Frontend vs Backend

Overview

Web Development is the development of a Website that can be static or dynamic. A static website is made purely using frontend technologies, exclusively HTML and CSS, whereas a dynamic website is much more advanced and includes developing both the frontend and backend of the website to serve the User's need on the internet.

Web Development includes the following process:
- Research
- Planning
- Design
- Development
    - **Frontend Development**
    - **Backend Development**
- Deploy
- Launch
- Maintainance

The frontend of a Website serves the client, i.e. the User Interface, whereas the backend of a Website supports the server, i.e., delivering relevant information to the User from the Database.

Frontend Development

The frontend of a Website is the visual representation that a user can see and interact with and is usually referred to as the client-side.

The Languages commonly used to develop the frontend are:
- HTML
- CSS
- Javascript
- Bootstrap/Tailwind (CSS Framework)

along with popular JS libraries/frameworks such as:
- React (library)
- AngularJS (framework)
- VueJS (framework)

Frontend Development gives the Website Structure, Styling and makes the website Interactive and Responsive.

Backend Development

The backend of a Website includes all the processes that happen behind the scenes, which enhances the user experience and makes a website dynamic, i.e. It handles all the User's requests and serves the User back with relevant information from the storage (Database). It sends all the information to the frontend that is to be displayed and therefore termed as the server-side.

The Languages Commonly used to develop backend are:
- Node.js
- PHP
- Java
- Ruby

along with various backend frameworks such as:
- Express
- Django

- Rails
- Spring
- Meteor

Backend Development gives the Website a Database to store relevant information to serve the User, helps in hosting the Website, handles the User requests and sends the appropriate response back to the User.

Real-Time Application Examples:

- **Netflix**
  - React with Node.js and Java
- **Paypal**
  - Angular with Node.js
- **Instagram**
  - PHP/ React Native with Django.
- **Airbnb**
  - React with Ruby on Rails
- **Amazon**
  - React/Angular with Java and MySQL