#### Historical Perspective On Some Programming Languages

What Are Programming Languages? A programming language is a group of strings which produce different forms of computer codes. A programming language is a form of computer language that is used in implementing algorithms when programming computers.

### Some Common Programming Languages

- Basic
- Fortran
- C++
- HTML
- Java
- JavaScript
- Python
- PHP
- Ruby
- CSS
- Ada
- COBOL etc.

### C++

C++began in the year 1979 by a man whose name was Bjarne Stroustrup when he worked on his Ph.d thesis. Before Stroustrup began to use C++ he worked with a programming language called simula which was a programming language used for simulations. Simula 67 language, which Stroustrup used, is credited with being the first to support the object-oriented programming paradigm. This paradigm was discovered to be quite effective in software development but the Simula language was very slow to be practical. As a result, he began working on "C with classes", a new language that would combine the object-oriented paradigm with the capabilities of the C programming language. Classes, inheritance, inlining, default function arguments, polymorphism, encapsulation, and strong type checking were all incorporated in the new language when it was

released in 1983 and it was named C++. In October 1985, the first commercial edition of the C++ programming language was launched. Similar programminglanguages: Python, Ruby, Java etc.

#### Java

In the early 1990s, Sun Microsystems' James Gosling and colleagues created Java, an object-oriented programming language. In June 1991, James Gosling began working on Java which was then called "Oak." Gosling desired to make a virtual machine and a programming language which looked like C but was more standardised and simpler than C/C++. Java 1.0 was released in 1995 as the first public implementation. It was extremely secure and flexible, with network and file access constrained. The main web browsers integrated fast into their regular settings after establishing a stable 'applet' arrangement. Following the release of Java 2.newerversions for large and small platforms (J2EE and J2ME) quickly developed. Sun attempted to codify Java in 1997 by contacting the ISO/IEC JTC1 and later Ecma International, but they immediately withdrew. The Java Community Process continues to regulate Java as a de facto proprietary standard. Sun made some Java implementations free of charge thanks to cash produced by new visions like the Java Enterprise Framework. The main distinction was that the compiler was not included in the JRE, which distinguished it from its Software Development Kit (SDK). Similar Programming languages: C, JavaScript, Python, Scala etc.

#### CSS

Hakon Wium Lie suggested CSS for the first time on the 10th of October, 1994. During that period, he was working at CERN with Tim Berners-Lee, who is the father of HTML. CERN stands for the European Organization for Nuclear Research. Hakon Wium lie is regarded as the creator of CSS. CSS stands for Cascading Style Sheet. CSS was introduced as a web style language in 1994 to address some of the issues with HTML 4. Other styling languages, such as Style Sheets for HTML and JSSS, were proposed at the time, but CSS won out. The 'cascading' method in CSS, which was discussed extensively in relation to distinct stylesallowed page managers to alter numerous sheets or pages at the same time. Different people were attempting to design other models at the time as well. The beauty of CSS, on the other hand, was that it was a relationship between the reader and the web author. To put it another way, it was the belief that the document's style could not be established just by the writer or the reader; both parties' wants and desires had to be considered. The design had to take into account the capabilities of the gadget that would be presenting the content. Similar Programming Languages: Java, Python, PHP, Ruby etc.

### Ruby

Yukihiro Matsumoto, also known as "Matz," invented Ruby in Japan in the mid-1990s. It was created with the thought that programming should be enjoyable for programmers in mind. It underlined the importance of software being understood first by humans and then by computers. Ruby's popularity in web application development continued to grow. David Heinemeier Hansson created the Ruby on Rails framework, which exposed many people to the joys of programming in Ruby. Ruby was first created in the year 1995, and ruby.95 was the first version of the language to be released. Yukihiro Matsumoto fully object-oriented programming language which could as well be used to write scripts. Due to that, he formed the Ruby programming language. Similar Programming: Python, JavaScript, PHP, C++ etc.

