

Back End

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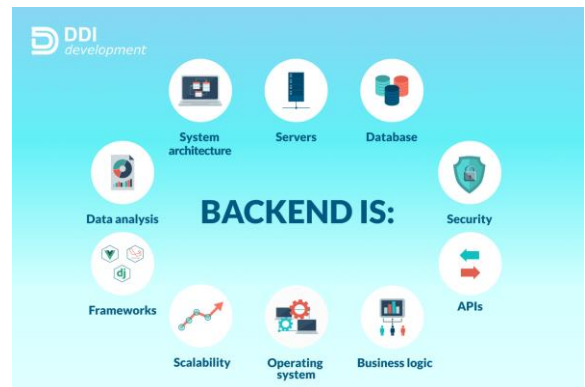
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I-What is back end?

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. In other words, the Back-End is the part or branch of web development responsible for making all the logic of a page work. It consists of the set of actions that happen within a website, but that we cannot see. An example of this is communication with the server. [1]

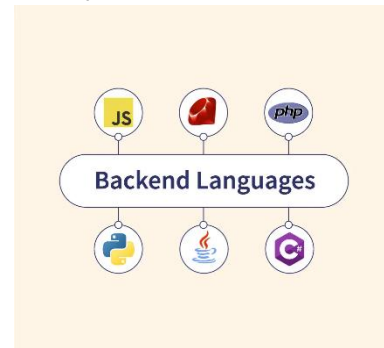
characteristics

- All functions that make the development process simpler are carried out from the Back end. [1]
- Logic actions. [1]
- Connections with databases. [1]
- 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. [1]
- Thanks to the Back end, resources can be optimized so that the pages are lighter. [1]



The most common languages for back end are:

- ASP.NET: It is Microsoft's web development platform. It has Web Forms and MVC variants. [1]
- PHP: Widely used in some of the main content managers such as WordPress.
- Ruby: Its Ruby on rails framework is also used. [1]
- Python: Commonly used with Django as a framework. [1]
- Node.js: More used in recent times, since it uses a language similar to client-side (JavaScript). [1]



back-end applications examples

- **Online Booking System:** An online booking system, like those used by airlines or hotels, is an example of a backend application. It handles availability, pricing, and customer reservations. [2]
- **Content Management System (CMS):** Applications such as WordPress, Drupal, or Joomla serve as the backend to manage and publish content on websites. [2]
- **Customer Relationship Management System (CRM):** CRM applications like Salesforce or HubSpot are examples of backend applications that store and manage customer data, sales, and business relationships. [2]
- **eCommerce Platforms:** Backend applications for e-commerce, like Magento, WooCommerce, or Shopify, manage the product catalog, orders, payments, and logistics. [2]
- **Inventory Management System:** Companies use backend applications to manage their inventories and control product stock levels. [2]
- **Data Backup and Storage System:** Applications that perform backups and store critical data for businesses and users. [2]
- **Data Analysis Applications:** Platforms like Google Analytics or custom analysis applications use the backend to collect, process, and present data on web traffic and user behavior. [2]

BIBLIOGRAFIAS IEEE

- [1] [En línea]. Available:
<https://nestrategia.com/desarrollo-web-back-end-front-end/>.
- [2] [En línea]. Available: <https://www.gluo.mx/en-US/blog/frontend-y-backend-que-son-y-cuales-son-sus-diferencias>.