Python for Data Science

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Overview

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  - Different programming languages
  - Why Python?
- Module 1
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  - Arithmetic Operators
  - Programs to illustrate these concepts

- Module 2
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- Module 4
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Introduction

- Millions of financial transactions a day and controlling the infrastructure that makes modern life possible.
- But no computer can do anything until a computer programmer tells it to behave in specific ways. That's what computer programming is all about.

Basically computer *programming* is a set of *instructions* to facilitate specific actions.

Who are called as programmers?

- Computer *programmers* create *instructions* for a computer to execute by writing and testing code that enables applications and software programs to operate successfully.

Use of Programming

- Programming makes things easier for you
- To interact with machines and computers
- To harness the power of computing in all human works
- To automate tasks
- To create intelligent machines.

Different Programming Languages

- The first factor to consider when organizing these languages is **high-level** or **low-level.**

High-Level Programming Languages

- High-level coding languages have a higher level of abstraction.
- This means they are closer to human language, and farther from machine code. High-level languages are easier to learn and use

Low-Level Programming Languages

- Low-level coding languages have a lower level of abstraction, and as you might expect, are the opposite of high-level languages.
- They are closer to binary and farther from human language. Low-level languages are harder to learn and use

Programming Languages

C

- The C language is a basic programming language and it is a very popular language, particularly used in game programming, Because C language includes the additional packing of the C++

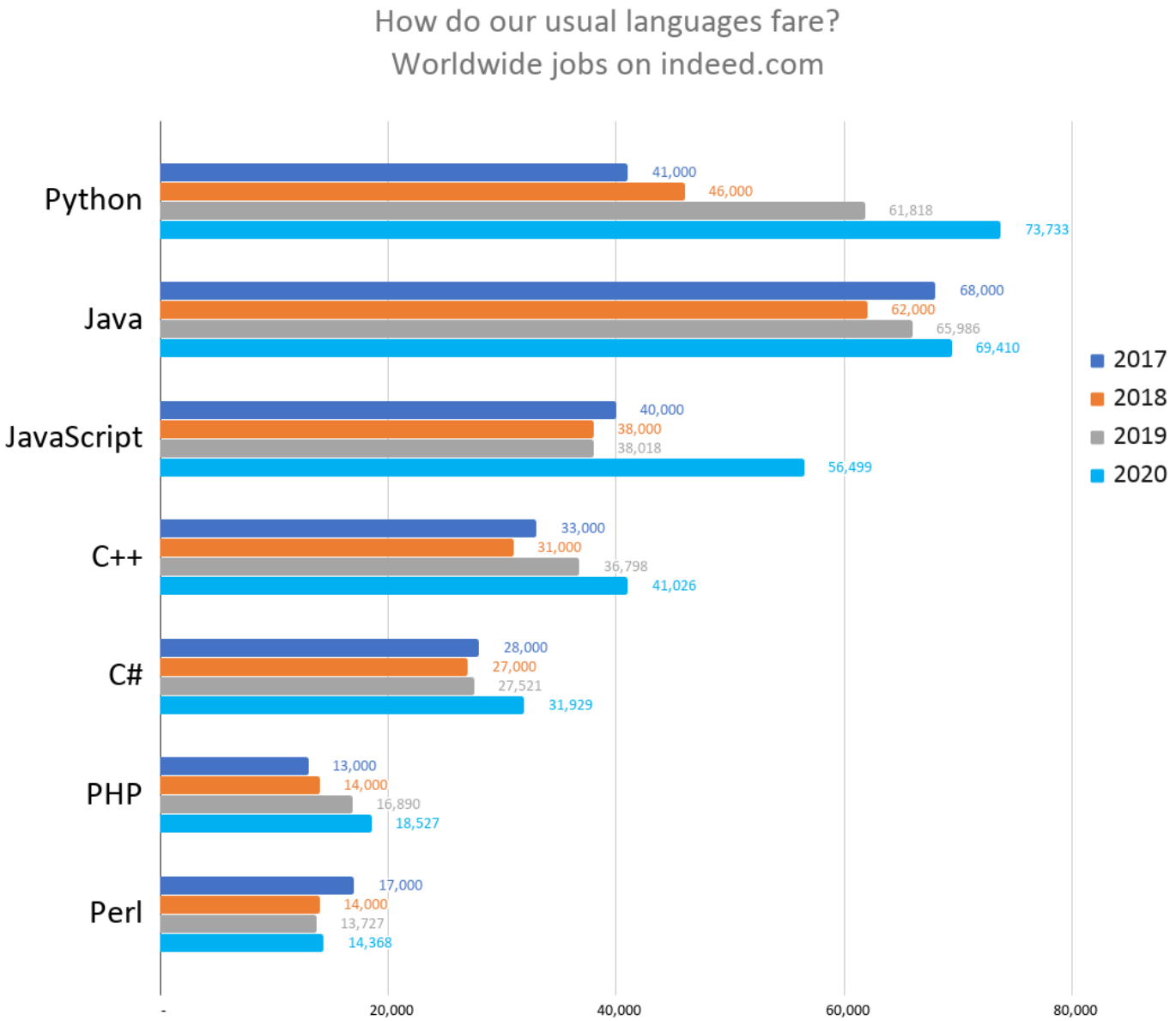
C++

- The C++ language has an object oriented structure which is used in large projects.

Java

- The Java language is a multi platform language that’s particularly helpful in networking.

Rube, Perl, PHP, JavaScript, R etc



COS SKILLS

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What is Python?

- Python is Invented during early 90s by Guidovan Rossum
- Python is a general purpose and high level programming language.
- You can use Python for developing desktop, websites and web related applications.
- The simple syntax rules of the programming language further makes it easier for you to keep the code base readable and application maintainable

Difference between a Program and a script

- A **"program"** in general, is a sequence of instructions written so that a computer can perform certain task.
- A **"script"** is code written in a scripting language. A scripting language is nothing but a type of programming language in which we can write code to control another software application
- ex: JavaScript