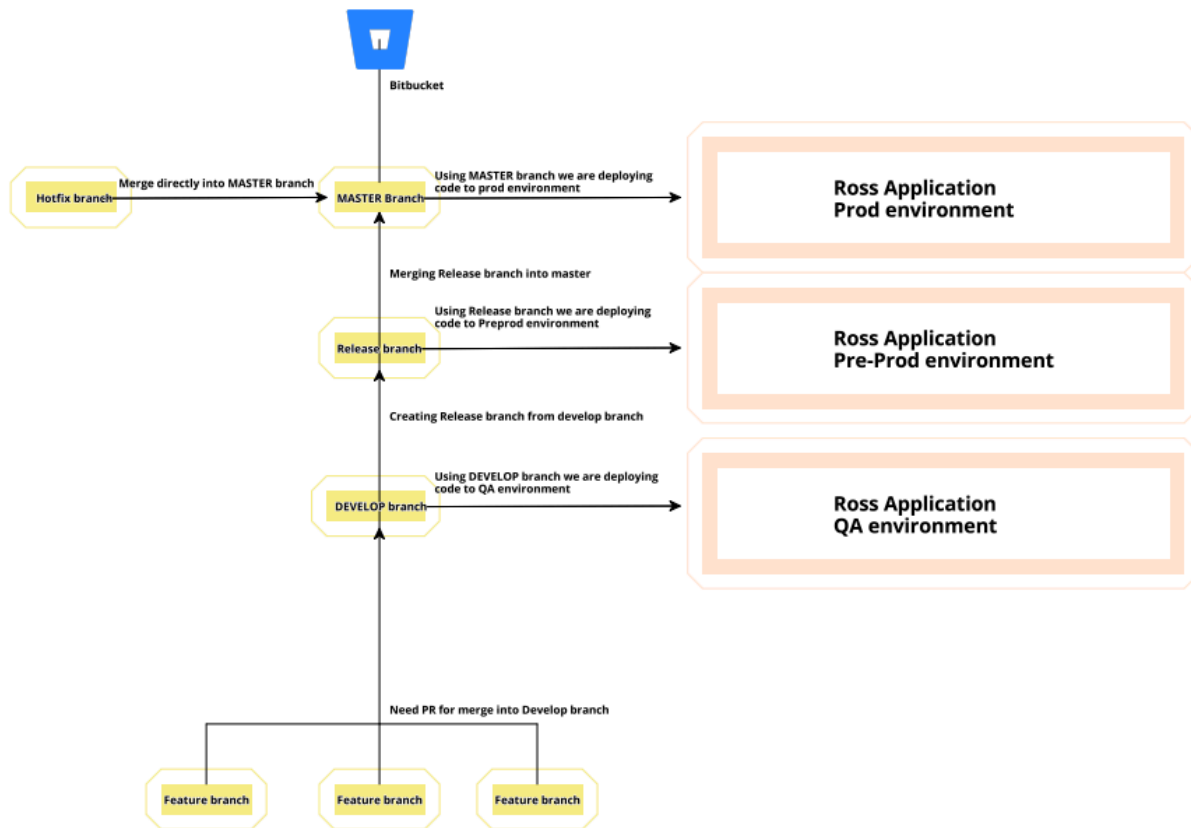


# Branching Strategy for ROSS Application



## Branch Types

### Main Branch

- **Purpose:** Production deployment
- **Naming Convention:** main or master
- **Deployment:** Manually triggered as per production deployment schedule
- **Approval:** Requires approver's approval for deployment to production

### Environment-Specific Branches

- **Release Branch**
  - **Purpose:** Pre-production deployment
  - **Naming Convention:** release/{version}

- **Deployment:** Automatically triggers pre-prod deployment pipeline
- **Dev Branch**
  - **Purpose:** Development and QA
  - **Naming Convention:** dev
  - **Deployment:** Automatically triggers QA environment pipelines

## Hotfix and Bugfix Branches

- **Hotfix Branch**
  - **Purpose:** Fix critical issues in production
  - **Naming Convention:** hotfix/{issue-id}
  - **Deployment:** Merges back into main and dev branches after fixes
- **Bugfix Branch**
  - **Purpose:** Fix bugs found during QA
  - **Naming Convention:** bugfix/{issue-id}
  - **Deployment:** Merges back into dev branch after fixes

## Workflow

1. **Feature Development**
  - Developers create feature branches from the dev branch.
  - Naming Convention: feature/{story-id}
  - Once development is complete, a pull request (PR) is created to merge the feature branch into the dev branch.
  - PR approval and passing tests (Snyk and SonarCloud) are required before merging.
  -
2. **QA Environment Deployment**
  - After successful Dev testing, the pipeline triggers deployment to the QA environment.
  - QA tests the changes; if issues are found, a bugfix branch is created from the dev branch.
  - Fixes are merged back into the dev branch, and the cycle repeats until QA approval.
3. **Pre-Production Deployment**
  - Once QA approve, a release branch is created from the dev branch.
  - The release branch is deployed to the pre-prod environment.
4. **Production Deployment**
  - After successful pre-prod testing, the release branch is merged into the main branch.
  - The production pipeline is manually triggered according to the deployment schedule.

- An additional approval layer ensures no deployment without approver's consent.

## 5. **Hotfix Deployment**

- For critical issues in production, a hotfix branch is created from the main branch.
- Fixes are applied and merged back into both the main and dev branches.