

32 Best Programming Languages With its Programs

ALGOL

A contemporary of the other early 1950's programming languages FORTRAN, Lisp, and COBOL.

It became the standard way of describing algorithms in academia for 30 years, meaning it influenced many other languages' syntaxes, including C.

Paradigm	Procedural, imperative, structured
Family	ALGOL
Designed by	Bauer, Bottenbruch, Rutishauser, Samelson, Backus
First appeared	1958

Program:

```
BEGIN DISPLAY("Marvellous Infosystems by Piyush Khairnar") END.
```

APPLESCRIPT

AppleScript is a scripting language created by Apple Inc. that facilitates automated control over scriptable Mac applications.

First introduced in System 7, it is currently included in all versions of macOS as part of a package of system automation tools.

The term "AppleScript" may refer to the language itself, to an individual script written in the language, or, informally, to the macOS Open Scripting Architecture that underlies the language.

Paradigm	Natural language programming, Scripting
Developer	Apple Inc.
First appeared	1993; 27 years ago
Stable release	2.5 / October 16, 2014; 5 years ago

Program :

```
say "Marvellous Infosystems by Piyush Khairnar"
```

ASSEMBLY LANGUAGE

This is the language that will get you the highest performing and most efficient software that is still human-readable. It's so hard to write in that it only makes sense to use it for small parts of a programme that are performance-sensitive. You will find it in operating systems and 3D game engines.

Program:

```
global _main
extern _printf

section .text
_main:
    push    message
    call    _printf
    add     esp, 4
    ret
message:
    db 'Marvellous Infosystems by Piyush Khairnar', 10, 0
```

BASH (UNIX SHELL)

Used to interact with and manage Linux and Unix system at the command line. GNU Bash or simply Bash is a Unix shell and command language written by Brian Fox for the GNU Project as a free software replacement for the Bourne shell. First released in 1989, it has been used widely as the default login shell for most Linux distributions and Apple's macOS Mojave and earlier versions. A version is also available for Windows 10. It is also the default user shell in Solaris 11.

Original author	Brian Fox
Initial release	June 8, 1989
Stable release	5.0 January 7, 2019
Written in	C
Operating system	Unix-like, macOS ,Windows

Program:

```
#!/bin/bash
STR="Marvellous Infosystems by Piyush Khairnar"
echo $STR
```

C

The most important language in the world. It's what operating systems like Windows, MacOS, iOS, and Android are written in, as well as browsers and 3D games engines. Its syntax has influenced countless other programming languages.

C maps closely to Assembly Language but you can write more complex programmes with it.

C was originally developed at Bell Labs by Dennis Ritchie between 1972 and 1973 to make utilities running on Unix. Later, it was applied to re-implementing the kernel of the Unix operating system. During the 1980s, C gradually gained popularity. It has

become one of the most widely used programming languages, with C compilers from various vendors available for the majority of existing computer architectures and operating systems.

Program:

```
#include <stdio.h>
```

```
int main(void)
```

```
{  
    printf("Marvellous Infosystems by Piyush Khairnar\n");  
}
```

Paradigm	procedural, structured
Designed by	Dennis Ritchie
First appeared	1972
Stable release	C18 / June 2018
OS	Cross-platform
Filename extensions	.c, .h

C++

C++ was an effort to make a language that was easier to build large projects with while still being fast and efficient.

C++ is a high-level, general-purpose programming language created by Bjarne Stroustrup as an extension of the C programming language, or "C with Classes".

The language has expanded significantly over time, and modern C++ has object-oriented, generic, and functional features in addition to facilities for low-level memory manipulation.

Program:

```
#include <iostream>  
using namespace std;
```

```
int main()
```

```
{  
    cout << "Marvellous Infosystems by Piyush Khairnar\n";  
    return 0;  
}
```

Designed by	Bjarne Stroustrup
First appeared	1985
Stable release	C++17

C#

Created when Microsoft built their .Net virtual machine. C# has become Microsoft premier programming language.

C# is a general-purpose, multi-paradigm programming language encompassing strong typing, lexically scoped, imperative, declarative, functional, generic, object-oriented (class-based), and component-oriented programming disciplines.

It was developed around 2000 by Microsoft as part of its .NET initiative.

C# is one of the programming languages designed for the Common Language Infrastructure (CLI).

Program:

```
using System;
```

```
class Program
```

```
{  
    static void Main(string[] args)  
    {  
        Console.WriteLine("Marvellous Infosystems by Piyush Khairnar");  
    }  
}
```

DART

A language for building client-side software that can run on phones and browsers. Google is using Dart in some of its most important projects.

Program:

```
main()
```

```
{  
    print('Marvellous Infosystems by Piyush Khairnar');  
}
```

DELPHI (OBJECT PASCAL)

Delphi was really a rapid application development (RAD) tool that used the Object Pascal language. In the mid- to late 90s, it was beloved by many programmers for writing Windows programmes. It's no longer used, but still loved.

