

# PROGRAMMING FOR PROFITS

Seriously Increase Your Income



# INTRODUCTION

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Computer programming and development is one of the fastest growing industries in the modern world. It is an important part of almost every single other industry, as anything with a computer system of any sort will need programming. And that leads to having most in demand programming languages.

For example, modern farm machinery has self-driving systems. These need programming. Likewise, any sort of modern device – think smart phones, computers, gaming consoles, and more – all need programming by an experienced developer.

As you can probably guess, there is a lot of work for programmers throughout the world. This has led to something of a shortage of programmers in recent times, especially for the most used programming languages.

For the purpose of this ebook, we have identified some of the most in demand programming languages. We believe that you should be able to find the most useful programming language for you to learn within this list, especially if you are thinking about learning your first language and trying to get a job as a developer.



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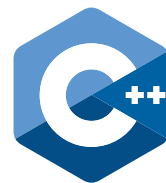
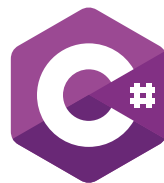
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# 1 What Are the Top Programming Languages of 2018?

For the purpose of this ebook, we have defined the 'top programming languages of 2018' to mean the most in demand programming languages. We have drawn on a range of sources when deciding which languages should make this list, and which ones simply don't make the cut, including Google trends and Indeed.com job postings.

We considered how popular a language is among people learning new programming skills. The demand for experienced developers was taken into account, as was the future prospects for each language. Once we finished crunching the numbers, the following languages were identified as the most in demand in 2018.

(Languages are in no particular order)





# PHP

PHP is known as the language of the internet, and for very good reason. Designed for website development, it is arguably the most used programming language in the world right now. Although it is slowly falling in popularity, PHP is still used on over 80% of the websites on the internet, meaning that there is going to be a strong demand for developers for years to come.

One of the most unique features of PHP is that it can be embedded directly in HTML. Instead of having to use complicated syntax to jump back and forwards from HTML code like you would if you used a language like Java or Perl, PHP code can be written directly into the HTML. This means that you can jump in and out of 'PHP mode' quickly and easily.

```
<?php
$str_isset = "";
$bol_isset = isset($str_isset);

If ($bol_isset) {
    echo "The variable is set";
}
else {
    echo "The variable is not set";
}
?>
```



# JAVASCRIPT

The next language on our list, JavaScript, threatens to become the most useful programming language in the world during the next few years. Traditionally used for interactive front-end website development, JavaScript is becoming increasingly popular for back-end development as well.

According to recent statistics, over 80% of developers and 95% of websites use JavaScript to create dynamic logos. With numbers like this, it is obvious that there will be plenty of demand for experienced programmers in the future, making it a very good language to learn.

Also, the fact that JavaScript has jumped in popularity recently makes it a great language for beginners. It is undoubtedly one of the most in demand programming languages as far as jobs for developers go, meaning you will have great job security if you can learn it.

If you would like to learn a versatile language which will give you the chance to work with websites, apps, and a range of other things, then learn JavaScript.

```
function retrieveWebSite(siteurl) {
    var clientContext = new SP.ClientContext(siteUrl);
    this.oWebsite = clientContext.get_web();

    clientContext.load(this.oWebsite);

    clientContext.executeQueryAsync(
        Function.createDelegate(this, this.
onQuerySucceeded),
        Function.createDelegate(this, this.
onQueryFailed)
    );
}
function onQuerySucceeded(sender, args) {
    alert('Title: ' + this.oWebsite.get_title() +
'Description: ' + .oWebsite.get_description());
}
function onQueryFailed(sender, args) {
    alert('Request failed. ' + args.get_message() +
'\n' + args.get_stackTrace());
}
```



## C#

C#, or C Sharp, is a programming language that is derived from C. Designed by Microsoft to run on the .NET platform, C# has long been one of the most in demand programming languages. Although it has been slowly declining in popularity over the past few years, it is still definitely worth learning.

