

WHAT IS PROGRAMMING & What Do Programmers Do?



What Is Programming?

Writing very specific instructions to a dumb, yet obedient machine.

When you ask a human to serve you coffee...

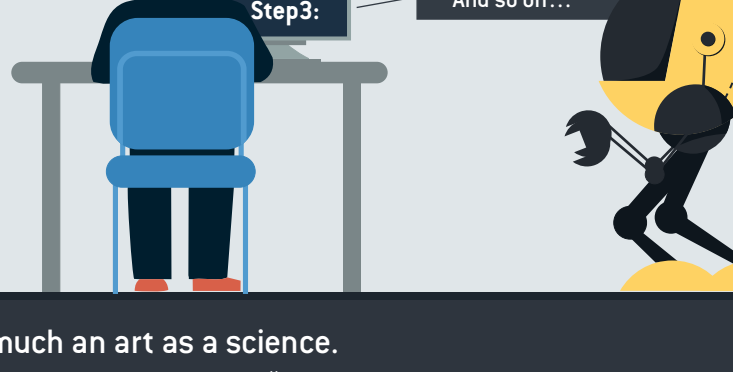
Example:

When you ask a robot to serve you coffee...

He or she will understand (smart!), but may reject you (not so obedient)



You need to write very detailed instructions.



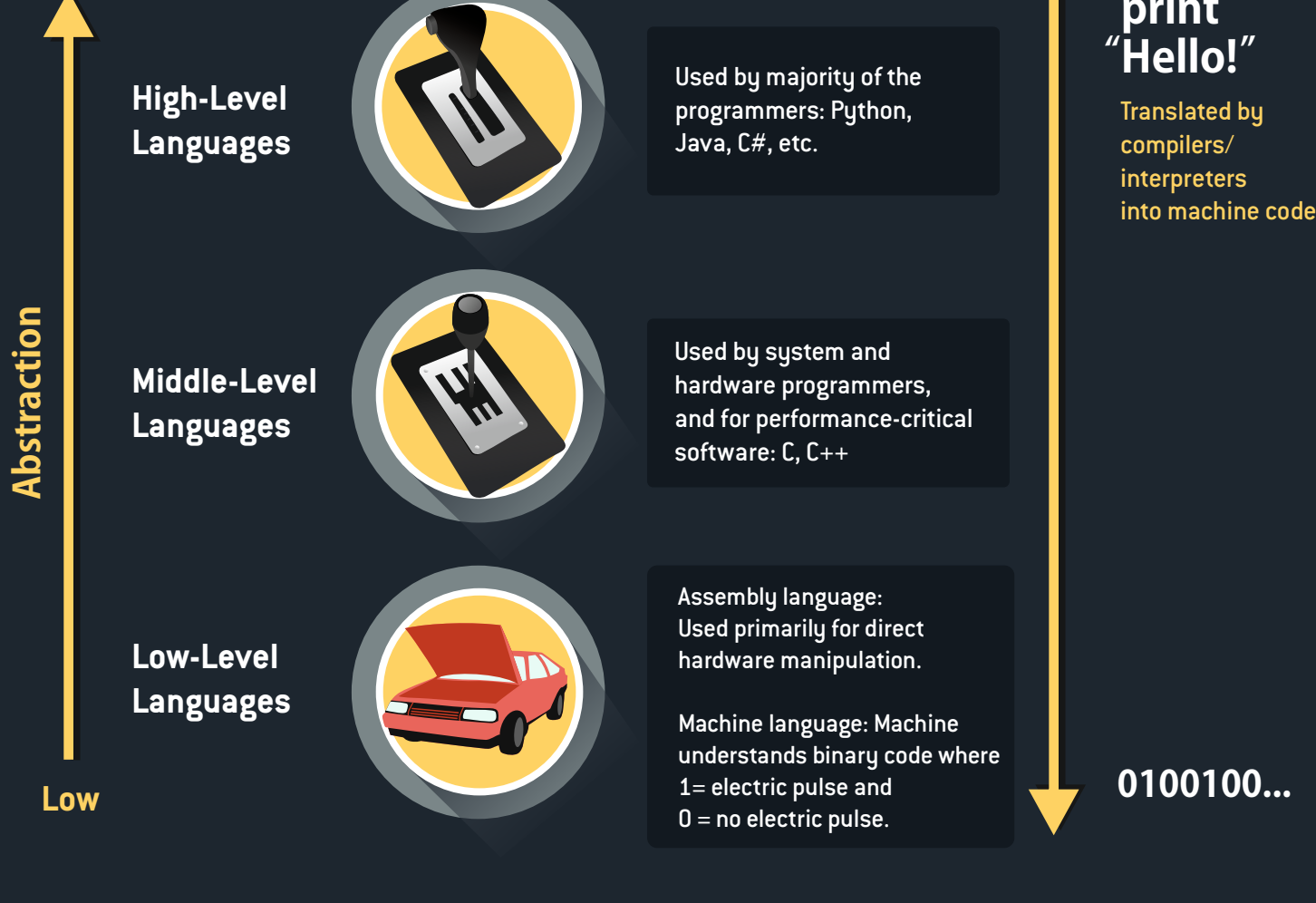
Keep walking at the speed of 1 m/s until you reach the water jug.
Once you reach there, raise your arm to the jug handle, and grip it.
And so on...

Programming is as much an art as a science.
You're creating something out of nothing, and there's no "right" way of doing it.

How Does a Computer Program Work?

Car Analogy to Abstraction

You drive [code] without having to understand its underlying concepts.



Is Programming For Me?

You should've at least 2 - 3 "YES" on these questions:

1. Are you fascinated by logic puzzles and riddles?

2. Are you willing to learn new things and most of the time by your own?

3. Do you have the patience and resilience to solve tough problems?

4. Are you naturally curious about how things actually work?

So What Do Programmers/Developers/Software Engineers Do?

1 Design, write, test, document and maintain software.

2 Work as a team, which normally involves client and manager.

What Programmers Don't Do?

1 Fix your computer and internet connection.

2 Hack your friend's computer.

What are the struggles and frustrating things about programming?

1 Bang wall moment is completely normal. Sometimes your code doesn't work as you thought it would.

2 Sometimes there's crunch time and you have to work late to meet deadlines.

3 Fixing and maintaining other people's code (if it's badly written).

4 Attend unnecessary meetings.

5 Software development time estimation is regularly off by a factor of 2 – 3, due to vague software requirements, unexpected problems, increasing complexity, etc.
a. If software development is a race:

What I Thought
Marathon

What It Actually Is
Obstacle Course

You accidentally took the wrong route.
The finish line suddenly changes.
You get injured.
Your friend suddenly quits.

6 Fixing mysterious bugs.
a. Imagine you're a software engineer at NASA. One day you're told to fix a bug that occurred 777 days ago, when Mars and Earth last aligned. The cause is unknown:

Solve the bug!

The code containing the bug is written by a retired NASA scientist years ago.

Take 15 minutes to transmit signal

Only occurs when atmospheric pressure is 501.53 Pa and temperature is -189.75 F.

2 more hours to align!

Based on Brian Schmitz's answer on Quora:
<http://www.quora.com/What-is-a-coders-worst-nightmare/answer/Brian-Schmitz>

Don't worry, this is just the combination of some worst case scenarios of a bug. Programming can be frustrating sometimes, but it can also be very rewarding.

Now, go to CarlCheo.com/StartCoding to pick your first programming language and start coding!



Presented by
CarlCheo.Com