Desarrollo Back-end

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I. INTRODUCTION

Backend development, also known as server-side development, focuses on the logic and functionality that runs behind the scenes of a web application. It is responsible for managing business logic, database interaction and data manipulation before being presented to the user through the frontend.

II. ¿WHAT IS THE FRONTEND FOR?

The backend is all the hidden codes that are used to make a web page or application work correctly. In addition, the user experience depends on its structure and organization. Similarly, the backend is responsible for optimizing other elements and resources such as security and privacy on a website or application.

III. BACKEND ELEMENTS

- The backend consists of programming languages such as PHP, Python and C++ and frameworks.
- Servers control how users access files.
- Databases are organized and structured collections of data.
- Security is one of the most important elements within a website, as it ensures that visitors and their information are safe. This also includes preventing, as far as possible, cyber-attacks.

IV. PROGRAMMING LANGUAGES

- Node.js (JavaScript): Widely used to build backend applications in an efficient and scalable manner.
- Python (Django, Flask): Favored for its readability and ease of use, with frameworks such as Django and Flask facilitating web development.
- Java (Spring): With Spring as a framework, it provides a robust and modular structure for enterprise applications.
- Ruby (Ruby on Rails): With Rails, it enables rapid development and conventions that simplify programming.

V. DATABASE MANAGEMENT

- SQL vs. NoSQL: Choice between relational (SQL) and non-relational (NoSQL) databases depending on application requirements.
- ORM (Object-Relational Mapping): Facilitates interaction with the database by mapping application objects to database records.

VI. CONCLUSION

Backend development is the engine of a web application, providing the logic necessary for its operation. The choice of programming language and framework, efficient database management and the implementation of secure APIs are fundamental to building robust and scalable backend systems. Effective interfacing between the frontend and backend is essential to deliver a consistent and seamless user experience. In a constantly evolving digital environment, backend development plays a critical role in the security and stability of web applications, ensuring reliable performance and efficient data management.

VII. REFERENCES

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