As an object-oriented programming language, C# is widespread in video game development and programming. If you would like to get into this sort of field, then you will need to learn C#, and probably a number of other languages.

In general, C# isn't a good first language to learn. It is difficult, hard to follow, and it has a limited amount of uses. However, if you have a programming background and are looking for something to add to your resume, then C# is definitely a good choice. The fact that it has made our list of the most in demand programming languages of 2018 means that there is plenty of work out there for C# developers, offering increased job security into the future. If you do decide to learn C#, make sure that you do your research and choose a decent course. As noted above, it is quite a difficult language to learn, so making sure that you are taking a high-quality, reputable course will help increase your chance of success.

```
namespace ConsoleApplication8
{
    class Program
    {
        static void Main(string[] args)
        {
            System.String name = "John";
            System.String age = "20";
            System.String grade = "A";
            System.String average = "15.56";

            Console.WriteLine("Name is:{0}", name);
            Console.WriteLine("Age is:{0}", age);
            Console.WriteLine("Grade is:{0}", grade);
            Console.WriteLine("Average is:{0}", average);
            Console.ReadLine();
        }
    }
}
```



# JAVA

Good old Java, one of the strongest programming languages for the last few decades. Java is a very versatile language which can be used for a whole lot of different things – including Android app development and back-end website development. The vast majority of Android apps are based on Java, while a huge percentage of the world's biggest websites use it to build their website back-ends.

One of the best features of Java is that it is completely compatible with any hardware or operating system due to the Java Virtual Machine (JVM). Its syntax reads very similar to English, which makes it quite an easy language for beginners to learn.

If you want to learn a programming language which is not only among the most widespread in the world, but which is quite easy and which there are a lot of jobs for, then learn Java!

```
public class Prime {  
  
    public static void main(String[] args) {  
  
        int num = 29;  
        boolean flag = false;  
        for(int i = 2; i <= num/2; ++i)  
        {  
            // condition for nonprime number  
            if(num % i == 0)  
            {  
                flag = true;  
                break;  
            }  
        }  
  
        if (!flag)  
            System.out.println(num + " is a prime member.");  
        else  
            System.out.println(num + " is not a prime member.");  
    }  
}
```





# PERL

Although a lot of people believe that Perl is useless in the modern world of programming, they couldn't be further from the truth. Luckily for you, this mindset has caused a distinct reduction in the number of people learning Perl over the past few years, resulting in a large demand for developers.

Perl is a very flexible language which is not dissimilar to the more widely used Python. Its versatility is one of its main positive aspects, as it allows programmers to develop a program the way they want to, rather than the way the language wants them to.

While it may not be the most popular, Perl is definitely one of the most in demand programming languages in the world. The lack of people learning it has resulted in a shortage of developers, which makes it a great language for you to learn.

Note that its flexibility means that you need to have a very strong understanding of it before you will be able to use it successfully, but don't let this scare you away. After all, some of the largest companies in the world use Perl as part of their programming toolkit.

```
#!/usr/bin/perl

use Socket;
my $ADDR_PAT = /^d+\.\d+\.\d+\.\d+$/;

while (<>) {
    chomp;
    die "$_: Not a valid address" unless /$ADDR_PAT/o;
    my $name = gethostbyaddr(inet_aton($_),AF_INET);
    $name ||= '?';
    print "$_ => $name\n";
}
```



# PYTHON

Along with Java, Python is probably the most used programming language for general purpose coding. It is extremely versatile, easy to use, and even easier to learn. Some of the main benefits of Python include:

- It reads similarly to English, which means that it is quite easy to follow the code and to debug mistakes.
- It is super versatile, which means that it can be used for a wide range of things.
- It is in demand, which means that you won't have any trouble finding work at the end of your course.

