**Development, Testing, and Production Environments**

In software development, different environments are used to ensure that the software is developed, tested, and deployed effectively. Each environment serves a specific purpose and has distinct characteristics

**1. Development Environment**

* **Purpose**: This is where developers write, modify, and initially test their code.
* **Characteristics**:
  + Unstable and frequently changing as new code is added and modified.
  + Developers have the freedom to experiment and make changes without affecting other environments.
  + [Often includes tools and frameworks needed for development1](https://webisoft.com/articles/dev-vs-prod/).

**2. Testing Environment**

* **Purpose**: Dedicated space for running various tests on the software to identify and fix issues before deployment.
* **Characteristics**:
  + Closely resembles the production environment in terms of infrastructure and configuration.
  + Used for comprehensive testing, including functional, performance, security, and usability testing.
  + [Controlled access to ensure that tests do not affect the production environment1](https://webisoft.com/articles/dev-vs-prod/).

**3. Production Environment**

* **Purpose**: The live environment where the final version of the software is deployed and made available to end-users.
* **Characteristics**:
  + Stable, secure, and highly available to ensure a seamless user experience.
  + Any changes or updates are carefully planned, tested, and deployed to minimize disruptions.
  + [Real-world user interactions and data are handled in this environment](https://webisoft.com/articles/dev-vs-prod/" \t "_blank)[1](https://webisoft.com/articles/dev-vs-prod/).

These environments help ensure that software is developed, tested, and deployed in a controlled and efficient manner, reducing the risk of defects and ensuring a high-quality user experience.