Program:

```
procedure TForm1.ShowAMessage;  
begin
```

```
ShowMessage('Marvellous Infosystems by Piyush Khairnar');  
end;
```

F#

A functional focused programming language that runs on the .NET framework.
open System

Program:

```
Console.WriteLine("Marvellous Infosystems by Piyush Khairnar")
```

FORTRAN

Created in the 1950s to run on mainframe computers, it's well suited for numerical and scientific work. It became standard in the scientific world where it's still used today.

Program:

```
program helloworld  
  print *, "Marvellous Infosystems by Piyush Khairnar"  
end program helloworld
```

GO

Go was created and used at Google. It's a practical language that focuses on programmer productivity with a community focused on performance and low latency. Go is a statically typed, compiled programming language designed at Google by Robert Griesemer, Rob Pike, and Ken Thompson.

Go is syntactically similar to C, but with memory safety, garbage collection, structural typing, and CSP-style concurrency.

The language is often referred to as "Golang" because of its domain name, golang.org, but the proper name is Go.

Program:

```
package main  
import "fmt"  
  
func main()  
{  
  fmt.Println("Marvellous Infosystems by Piyush Khairnar")  
}
```

GROOVY (RUBY)

A dynamically typed scripting language that runs in the Java runtime. Most Java code would also run as Groovy code but Groovy code can be more compact as it doesn't require everything that Java does.

Program:

```
println "Marvellous Infosystems by Piyush Khairnar"
```

HASKELL

A strongly-typed, purely functional programming language.
module Main where

Program:

```
main :: IO ()  
main = putStrLn "Marvellous Infosystems by Piyush Khairnar"
```

JAVA

Something that made Java special is that it was designed so you could write code once and then allow it to run on any operation system. Java is the most popular programming language in the world.

Java is a general-purpose programming language that is class-based, object-oriented, and designed to have as few implementation dependencies as possible.

It is intended to let application developers write once, run anywhere (WORA), meaning that compiled Java code can run on all platforms that support Java without the need for recompilation.

Paradigm	Multi-paradigm, generic, object-oriented (class-based)
Designed by	James Gosling
Developer	Sun Microsystems
First appeared	May 23, 1995
Stable release	Java SE 14 March 17, 2020

Program:

```
class Marvellous  
{  
    public static void main(String[] args)  
    {  
        System.out.println("Marvellous Infosystems by Piyush Khairnar");  
    }  
}
```


JAVASCRIPT (ECMASCRIPT)

JavaScript is the most commonly found programming language in the world. Mainly because it is required to be in every web browser. JavaScript is what makes the web dynamic and interactive. It was standardised under the name ECMAScript.

Program:

```
console.log("Marvellous Infosystems by Piyush Khairnar");
```

LISP

Designed a year after Fortran, Lisp is the second-oldest high-level programming language that's still in common use. Lisp can lay claim to many programming language firsts, and can now be considered a family of languages as well as a language itself. It was popular in the 70s era of AI research. It seemed to be fading in popularity in the 90s but is now gaining popularity through several new dialects.

Program:

```
(print "Marvellous Infosystems by Piyush Khairnar")
```

MATLAB

A combination of a programme and a language. Used to analyse data and develop algorithms. It's used in education to teach linear algebra and numerical analysis. It's also popular with scientists doing work with image manipulation.

Program:

```
classdef Marvellous
    methods
        function greet(this)
            disp('Marvellous Infosystems by Piyush Khairnar')
        end
    end
end
```

OBJECTIVE-C

An extension of C that adds Smalltalk like messaging. Used by Apple in writing macOS and iOS.

Objective-C is a general-purpose, object-oriented programming language that adds Smalltalk-style messaging to the C programming language. It was the main programming language supported by Apple for macOS, iOS, and their respective application programming interfaces (APIs), Cocoa and Cocoa Touch, until the introduction of Swift in 2014.

Program:

```
main()
{
    puts("Marvellous Infosystems by Piyush Khairnar");
    return 0;
}
```

PASCAL

A popular language in the 80s and 90s especially for teaching programming. It evolved a great deal and was also the language used in the Delphi RAD toolset.

Program:

```
program HelloWorld(output);
begin
    Write('Marvellous Infosystems by Piyush Khairnar')
end.
```

PERL

Perl is very powerful for text processing. A popular option for creating websites in the early days of dynamic websites.

Program:

```
print "Marvellous Infosystems by Piyush Khairnar\n";
```

PHP

PHP is the most popular language for building the backend of websites. It's what Facebook and WordPress are written in.

PHP is a popular general-purpose scripting language that is especially suited to web development.

