合肥大學
HEFEI UNIVERSITY

Programming with Python

Introduction

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Programming with Python

This is a course on programming with the Python language at Hefei University (合肥大学).

The website with the teaching material of this course is https://thomasweise.github.io/programmingWithPython (see also the QR-code at the bottom right). There, you can find the course book and these slides. The repository with the example Python programs can be found at https://github.com/thomasWeise/programmingWithPythonCode.

Outline

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- So we want that the computer does it for us.

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- In this book, you will learn to do the same — with computers.

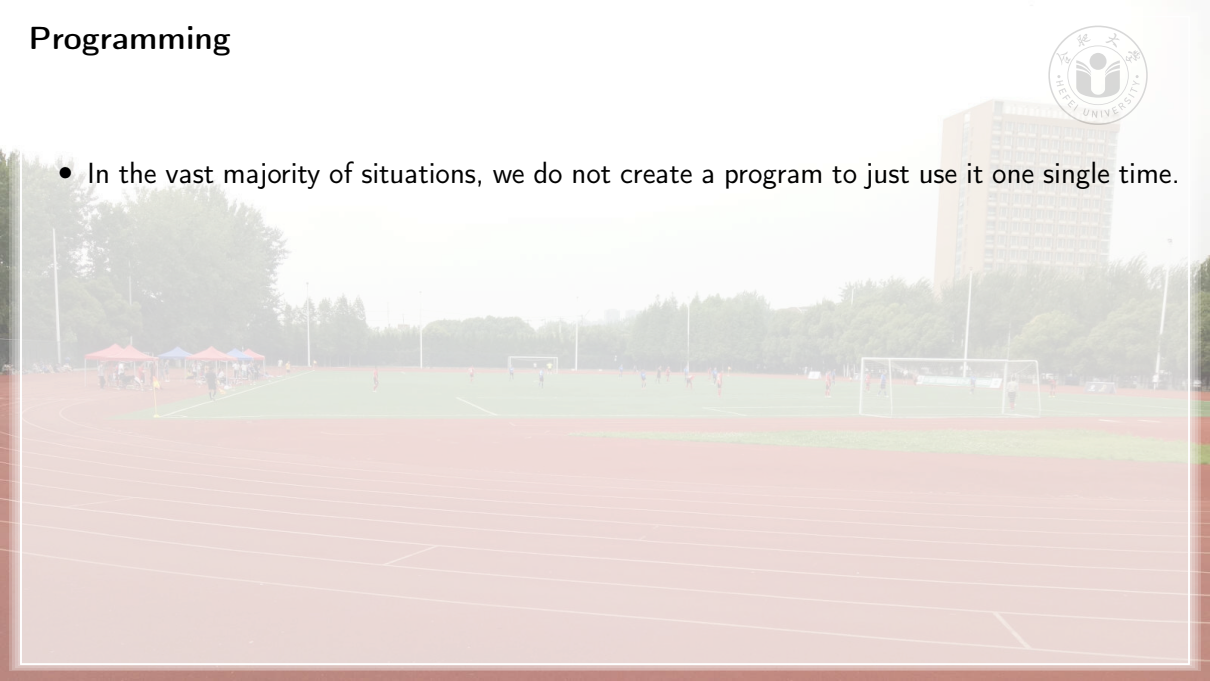
Programming vs. Software Development

Programming

Definition (Computer Program) A *computer program* is an unambiguous sequence of computational instructions for a computer to achieve a specific goal.

Definition (Programming) *Programming* is the activity or job of writing computer programs[19].

Programming



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- Our "programs" often even have implicit parameters, like the quantity of 2kg mentioned above.
- Maybe you go to the hairdresser again and want to say: "Same as usual, but today color it blue."

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- Therefore programming is only one part of software development.

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- All of these things must be considered!

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- I do not want to go to a surgeon who does not wash their hands before operating on me.
- And I will not teach you programming without emphasizing code cleanliness.

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- Our course is on developing good software with Python.

