Backend

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Abstract—The back end of a web application refers to the server-side components responsible for managing data, processing requests, and generating responses. It includes the server, application, and database layers that work together to support the functionality of the application.

Index Terms—component, formatting, style, styling, insert

I. Introduction

The back end of a web application constitutes the core engine that powers its functionality. Unlike the front end, which users directly interact with, the back end operates behind the scenes, managing data, processing requests, and ensuring smooth communication between the server and the client. It encompasses various components such as servers, databases, and application logic, working together to deliver dynamic and interactive web experiences. In essence, the back end forms the backbone of the entire system, handling the heavy lifting necessary to execute the tasks requested by users and provide them with the desired outcomes.

II. What is the Back-End?

A. (Nestrategia, Web positioning agency in Madrid, 2022)

This term is used to refer to the logical area of any web page. We refer to the internal architecture of the site that ensures that all elements develop the correct function. It is not visible to the user's eyes and does not include any type of graphic element. It is the engineering function to be developed by the programmer, since it is based solely on the internal code of the page. This area is responsible, in addition to the functionality of the site, for security and optimization of resources. Those in charge of Back End development must efficiently handle various programming codes, in languages such as Java, PHP or .Net. These developers must be meticulous, since carelessness in their work results in the page crashing.

- **ASP.NET**: It is Microsoft's web development platform. It has Web Forms and MVC variants.
- **PHP**: Widely used in some of the main content managers such as WordPress.
- **Ruby**: Its Ruby on rails framework is also used.
- **Python**: Commonly used with Django as a framework.
- **Node.js**: More used in recent times, since it uses a language similar to client-side (JavaScript).

III. What functions are managed from the Back-End?

- All functions that make the development process simpler are carried out from the Back-End.
- Logic actions.
- Connections with databases.
- From the Back-End, the web server libraries are used, either to compress web images, to implement cache themes or others.
- The security of the websites is also maintained.
- Thanks to the Back-End, resources can be optimized so that the pages are lighter.

A. What is the profile of a Back-End developer?

Being a Back-End developer entails great complexity, since it requires years of study, constant practice, seriousness, a high attention span and many doses of concentration. Next, we will explain everything you need to know and control to become a successful Back-End developer.

1) In the first instance, you must handle the basics, which is the configuration of the servers; or at least, you should know enough about this point to be able to make reports to the systems manager.
2) You must also know how to manage at least one Content Management System (CMS), preferably WordPress, which is the most widespread.
3) Logic and order should be the two pillars on which your work is based.
4) You must know about programming methodologies, their fundamentals and be proficient in these languages, or at least one of them.

B. The importance of the Back-End

Throughout this article we will learn what the Front-End is and we will understand its intimate relationship with the Back-End. Both elements cannot live without each other, but the Back-End is vital if we want to develop a customized project for our company. To illustrate this, in the case of a corporate website we can have a graphic designer create a new design; while a Front-End expert will be in charge of laying it out, for example, in WordPress. In this case, as we see, it would not be necessary to have someone in charge of the Back-End, since WordPress itself assumes certain functions in this aspect, but everything changes when we want to build

a custom project that requires extra development. . This is when the figure of the Back-End developer, widely used by web development agencies, becomes essential.

REFERENCES

[1] Nestrategia, Agencia de posicionamiento web en Madrid. (2022, December 30). *¿Qué es Back End, Front End y Back Office y por qué es importante para tu web?* Agencia Inbound Marketing Madrid. https://nestrategia.com/desarrollo-web-back-end-front-end/