



A Survey on Importance of Programming Languages

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Abstract

In 21st century of modern age almost everything has become digital i.e. computerized every work is done on a computer actually it is used to store data in various forms. So the related application is developed because of which manual work decreases. To create any application, programmer have the knowledge of languages due to which it is created. There are various languages which has various function each language has its own feature we are studying the language but we actually don't know what is use of language and why we are learning it and when the language is used.

Index Terms: interpreter, assembler, kernel, toggle.

INTRODUCTION

The earliest computers were often programmed without the help of a programming language, by writing programs in absolute machine language. The programs, in decimal or binary form, were read in from punched cards or magnetic tape or toggled in on switches on the front panel of the computer. Absolute machine languages were later termed first-generation programming languages. The next step was development of so-called second-generation programming languages or assembly languages. The first high-level programming languages, or third-generation programming languages, were written in the 1950s. An early high-level programming language to be designed for a computer was Plankalkul 1949, was one of the first high-level languages ever developed for an electronic computer. The first code and compiler was developed in 1952 for the Mark 1 computer at the University of Manchester and is considered to be the first compiled high-level programming language.

In 1954, FORTRAN was invented at IBM by John Backus. It was the first widely used high-level general purpose programming language to have a functional implementation.

TODAY'S DEMANDING LANGUAGES

1. C
2. Python
3. SQL
4. C#
5. Java
6. Javascript
7. PHP

1. C Language:

Learning other languages after that. But is it the only reason being C is the mother language or there are some other reasons as well. Let's find out! I will start with the advantages a person carries if he is known to C language. If you talk to a person who has been a master in C language or he is very sound when it comes to write a code in C, then he is going to be very certain that he knows how a computer works. To be honest, if an individual is very happy with developing some really cool apps and also really satisfied with what he does, there is no need to learn C language but in case you want to excel whether in the field of research or somehow wants to do projects that requires working with the machine as a whole, you got to understand that C is the

primary language one should focus in. If we talk about 21st century itself, majority of software infrastructure is powered by code in C language. From Linux kernel to VMs, servers, Interpreters of most of the language you work on, drivers and a lot more is powered by C.

Now, coming to how can C language help you in your career is an important point to take. So, if you are someone who is intimidated to become a very important person in an industry who has been playing crucial role in some big projects like working on the in-depth code of a web browser or working on improving the working of an interpreter, you need to understand that you always have to start with a very good understanding of C language. Also, if you are willing to become a part of the biggest open source community, yes, C language is important. If we talk about some big developers in the world, where eventually if you want to be as well, you should be known to the fact that it is almost compulsory to know 'how to read an assembler' which is only possible if you know C. Coming to the point which everyone makes, 'why you should always start with C?'. The main reason being, yes it gets much more simpler for any programmer to learn any language after going through C language because the concepts used in C language are being used by every other language out there, this is exactly like you need to understand one level of abstraction below the one you are already known to. Also, according to many studies, it has been found that programmers with a understand in C language tends to take less time in learning any other language then programmers who are not known to C.

So, the bottomline is in case you want to move swiftly to be a position in an organisation where you are somehow the decision maker as well like in case the programming language let's say python or ruby being a very high level language somehow isn't responding quickly enough and the response time is very high, you need to act smartly to get old-school and drop down to C code because when every language fails, C prevails.

- **Operating Systems**
- **Development of New Language**
- **Computation Platforms**
- **Embedded Systems**
- **Graphics and Games**

2. Python Language:

Python is an interpreted language, Python has a design philosophy which emphasizes code readability (notably using whitespace indentation to delimit code blocks rather than curly braces or keywords), and a syntax which allows programmers to express concepts in fewer lines of code than possible in languages such as C++ or Java. Python continued to grow in popularity in 2016 and moved up two places in our rankings to be the third-most-common language by job posting. Python is a general-purpose programming language that emphasizes code readability and increasing developer productivity, used for desktop apps, web apps, and data mining. In October 2016, Microsoft launched the beta version 2.0 of its Cognitive Toolkit open source deep-learning framework, which includes support for Python.