As you can see, there are plenty of reasons why you should learn Python. In fact, it is the most popular programming language taught in schools. Add to this the fact that it is at the forefront of developing technologies like artificial intelligence and machine learning, and you definitely have one of the most in demand programming languages of 2018.

```
# This program adds two numbers

num1 = 1.5
num2 = 6.3

# Add two numbers
sum = float(num1) + float(num2)

# Display the sum
print('The sum of {0} and {1} is {2}'.format(num1, num2, sum))
```



# C++

Although C++ probably isn't a language which most people would expect to see on a list of the top programming languages 2018, the fact is that there are a lot of jobs out there for C++ developers. This certainly puts it into the category of the most in demand programming languages.

The main reason why C++ developers are in such high demand is probably because it is so difficult to learn. In fact, it makes other 'difficult' languages like C# look easy. Like C#, C++ was developed from the old C language, and it has grown in popularity since its release.

C++ has a wide range of uses, including in game development, client-server app development, software driver development, and system software development. It is an extremely precise language which takes a lot of time and commitment to master, which means that it probably isn't the best choice for a beginner who has little programming experience. If you do decide to learn it, make sure that you choose a decent course by a reputable learning institution.

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

int main()
{
    int i, n, factorial = 1;

    cout << "Enter a positive integer: ";
    cin >> n;

    for (i = 1; i <= n; ++i) {
        factorial *= i;    // factorial = factorial
    }

    cout << "Factorial of " << n << " = " << factorial;
    return 0;
}
```



# SQL

SQL, short for Structured Query Language, is the most common and best programming language to learn for manipulating and querying data within relational databases. SQL first appeared in 1974, making it one of the oldest languages still in use. It contains a number of informal sub-languages, each of which is used to perform certain actions.

SQL is quite a difficult language to use, and it has very specific use cases. However, the increasing demand for data analysis and manipulation by companies has resulted in a spike in the need for SQL developers in recent years. A thorough understanding of SQL will make you invaluable to any company with large databases of consumer information, which – when used properly – can inform marketing and strategy decisions.

Although SQL is the best coding language to learn when it comes to data management, the average SQL developer is looking at a salary of around \$70,000 to \$80,000 per year. While good, this is lower than would be expected if you were to master almost any other language. However, SQL is a very good language to add to your skill set if you already know at least one other language.

```
USE AdventureWorks2012;
GO
SELECT *
FROM Production.Product
ORDER BY Name ASC;
-- Alternate way.
USE AdventureWorks2012;
GO
SELECT p.*
FROM Production.Product AS p
ORDER BY Name ASC;
GO
```

## 2 Languages to Keep an Eye On

These are some of the less known programming languages, but they are constantly growing in popularity. This reason alone makes them a valuable asset to have in your programming language disposal.

### GO

Go, or Golang, is a relatively new language which was developed by Google. Go is a modern language which is designed to help programmers overcome hardware limitations which are undoubtedly going to become more widespread in the near future. Go is gathering momentum, and is poised to slingshot itself into the top few programming languages in the world in the next couple of years.

### SWIFT

Swift was developed by Apple to facilitate easier iOS app design. It allows programmers who want to develop iOS apps to do so without having to learn the difficult C languages. It is quite simple to learn, super easy to use, and is a very good choice for beginners who want to get into iOS app development in the future.

### SOLIDITY

Solidity is a language which most people wouldn't have heard of – even in the programming world. It is currently the most used programming language when it comes to blockchain development. Specifically, it is used to create smart contracts which are executed on the Ethereum blockchain.



# FINAL WORD

It is obvious that there is a lot of work out there for experienced programmers and developers. They are in demand for almost every programming language with widespread use cases, which makes programming one of the most exciting industries to get into.

We have explored some of the most in demand programming languages in this ebook. Learning any one of those, or of the three 'up and coming' languages that we identified, should set you up for future programming success. They will make you more employable, will help you advance your career, and they may even allow you to build the next viral app or website!