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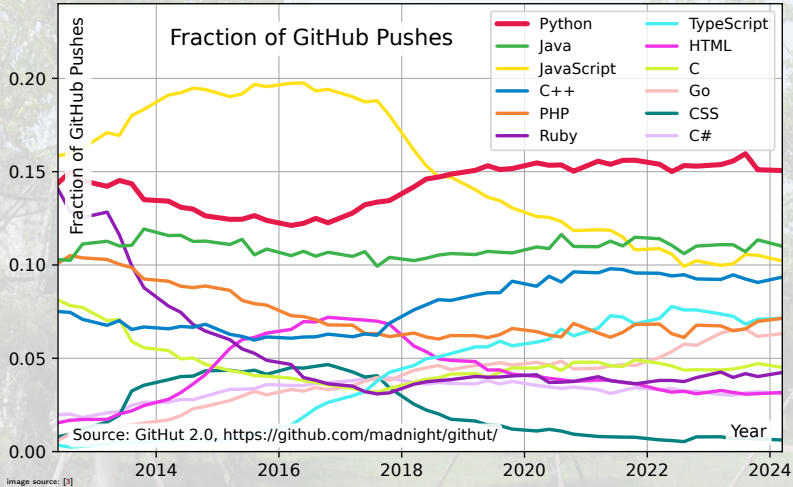

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4. Python is very easy to learn[7,23]. It has a simple and clean syntax and enforces a readable structure of programs. Python has expressive built-in types likes lists, tuples, and dictionaries.

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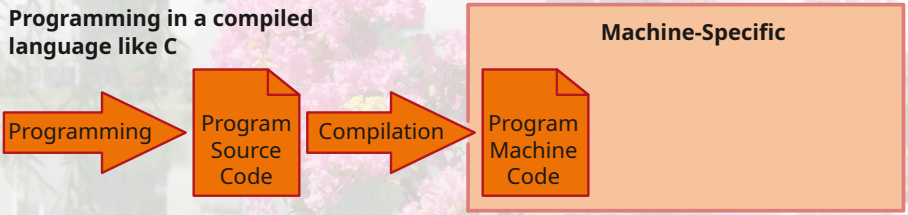

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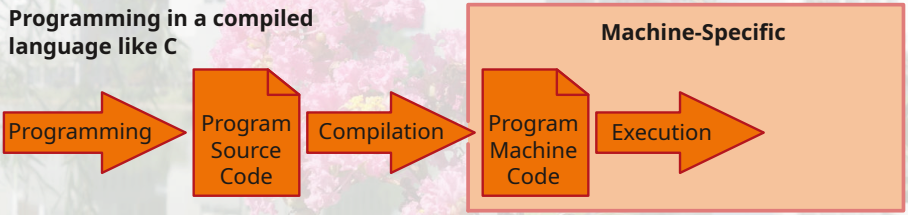

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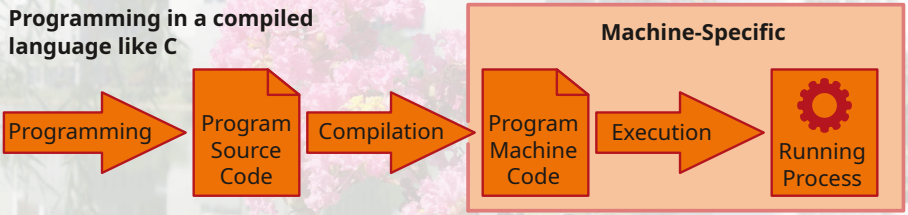

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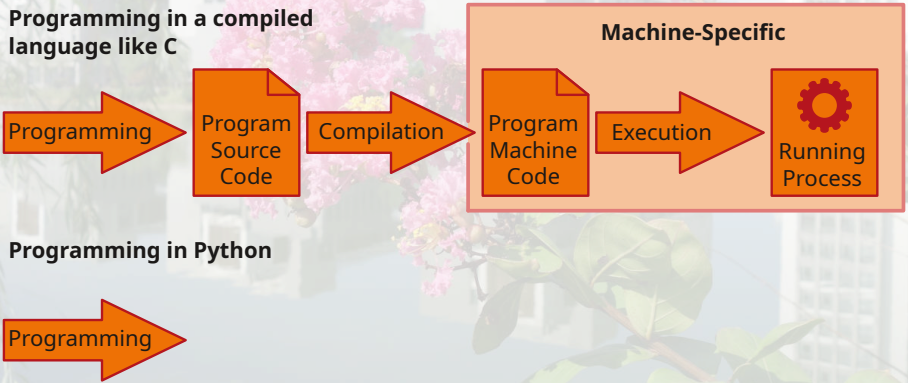

