



C



C

What languages do y'all know?

# Why learn C?

- Get some exposure to a “low-level” language
- Bolster your understanding of what “higher-level” languages do
- Learn a little about system programming – interacting with OS
- ***Really understand memory management***

# Language differences – Compiling and running code

Three main categories:

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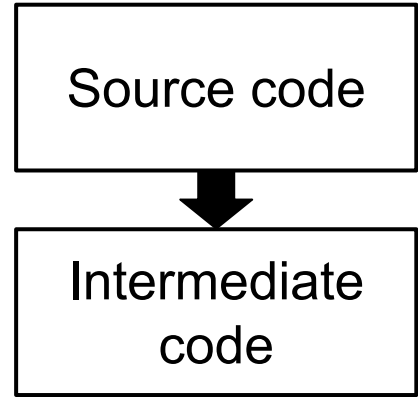


Source code

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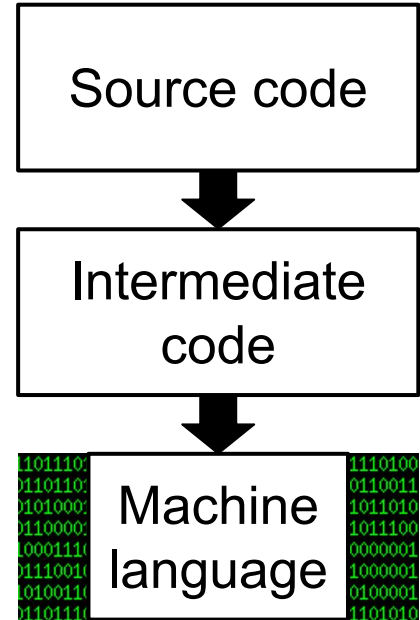
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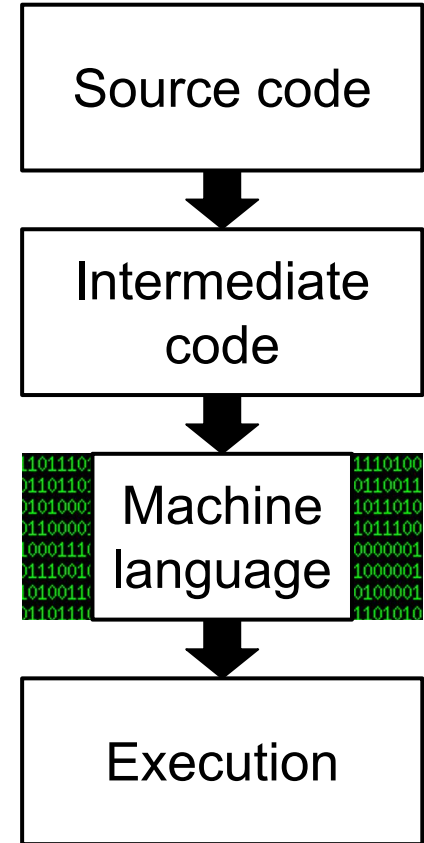
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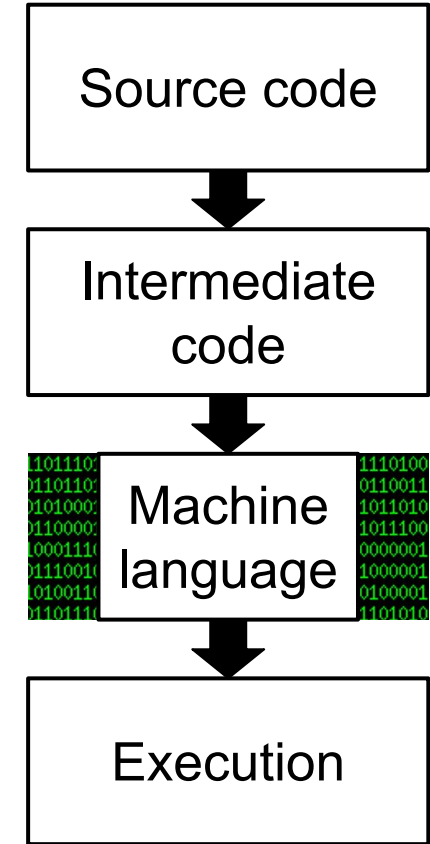
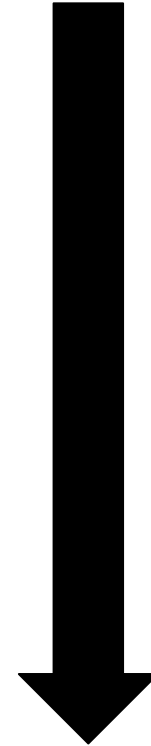


