**Backend developer**

A backend developer is responsible for writing backend codes and communicating when user triggers any particular action.

**Skills :**

**1. Back-end programming language**

In the field of development, language is the base and for that, you need to have a strong command of languages. There are three major languages that giant **IT** firms us **java, python, and PHP.**

# 1.1. Java

It is one of the most robust programming languages, that is used by many big tech companies (Google, Amazon, Facebook) that have been using java due to its portability and extreme performance.

# 1.2. Python

Python is used to automate task, perform data analysis, build Websites, and much more.it is also supports a different range of programming styles such as functions, object-oriented, etc.

# 1.3. PHP

It is also one of the highly used languages among developers today. PHP powers today more than 80% of websites and is a useful language for the back end as it automates the task and eases the work of developers.

# 2. Knowledge of front-end technology

So now you have the basic knowledge of backend programming languages, now it’s turn to start with basic front-end language. Although it is not mandatory to master it, having basic skills required for this role such as HTML, CSS, and JavaScript.

## 3. Knowledge of backend framework

Once you’ve decided on the language which you need to work on, you Need to brush up skills with framework as well. **The frame work is a backbone of a language on a program on which you’ve working.**

### **3.1.** Spring boot for java

It’s an open-source and free platform built to support the backend coding of an application. It works on JavaScript and cross-platform and compatible with **Windows, Linux, macOS**, etc.

### **3.2.** Django for python

**Compatible with python,** it’s an open source and free platform that been highly appreciated and become popular among developers. The part about Django is, it uses less code and power to craft rapid app development.

### **3.3.** Laravel for PHP

it is an open-source web framework written in PHP that

follows the model-view-controller (MVC) architectural pattern. Laravel is intended for the development of web applications following the principles of model-viewcontroller (MVC) architecture.

## 4. Version control system

It is also known as the source control which is responsible for any changes that have to be done from time to time. **The version control system tracks every single modification of codes in a different database.** This becomes more helpful when a developer makes a mistake and wants to reverse it back and it helps in protecting source code from any such incidents. These are some of the most popular version control systems for backend developers.

### 4.1. **AWS code commits**

It is another version of the control system which is being **hosted by Amazon.** By using this, a user can easily store and manage data long along with the source code. It is a highly secured platform managed by the Git repository.

4.2. **Git*Hub***

Established in 2007, is an open-source community that has been designed to support developers. Due to its availability over the cloud, anyone from anywhere can view the code and it also allows developers to collab and contribute as they want. with the help this community, anyone can anywhere provide help for those who needs and due to its popularity. **Today millions of users are associated with this platform.**

4.3. **Git*Lab***

It allows users to collab on a single platform all the tasks. Doing so, helps in reducing the time frame increase productivity. In other, **it allows teams to build perfect software with the help a singular communication channel.**

## 5. Knowledge of database

When you’re working on a project, you must understand that the storage of data is very crucial as they carry a large amount of information. So, it is a must to have a good command over the database. The backend developer is responsible for creating a relational so that the data can be retrieved when required. Thus, to handle DBMS, developer use MySQL, SQL, PostgreSQL, MongoDB, etc.

## 6. Knowledge of API

Application programming interface or **API is responsible for establishing connections between different applications.** Just take an example, let’s say you are ordering some item from Alibaba via the mobile application, so here you’re establishing a connection with Alibaba’s API. Backend developers use these APIs to establish connections between different applications to enhance user experience. The most popular APIs among developers are JSON, SOAP, REST, GSON, etc.

## 7. Server Handling

Since backend developers are responsible to perform all the actions behind the curtains so it is a must to have a good command over handling the server. **A server is a cloud system that provides all the useful information and offers services such as file storage, database, and security to other systems connected to that network**. The details stored in the server are responsible for recovering, rearranging, stored information. Some of the best tools for server handling are Docker, Kubernetes, etc.

## 8. DSA (Data Structures and Algorithms)

A good knowledge of **DSA** (Data Structure and Algorithms) is also recommended to become a great back-end developer. It is necessary for efficient management and proper retrieval of data in order to prevent any memory leakage. DSA Is also important because it forms the base for modifying, organizing, and accessing data in programming, also, it is important that you learn Data Structure and Algorithms before becoming a back-end developer because it will help to make the code more optimized and efficient.

## 9. Problem Solving

Back-end development can be a tricky business therefore, the person handling it must have problem-solving abilities in order to do that work smoothly. A back-end developer is the backbone of any website as they are the main problem solvers and keep a check if the website is working in a proper manner or not. **So if you have a passion for becoming a back-end developer – you can also improve your problem-solving skills as they as you can**.

## 10. Communication skills

Backend development is a task where you need to focus otherwise things can get hampered. So this unique quality of working hard without any distractions can also make you a longer. But communication is the base of this job because you will have to work with a team on multiple projects with fellow developers. **You will also have to discuss various ideas, with clients, the manager, or your fellow teammates.** Therefore, be prepared to talk with people as it will lead to successful collaborations and projects too.