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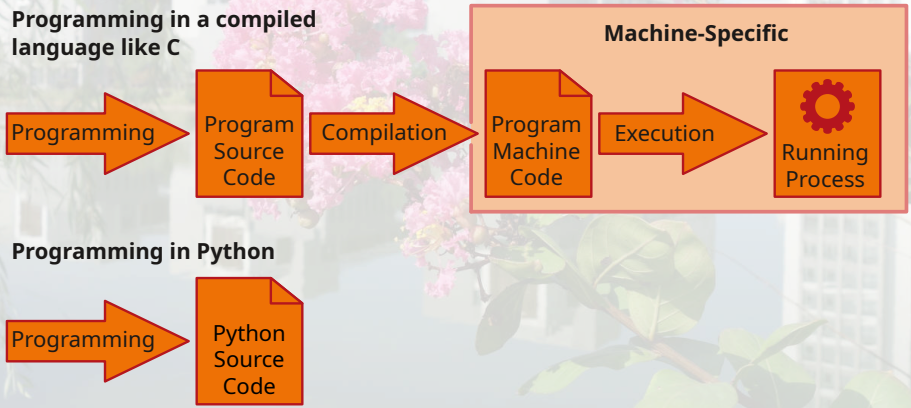

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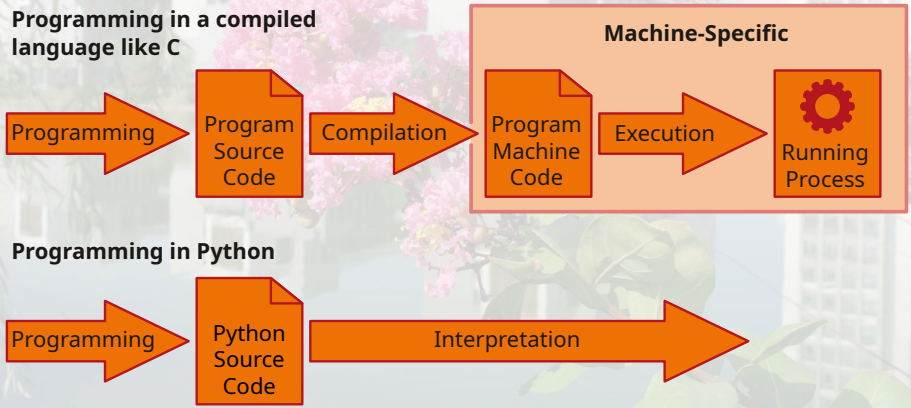

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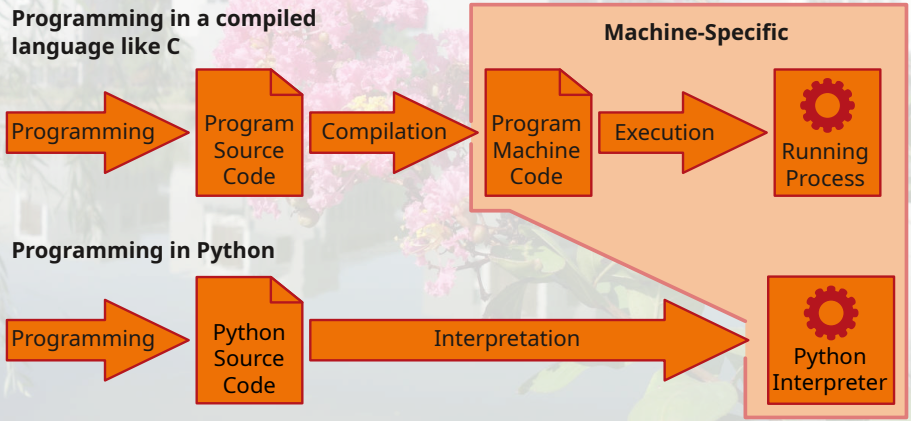

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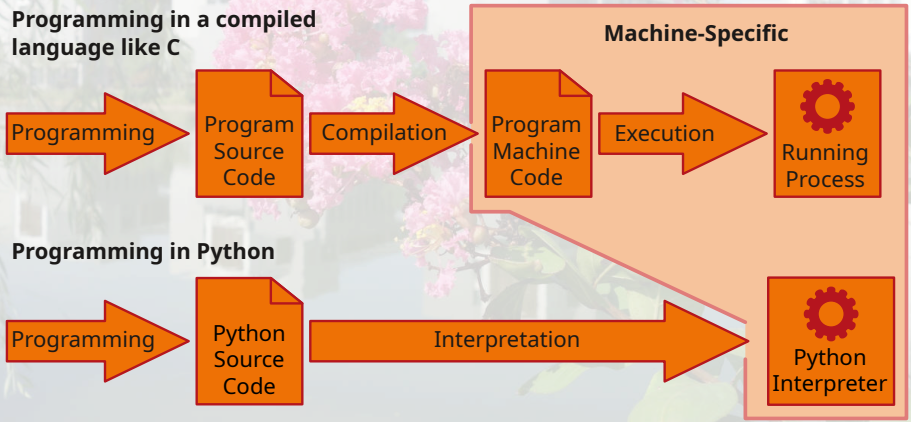
- So there are fewer steps in the build process.



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谢谢您们

Thank you

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