What Do Programmers Do?

WHAT IS PROGRAMMING

Writing very specific instructions to a dumb, yet obedient machine.
He or she will understand (smart!), but may reject you (not so obedient)

Step 1:
Step 2:
Step 3:
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…

You need to write very detailed instructions.

How Does a Computer Program Work?

0100100...

0100100...

Is Programming For Me?

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

1. Design, write, test, document and maintain software.
2. 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.
3. When you ask a human to serve you coffee…
4. When you ask a robot to serve you coffee…

Car Analogy to Abstraction

Assembly language:
Used primarily for direct hardware manipulation.

Machine language: Machine understands binary code where 1 = electric pulse and 0 = no electric pulse.

High-Level Languages

print
Translated by compilers/interpreters into machine code
"Hello!"
Used by majority of the programmers: Python, Java, C#, etc.

Low-Level Languages

Used by system and hardware programmers, and for performance-critical software: C, C++

Middle-Level Languages

So What Do Programmers/Developers/Software Engineers Do?

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

Fix your computer and internet connection.

What Programmers Don't Do?

Hack your friend's computer.

What are the struggles and frustrating things about programming?

Bang wall moment is completely normal. Sometimes your code doesn't work as you thought it would.
Sometimes there's crunch time and you have to work late to meet deadlines.
Fixing and maintaining other people's code (if it's badly written).
Sometimes there's crunch time and you have to work late to meet deadlines.
Attend unnecessary meetings.

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

What I Thought
What It Actually Is
a. If software development is a race:
You accidentally took the wrong route.
Marathon
Obstacle Course
You get injured.
Your friend suddenly quits.

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

The finish line suddenly changes.

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:

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

Take 15 minutes to transmit signal 2 more hours to align!

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

Solve the bug!

4. Are you naturally curious about how things actually work?
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?
1. Are you fascinated by logic puzzles and riddles?

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