE brings many of those development-related tools together as a single framework, application or service. The integrated toolset is designed to simplify software development and can identify and minimize coding mistakes and typos.

❖ Python IDE

- ✓ Komodo

- ✓ NetBeans

- ✓ PyCharm

    ✓   Python for Visual Studio.NET

    ✓   PyDev

    ✓   PyStudio

    ✓   **LiClipse (Eclipse)**

❖ What is LiClipse?

LiClipse is a set of plugins to enhance Eclipse.

It improve the overall Eclipse experience.

It is best IDE tool to develop Python Applications.

❖ Python Source Code

Python source files use the ".py" extension.

These are called Modules.

❖ Python Comments

A comment in a computer program is text that is intended only for the human reader.

It is completely ignored by the interpreter.

Python supports two types of comments.

    1.   Single Line Comment
    2.   Multi Line Comment

Python Comments : Single Line

In Python, the # token starts a comment.

The rest of the line is ignored.

Python Comments : Multi Line

In Python, the multi line comment starts and ends with ''' three quotes.

Whatever inside the quote is ignored.