#### $\mathbf{C}$

Dennis Ritchie, a brilliant computer scientist, invented the C programming language in 1972. It was created by Bell Laboratories and AT and T, both of which are based in the United States. Dennis Ritchie is widely regarded as the creator of the C programming language. The B programming language predates the C programming language, and combines the features of ALGOL, BCPL, and B programming languages. To address the shortcomings of B programming language ,ALGOL and BCPL languages the C language was launched with a number of new capabilities. The C programming language was created primarily for the development of Unix operating systems. However, it is being used to create a variety of additional programmes and applications. It's also called "ANSI C" since the American National Standards Institute (ANSI) established a commercial standard for the C language in 1989 in order to maintain it as a standard. Similar Programming languages: Go, Lua, Perl etc. Available IDEs For C++ Programming Language.

- Visual studio code
- Code:: Blocks
- CLion
- Eclipse
- CodeLite
- Apache NetBeans
- QT creator
- Dev C++
- C++ builder

- Xcode
- GNAT Programmers studio
- Kite
- Sublime Text
- Brackets
- Atom etc.

Available IDEs For Java Programming Language.

- jEdit
- NetBeans
- jGRASP
- Eclipse
- DrJava
- JDeveloperAndroid Studio
- Enide studio 2014
- BlueJ
- JSource
- IntelliJ IDEA Community Edition
- Kite etc.

## Available IDEs For CSS Programming Language.

- Light Table
- PHPStorm
- Komodo Edit
- Atom by Github
- RJ TextEd
- Visual Studio Code
- Notepad++
- PyCharm

- IntelliJ IDEA
- RubyMine
- $\bullet$  NetBeans
- Sublime Text 3
- Brackets
- Webstorm

## Available IDEs For Ruby Programming Language.

- RubyMine
- Visual Studio Code
- Atom
- Aptana Studio
- $\bullet$  Eclipse
- Komodo IDE
- NetBeans
- Selenium etc.

## Available IDEs For C Programming Language.

- $\bullet$  Eclipse
- Dev-C++
- NetBeans
- Visual Studio Code
- CodeLite
- GNAT Programming Studio
- Code::Blocks
- QT Creator
- $\bullet$  CodeWarrior
- K Develop
- SlickEdit
- $\bullet$  MinGWetc.

## Application examples that exist or that can be developed using C++:

- GUI based applications like Win Amp Media Player, Adobe Systems etc.GUI based applications like Win Amp Media Player, Adobe Systems etc.
- Operating Systems like Apple OS and Ipod have part of it written in C++. The majority of Microsoft also has its software which is written C++.
- Browsers like Mozilla Firefox and Thunderbird are completely developed in C++.
- Games
- Google applications are also written in C++.
- Database Softwares like MySQL an Postgres are written using C++.
- Applications that need advanced computation and graphics etc.

## Application examples that exist or that can be developed using Java:

- Java can be used to create web-based applications like Broadleaf use java In E-Commerce web applications..
- It can also be used to create mobile applications like for example majority of ohones which have android OS is devveloped by java. And mobile apps like Netflix, Google Calendar, Uber etc. uses java.
- Enterprise Applications: companies like trivago, Spotify,google etc. Use java.
- Cloud-based Applications.
- Embedded Systems
- Distributed Applications
- Desktop GUI Applications
- Web servers and Application servers
- Software Tools
- Scientific Applications
- Gaming Applications: Because java supports Dalvik Virtual Machine (DVM) which is specifically built to perform on the android platform, android games use it as tgeir primary language.
- Big Data Technologies etc.

## Application examples that exist or that can be developed using CSS:

- Animation and effects
- Web-based Applications like Keyframes.app
- Website design
- Social media
- CSSynth app which is a small app used to run animations.etc

# Application examples that exist or that can be developed using Ruby:

- Hospitality services like AirBnB
- Online music distribution like SoundCloud
- Version control repositorylike GitHub
- Project management systems like Basecamp
- Online stores like Shopify
- Live Video streaming like Hulu
- $\bullet$  Social Cataloging like GoodReads
- Freelance marketplace like Fiverr etc.

# Application examples that exist or that can be developed using C:

- Systems like Microsoft Windows is powered by C.
- Linux: is majorly Written in C.
- Mac is powered in C.
- Mobile phones IOS, Androids and windows are written in C.
- $\bullet\,$  Databases like MySQL, Oracle Database, PostgreSQL are coded in C.
- 3D movies are made in applications that are written in C.
- Embedded Systems like alarm clock, Air bag control, child-proof locks etc. are programed in C.