

Branching Strategy

Three Main Branches:

1. **Develop Branch:** This is where new features and changes are actively developed. Developers work on this branch to add new functionalities, fix bugs, or make any improvements.
2. **Release Branch:** Once the features are ready in the develop branch, they are moved to the release branch. Here, the code is tested thoroughly (e.g., regression tests) to ensure everything works correctly without breaking the existing functionality.
3. **Master Branch:** This branch holds the stable version of the code that is currently live in production. It is the official version that end-users see and interact with. Only thoroughly tested and approved changes make it to the master branch.

Managing Hotfixes:

- **Hotfixes** are quick fixes for urgent issues found in the live version (master branch). When a problem arises, a hotfix branch is created directly from the master branch to address the issue quickly without disrupting the regular release process.
- After the hotfix is completed and tested, it is merged back into the master branch to resolve the live issue and then also merged into the develop and release branches to keep all branches synchronized.

Handling Regressions and Reverting Changes:

- If a hotfix needs to be reverted or if there are issues in the release, changes are rolled back efficiently to ensure the stability of the codebase. This helps avoid restarting the entire regression process.

Back Merges:

- **Back merging** is crucial for keeping all branches (develop, release, master) up-to-date. It ensures that any changes, including hotfixes, are properly

integrated across all branches to maintain consistency and prevent discrepancies.

1. **Develop Branch:** New features and changes are developed here.
2. **Release Branch:** Changes from the develop branch are moved here for thorough testing.
3. **Master Branch:** The stable, live version of the code.
4. **Hotfix:** Urgent fixes created directly from the master branch to address live issues and then merged back into all branches.

Summary of Steps:

1. Developers make changes in the **Develop Branch**.
2. Changes are moved to the **Release Branch** for testing.
3. After successful testing, changes are merged into the **Master Branch**.
4. For urgent live issues, create a **Hotfix** directly from the master, merge it back into master, develop, and release branches.