## What is a Back-End Developer?

The back end of a website is a combination of technology and programming that powers a website, the behind-the-scenes functionality or brain of a site. This back end of a website consists of three parts that a user never sees: a server, an application, and a database.

A back-end developer is someone who builds and maintains the technology needed to power the components which enable the user-facing side of the website to exist. Their back end code adds utility to everything the [front-end developer](https://www.careerexplorer.com/careers/front-end-developer/) creates. These developers are responsible for creating, maintaining, testing, and debugging the entire back end. This includes the core application logic, databases, data and application integration, API and other back end processes.

## What does a Back-End Developer do?

The back end runs a website—the user doesn’t see it or interact with it, but it is always running in the background, delivering functionality and a desktop-like experience. Back-end developers play a critical role in web development teams, and make sure that data or services requested by the front end system or software are delivered.

The back end is the combination of a database and software written in a server-side language, which is run on web servers, cloud-based servers, or a hybrid of both. In order to make the server, application, and database communicate with each other, back-end developers use languages like PHP, Ruby, Python, Java, and .Net to build an application, and tools like MySQL, Oracle, and SQL Server to find, save, or change data and serve it to the user in front end code.

After communicating with a [business](https://www.careerexplorer.com/degrees/business/) owner and understanding what their needs and technical requirements are, back-end developers use the aforementioned tools to create web applications with clean, well-documented code. They come up with the most effective and efficient solutions for engineering technology by converting and returning data into front end code a user can interact with, such as: filling out a form, creating a profile, shopping online, etc.

Responsibilities of a back-end developer can include working with:

* Database creation, integration, and management
* Back-end frameworks to build server-side software
* Web server technologies
* Cloud computing integration
* Server-side programming languages
* Operating systems
* Content management system development, deployment, and maintenance
* API integration
* Security settings and hack prevents
* Reporting—generating analytics and statistics
* Backup and restore technologies for a website’s files and DB

Back-end developers generally work with languages like Python, Ruby, PHP, Go, or server-side JavaScript. Because the technology that powers the web is based on open standards, there are many choices when it comes to what language a back-end developer should choose. This type of decision generally differs from company to company, and sometimes even within departments at a company. Modern web sites are typically constructed using a variety of languages. All of the commonly used languages generally have several web frameworks to choose from when making a website. Back-end developers should stay aware of upcoming languages and frameworks, as the industry moves quickly.