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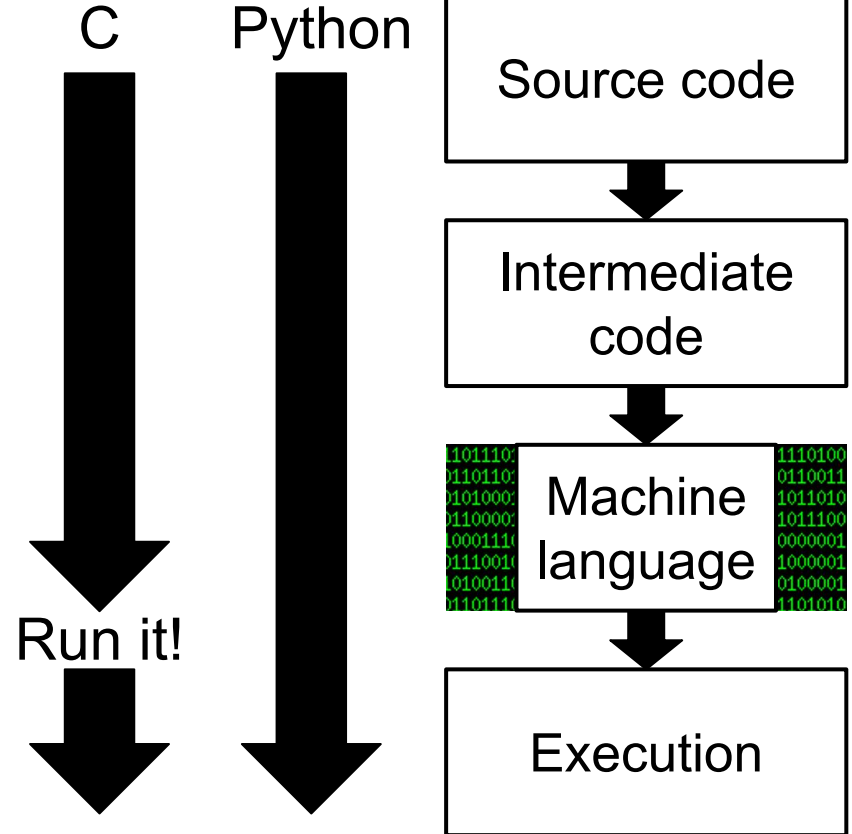
Python



# Language differences – Compiling and running code

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javac



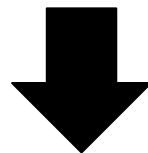
java



C



Run it!



Python



Source code



Intermediate  
code



Machine  
language



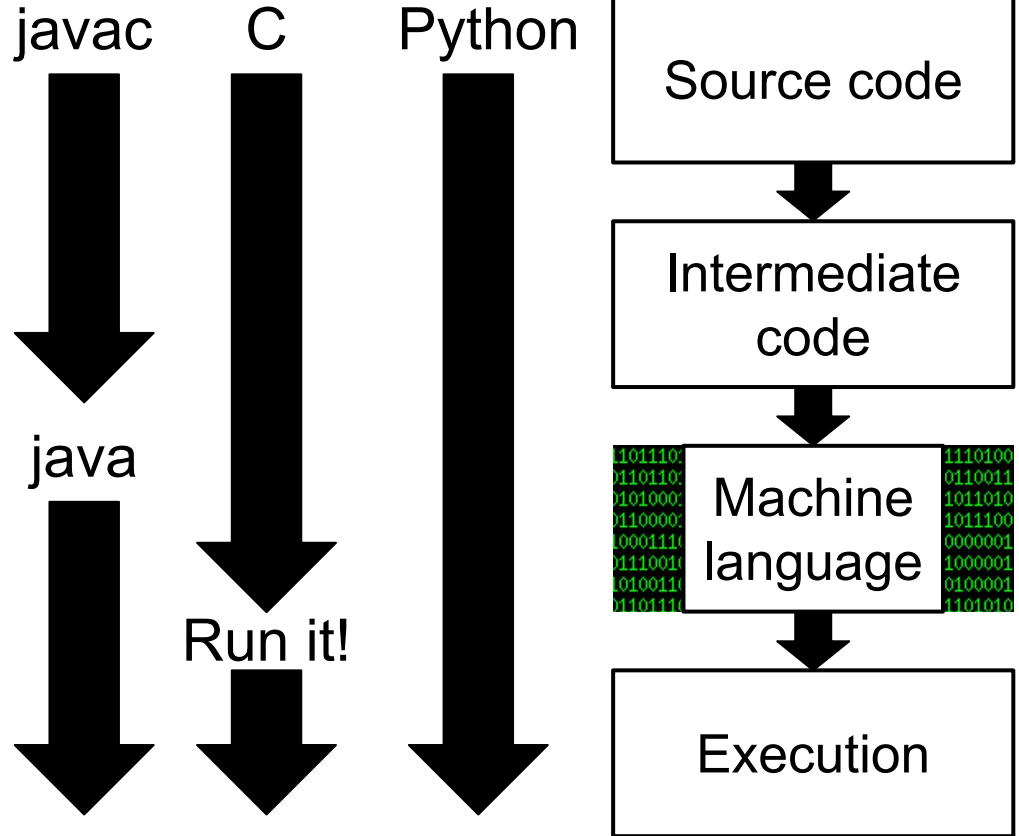
Execution

# Language differences – Compiling and running code

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What about other languages?