It was originally created by Rasmus Lerdorf in 1994; the PHP reference implementation is now produced by The PHP Group. PHP originally stood for Personal Home Page, but it now stands for the recursive initialism PHP: Hypertext Preprocessor.

Paradigm	Imperative, functional, object-oriented, procedural, reflective
Designed by	Rasmus Lerdorf
First appeared	1995
Stable release	7.4.4 / March 19, 2020

Program:


```
<?php  
echo "Marvellous Infosystems by Piyush Khairnar";  
?>
```

POWERSHELL

Used to interact with and manage Windows systems at the command line level.

Program:

```
Write-Host "Marvellous Infosystems by Piyush Khairnar"
```

PYTHON

Python is an interpreted, high-level, general-purpose programming language. Created by Guido van Rossum and first released in 1991, Python's design philosophy emphasizes code readability with its notable use of significant whitespace. Its language constructs and object-oriented approach aim to help programmers write clear, logical code for small and large-scale projects.

Program:

```
print("Marvellous Infosystems by Piyush Khairnar")
```

R

A great language for doing statistics, and a popular choice in the scientific world. R is a programming language and free software environment for statistical computing and graphics supported by the R Foundation for Statistical Computing. The R language is widely used among statisticians and data miners for developing statistical software and data analysis.

Paradigms	Multi-paradigm, object-oriented, imperative
Designed by	Ross Ihaka and Robert Gentleman
First appeared	August 1993
Stable release	3.6.3 February 29, 2020

Program:

```
cat("Marvellous Infosystems by Piyush Khairnar")
```

RUBY

Designed to be a productive and fun language to use, stressing human needs over computer needs. The Rails web framework was written for Ruby, and had a huge

impact on web framework design. Ruby is still a popular language for creating websites.

Ruby is an interpreted, high-level, general-purpose programming language.

It was designed and developed in the mid-1990s by Yukihiro "Matz" Matsumoto in Japan.

Ruby is dynamically typed and uses garbage collection. It supports multiple programming paradigms, including procedural, object-oriented, and functional programming.

Paradigm	Multi-paradigm: functional, imperative
Designed by	Yukihiro Matsumoto
First appeared	1995
Stable release	2.7.1

Program:

```
puts 'Marvellous Infosystems by Piyush Khairnar'
```

RUST

A new language that is intended to replace languages like C for doing systems-level work. Parts of Firefox are being replaced with Rust.

Program:

```
fn main()
{
    println!("Marvellous Infosystems by Piyush Khairnar");
}
```

SCALA

Designed to address some of the criticisms of Java. A function-focused language that runs on the Java virtual machine.

Program:

```
object Marvellous extends App
{
    println("Marvellous Infosystems by Piyush Khairnar")
}
```

SCRATCH

A visual programming language designed to let kids learn skills by programming. There is also Scratch Jr. which is intended for use by 5-7 year olds.

Both languages are used by millions in and out of schools all over the world. Scratch is a block-based visual programming language and website targeted primarily at children.

Users of the site can create online projects using a block-like interface.

Program:

say Marvellous Infosystems by Piyush Khairnar

SMALLTALK

A very important language that has had a massive influence on many programming languages. It was also popular with people who would popularise programming best practices. Many things that are now common in programming were first done in Smalltalk.

Program:

Transcript show: 'Marvellous Infosystems by Piyush Khairnar'.

SWIFT

A newer language created at Apple that is being promoted to replace Objective-C for use on its platforms.

It's designed to be an easier language to learn and use without losing the performance of Objective-C.

Swift is a general-purpose, multi-paradigm, compiled programming language developed by Apple Inc. for iOS, iPadOS, macOS, watchOS, tvOS, Linux, and z/OS.

Swift is designed to work with Apple's Cocoa and Cocoa Touch frameworks and the large body of existing Objective-C code written for Apple products.

Program:

```
println("Marvellous Infosystems by Piyush Khairnar")
```

TYPESCRIPT

Designed in Microsoft, it's a dialect of JavaScript that adds strict rules to help with large projects while remaining compatible with JavaScript.

TypeScript is an open-source programming language developed and maintained by Microsoft. It is a strict syntactical superset of JavaScript, and adds optional static typing to the language.

TypeScript is designed for development of large applications and transcompiles to JavaScript.

As TypeScript is a superset of JavaScript, existing JavaScript programs are also valid TypeScript programs.

TypeScript may be used to develop JavaScript applications for both client-side and server-side execution (as with Node.js or Deno).

Paradigm	Multi-paradigm: functional, generic, imperative, object-oriented
Designed by	Microsoft
First appeared	1 October 2012
Stable release	3.8.3 / 20 February 2020

Program:

```
console.log("Marvellous Infosystems by Piyush Khairnar");
```

आयुष्य खूप सुंदर आहे फक्त **Programming** जमलं पाहिजे..

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