

# 10 Best Back-End Programming Languages in 2024

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If you are planning to get started with **web development**, then you must be aware that web development is broadly classified into two parts i.e. **frontend development** and **backend development**. The primary difference between these two is that frontend development serves the **client side** in which the focus is what users see visually on their screen or a web browser, whereas backend development supports the **server side** or what is under the hood of a website.



While these two types of development are certainly distinct from one another, they both have their respective set of tools and technologies. For instance, the tools that come to our minds first when we talk about frontend development are [HTML](#), [CSS](#), and [JavaScript](#), but there are hundreds of languages to choose from when it comes to backend development. In this article we have selected the **10 best backend programming languages** from which you can choose and learn for your career as a backend developer or full-stack developer. Now let's understand what is **back-end development with a**

real-life example

## What is Back-End Development?

[Backend development](#) is like the backstage crew at a concert. While the audience enjoys the show on stage (**the frontend**), the backstage crew (**the backend**) works hard to make sure everything runs smoothly. In web development, the backend is where the magic happens behind

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the website or app work, like handling user logins, storing data, and making sure everything runs securely and efficiently. Just like a concert needs a skilled crew to run smoothly, a web application needs a strong backend to function properly.

## 10 Best Back-End Programming Languages in 2024

Here's a list of the 10 best **backend programming languages** that help you to pick the best one for learning web development.

### 1. JavaScript

One of the very first names that come to our minds while talking about web development is [JavaScript](#). In terms of popularity, JavaScript beats many programming languages in [Web Development](#). JavaScript was originally used only to develop web browsers, but now it is used for server-side website deployments and non-web browser applications as well. For its rich interfaces, **light-weight scripting**, dynamic typing, virtual availability of enormous resources, and interoperability, JavaScript is preferred for both i.e., frontend as well as **backend**

**development.** It also provides huge community support and hence is considered one of the top programming languages in the industry.

## 2. Python

[Python](#) is one of the most famous languages among developers for its compatibility with advanced technologies like [Machine Learning](#), [Deep Learning](#), [IoT](#), [data science](#), etc, and meanwhile, it is widely used for web development too. Because of its readability, versatility, functionality, and compatibility, leading tech giants like Google, etc. rely on Python. Due to its **huge collection of standard libraries** and intuitive syntax, it helps in making the overall coding process simple, thereby, making the developers' work more efficient and easier.

## 3. PHP

[PHP](#) or **PHP Hypertext Preprocessor** is one of the **best languages for web development**. PHP is a dynamic and general-purpose open-source scripting language that was created in 1994. It is used in the development of server-side applications and can be embedded within HTML. PHP doesn't require a compiler and can run on almost every major operating system like Windows, Linux, macOS, etc. It is very popular among web developers because of its easy-to-learn nature, cross-platform compatibility, [OOps](#) features, and its ability to interact with database systems including Oracle and [MySQL](#).

It is a go-to language for web developers as this language is used to build more than 80% of websites on the Internet. Social media applications Facebook and

Yahoo are developed using PHP.

#### 4. Java

[Java](#) is a versatile **object-oriented programming language**, which is widely used for developing enterprise-scale web applications, desktop applications, scientific applications, [big data](#), and much more. It is a platform-independent multi-purpose programming language and has been popular over decades. Unlike other programming languages such as Scala or Python, Java has never introduced any major updates and changes, which is why it is stable and still remains the first choice for most companies. Java is also used on the **backend of several popular websites**, including Google, Amazon, Twitter, YouTube, etc.

#### 5. Ruby

[Ruby](#) is another **popular backend web development language** that is recommended for beginners to learn. Combined with the [Ruby on Rails](#) framework, the language is very flexible and is extensively used for backend web development processes. It supports procedural, functional, and object-oriented programming and also facilitates a variety of coding tools to accelerate the web development process. One of the main **advantages of using Ruby** is its time efficiency and human-friendly syntax. Ruby also favors all major platforms like Windows, Mac, and Linux.

#### 6. C#

**C#** or also pronounced [C-Sharp](#) is a Microsoft-developed OOP language

created on the foundations of a **widely-used programming language**, C. It is one of the most widely used languages and is also very similar to Java. It was originally designed as a part of the .NET framework to develop Windows applications but now it is used for **backend Web Development**, creating games via Unity, developing mobile applications, and much more. It is quite efficient to use since it can run codes faster and can be used across Android, iOS, and Linux platforms. It is considered one of the best programming languages for Web Development.

## 7. Kotlin

[Kotlin](#) is a well-known programming language that was initially used for android development. But, since it is a full-stack solution, it is used for web development, desktop application, and server-side application development as well. Kotlin was initially built to be better than Java. It runs on [JVM](#) and therefore, it helps you **build web applications** using Java frameworks such as Spring, [Hadoop](#), etc. It is quite efficient for writing complex programs and hence, many google applications are based on Kotlin as well.

## 8. Go

[Go](#), also known as **Golang**, was created by Google in 2007 based on the syntax of the [C language](#). Go being a highly specialized language can be intimidating for new programmers but is fairly simple. It has a powerful standard library, offers a high performance, supports multithreading, and also has excellent memory safety features like garbage collection. For all these reasons Go makes an ideal choice for

backend web development.

## 9. Perl

Perl, an acronym for **Practical Extraction and Reporting Language**, is a multipurpose programming language originally designed for text manipulation but now is widely used for system administration, network programming, web development, GUI construction, and many more. Perl is syntactically similar to C and is easy for users who know C and C++. Perl can handle encrypted web data and has good text handling features, which makes it a great **programming language for web development**.


## 10. Scala


Scala stands for Scalable Language and is grouped in the Java family. It combines the features of Java with some new additions which help to overcome some of the cons of Java. It is easy to learn and due to its great scalability, it is considered one of the best web application languages. Scala is particularly well-suited for handling complex data processing tasks and is favored by companies looking to leverage the benefits of both functional and object-oriented programming paradigms in their backend systems.

## Conclusion

Backend development is basically an essential part of web development which focuses on the server-side logic of websites and applications. When choosing a backend programming language for web development, developers generally have several options in which JavaScript is versatile and used for both frontend and

backend. Python is very popular for its readability and extensive libraries. PHP is known for its ease of use and cross-platform compatibility. Java is widely used for enterprise-scale applications. Ruby, C#, Kotlin, Go, Perl, and Scala also offer unique features for backend development. The choice totally depends on project requirements and developer preferences, with each language bringing its own strengths to the table.

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