# Language differences – Speed

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C is can be way faster than Python

The fast parts of Python are written in C/C++

# Language differences – Speed

C is can be way faster than Python

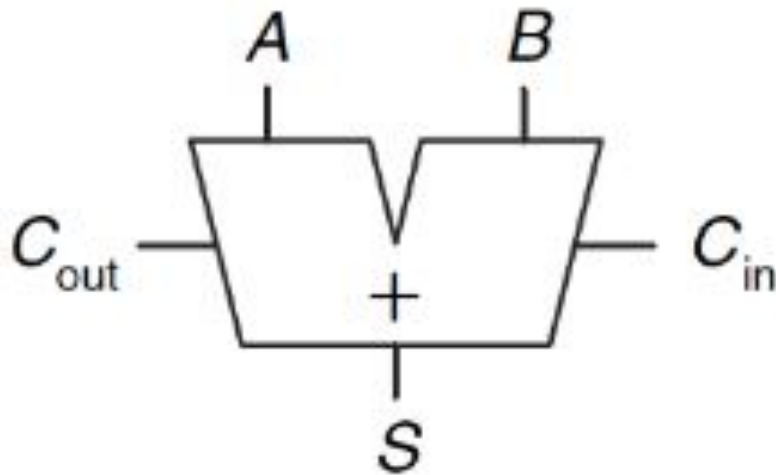
The fast parts of Python are written in C/C++

Java falls between them, but can be very fast!

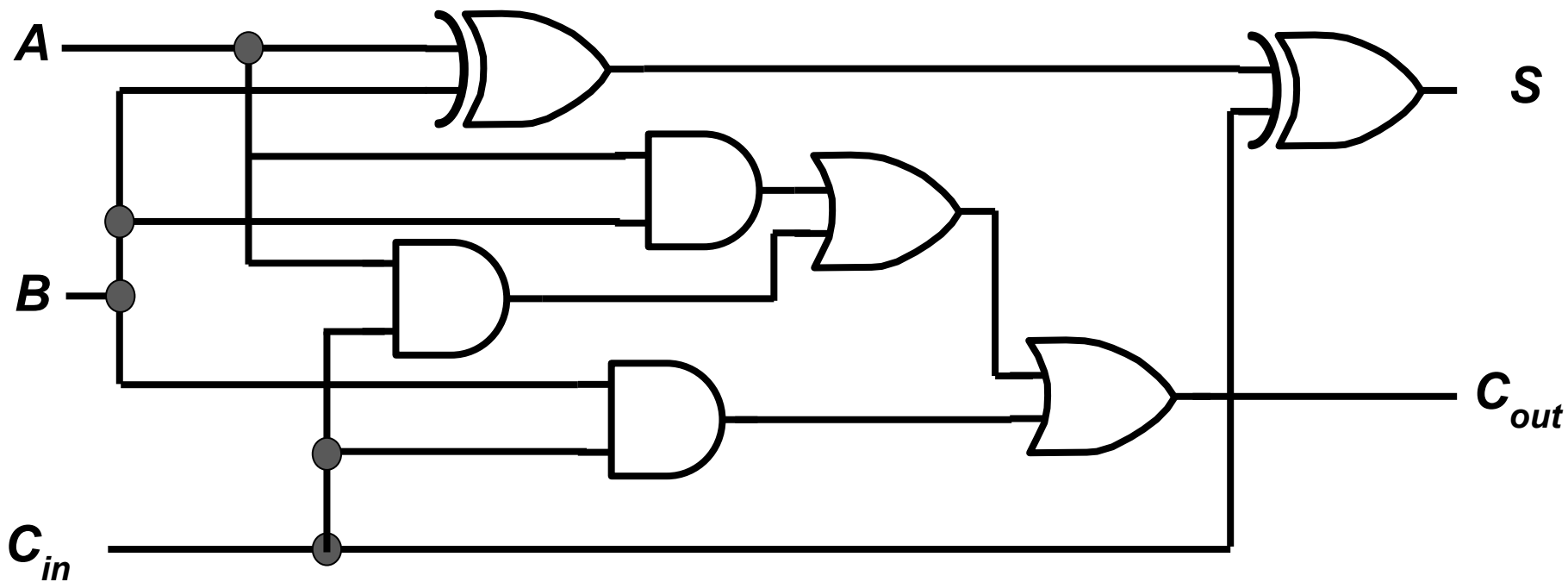
So why choose one over the other?

What about C++?

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What about C++?



# What about C++?

- C++ is *almost* an extension to C
- C++ is designed to be object-oriented
  - C is “just” procedural
- Labels are confusing
- Understanding C will translate to C++
- Learning C++ kind of translates to C...



Why is it called C?

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Per wikipedia:

A successor to the programming language B,