First Appeared: – 20 February 1991

Designed By: – Guido van Rossum

- **Web and internet development**
- **Desktop GUIs**
- **Web programming (django, google app engine and much more)**

3. SQL Language:

SQL (Structured Query Language) is a domain-specific language used in programming and designed for managing data held in a relational database management system (RDBMS), or for stream processing in a relational data stream management system (RDSMS).

The number of Indeed job descriptions including SQL (Structured Query Language) increased by nearly 50,000 this year over last few year, giving SQL a dramatic lead over the other languages. It's unclear if this is entirely due to more SQL jobs in the market or a change in how Indeed works. Either way, SQL is still the clear leader in our analysis. SQL is used to communicate with and manipulate databases. It is extremely common, with many variations like MySQL and Microsoft SQL. Microsoft released SQL Server 2016 in the past year, which proved to be surprisingly popular and introduced several new features to make the language more open-source like integration with R, the popular data analysis programming language, and a Linux version.

First Appeared: – 1974

Designed By: – Donald D. Chamberlin, Raymond F. Boyce

- **Sql is used to communicate with a database.**
- **It is a standard language for relational database nmanagement system.**
- **Sql statements are used to perform tasks such as update data on database.**

4. Java Language :

Java is a popular enterprise-level programming language that was created by James Gosling in 1995. It has since become a popular programming language to create enterprise-level apps and is heavily used on Android platform. It's also used extensively in teaching newbies computing or programming in general, and it's widely used for creating and managing cloud platforms.

- **Desktop GUI Applications**
- **Mobile Applications**
- **Embedded Systems:**
- **Web Applications:**
- **Web Servers and Application Servers:**

5. JavaScript Language:

JavaScript is a programming language that is run by most modern browsers. It supports object-oriented programming

and procedural programming. It can be used to control web pages on the client side of the browser, server-side programs, and even mobile applications.

JavaScript (different from Java) moved 4th place in our ranking, compared to last year there is no change in job number of job postings. It's a mainly client-side, dynamic scripting language used for front-end development. JavaScript is compatible across all browsers, used in over 90 percent of all web pages and is the most popular language on StackOverflow.

First Appeared: – December 4, 1995

Designed By: – Brendan Eich

JavaScript allows you to run different programs on your website, such as polls, quizzes, and much more. Everything from advertisements to simple games can be written in JavaScript. It is often what brings function to a website, so it's similar to the store that may exist on the first floor of a building.

6. C# Language:

C# stands in a similar position to Java programming language, but it's closely associated with Microsoft. The language was developed for Microsoft's .NET software framework and can now be used on non-Windows machines since the release of the .NET Core open-source development platform in June 2016. It's a high-level, object-oriented programming language that offers modern paradigms for rapid development, so if you're serious about developing Microsoft related apps, you need to pick up C#. It can also be used in developing web applications or developing games, and it's crucial for the development of popular game engines, such as Unity.

First Appeared: – 2000

Designed By: – Microsoft

7. PHP Language:

PHP (Personal Home Page) is a general-purpose scripting language that is especially suited to server-side web development, in which case PHP generally runs on a web server. Any PHP code in a requested file is executed by the PHP runtime, usually to create dynamic web page content or dynamic images used on websites or elsewhere.

It's used extensively in web development projects in conjunction with other programming languages, such as HTML, CSS, and JavaScript, and it's easy to learn and has a vibrant ecosystem.

First Appeared: – June 8, 1995

PHP is also considered the language of the web (World number 1 content management platform WordPress is using PHP) and 82 percent of the web is created with PHP, there is no reason not to learn it. But PHP is also the number one language when it comes to criticism.

1. **Web Pages and Web-Based Applications**
2. **Web Content Management Systems**
3. **eCommerce Applications**
4. **GUI-Based Applications**
5. **Create Flash**
6. **Image Processing and Graphic Design**
7. **Data Representation**

CONCLUSION

Now we are known to why we are learning programming languages not just only to write program and create software but for many other things too.

The reason behind this presentation is to express what are the individual feature and function of each language. And why c is must before any other language.

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