Introduction to Python

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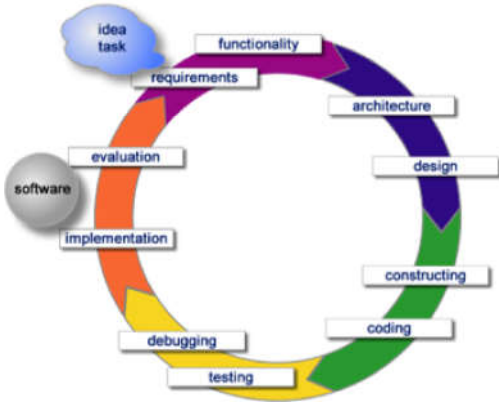
A computer is a tool that can perform tasks

A computer needs instructions to be able to do so

Programming is the process of developing and implementing a sequence of instructions to perform a task

A programming language is a vocabulary with a number of grammar rules for instructing a computer to perform specific tasks.

2. Program development cycle

1. Analyze: understand & define the problem, collect requirements, ideate a solution, describe the functionalities
2. Design: how to solve the problem, design the program, define algorithms
3. Code: express solution in the programming language
4. Test: locate and remove errors in the program
5. Deliver: create the final package, document and evaluate
6. Update: create a new version on basis of user response and new ideas. Go through the cycle again

3. Programming vs Scripting

A programming language is a formal language designed to communicate instructions to a computer.

A scripting language is a programming language that is interpreted by another program at runtime, one step at the time.

Python is a scripting language.

4. Python

- a widely used general-purpose, high-level programming language
- an interpreted, interactive, object-oriented scripting language
- a portable language: it runs on Linux, Windows, OS/2, MacOS, and many other platforms
- a language created by Guido van Rossum

- a free language

5. Presentation

Recorded Lecture:

- [Introduction to Python](#)

Presentation

- Slides: [SL_ISC_01_introduction_to_python](#)