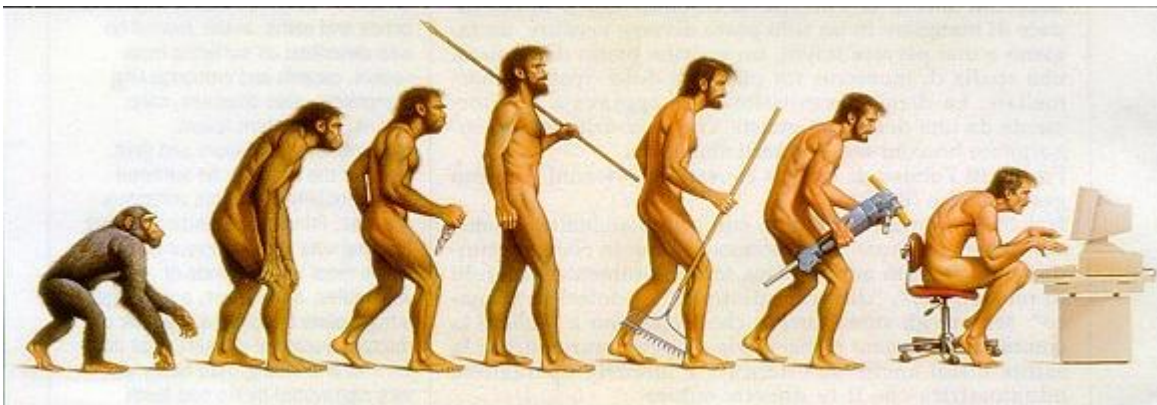# Welcome to Programming

This lesson defines all the basic terminologies to revise the elementary concepts.

> **WE'LL COVER THE FOLLOWING** ︿
>
> - What's a Program?

What's a Program?

- A computer is a machine whose role is to execute quickly and flawlessly a series of actions given to it

- A program is a list of actions given to a computer. These actions take the form of textual commands. All these commands form the program's *source code*

- The *programmer's* task is to create programs. To accomplish this goal, he can use different programming languages

- Before writing code, one must think ahead and decompose the problem to be addressed in a series of elementary operations forming an *algorithm*

Since their invention in the 1950s, computers have revolutionized our daily lives. Calculating a route from a website or a GPS, booking a train or plane ticket, or seeing and chatting with friends on the other side of the world; all

these actions are possible thanks to computers.

Let's take the term "computer" in its broadest sense, meaning a machine that can perform arithmetic and logical operations. It could mean either a desktop or laptop computer (PC, Mac), a computing server, or a mobile device like a tablet or smartphone.

Nonetheless, a computer can only perform a series of simple operations when instructed to do so. They normally have no ability to learn, judge, or improvise. They simply do what they're told to do! Their value comes from how they can quickly handle and process huge amounts of information.

A computer often requires human intervention. That's where programmers and developers come in! They write programs that result in instructions to a computer.

A computer *program* (also called an application or software) usually comprises one or more text files containing commands in the form of code. This is why developers are also called coders.

A *programming language* is a way to give orders to a computer. It's a bit like a human language! Each programming language has vocabulary (keywords that each play a specific role) and grammar (rules defining how to write programs in that language).