Environment Stages

1. Dev environment :

The **Dev** environment is where developers work on their code. It's like a testing area where they write new features, fix bugs, or make changes to the software. When they finish, Jenkins automatically builds the code and runs some quick tests to make sure everything works properly.

Simple Example:

Imagine you're writing a story. Before you show it to anyone, you check it for spelling mistakes and grammar. The **Dev** environment is like that—checking your work before you show it to others.

2. Stage environment :

The **Stage** environment is like a "practice run" before the code is shown to the world. After the code passes in **Dev**, it goes to **Stage**. Here, the code is tested more thoroughly to make sure it works well with everything else, like a dress rehearsal before the final performance.

Simple Example:

Using the same story example, the **Stage** environment is like having someone else read your story to make sure it's clear and makes sense before you send it to your readers.

3. Prod environment :

The **Production (Prod)** environment is the live environment where the final version of the application is made available to real users. This is the most critical environment, and only thoroughly tested code from the Dev and Stage environments gets deployed here.

Example:

Once the code passes testing in the Stage environment, Jenkins deploys it to the production servers, making the new version available to the customers.

4. Why do we have separate Dev, Stage, and Prod environments in Jenkins?

Answer:

We use separate environments to ensure that code is tested at different stages of development.

- **Dev**: Ensures that the code works in isolation and passes unit tests.

- **Stage**: Tests the code in a controlled environment that mimics real-world usage.

- **Prod**: Deploys the code to the actual live environment for real users.

5. Interview Tip:

If asked about Jenkins environments in an interview, you can explain them in a straightforward manner like this:

- **Dev**: "It's where the development team tests their code first."

- **Stage**: "It's a replica of the live environment where additional testing takes place."

- **Prod**: "It's where the application goes live for real users."