**Git Case Study**

**Git Workflow Architecture**

Github URL : <https://github.com/umeshkuduwa/gitCaseStudy.git>

1. For a gitflow Architecture, you need :
   1. Master Branch : Stable and production-ready code.
   2. Monthly Release Branch : Work on new features and bug fixes for the upcoming release in this branch.
   3. Feature Branch : Work on the features/fixes in these branches.
   4. Develop Branch : Regularly merge features from individual feature branches into this integration branch for testing.
2. In the master branch, all the production-ready code would be available.
3. In the Release branch, monthly release code would be available.
4. In the Feature branch, all the new feature would be developed.
5. In the Develop branch, all the new feature would be tested.
6. Once tested, it would then be merged with master to push for production.

Following are the git command used to accomplish the requirement :

umesh@Umesh MINGW64 ~/git\_Case\_Study (master)

$ git branch

integration

\* master

new-feature

release-2024-01

release-2024-02

umesh@Umesh MINGW64 ~/git\_Case\_Study (master)

$ git checkout -b release-2024-03

Switched to a new branch 'release-2024-03'

umesh@Umesh MINGW64 ~/git\_Case\_Study (release-2024-03)

$ git checkout new-feature

Switched to branch 'new-feature'

umesh@Umesh MINGW64 ~/git\_Case\_Study (new-feature)

$ echo "Feature 3 Added for March!" >> feature1.txt

umesh@Umesh MINGW64 ~/git\_Case\_Study (new-feature)

$ cat feature1.txt

Feature 1!

Feature 2 Added aswell for February!

Feature 3 Added for March!

umesh@Umesh MINGW64 ~/git\_Case\_Study (new-feature)

$ git add .

warning: in the working copy of 'feature1.txt', LF will be replaced by CRLF the next time Git touches it

umesh@Umesh MINGW64 ~/git\_Case\_Study (new-feature)

$ git commit -m "Feature 3 Included for March Month!"

[release-2024-03 beb976b] Feature 3 Included for March Month!

1 file changed, 1 insertion(+)

umesh@Umesh MINGW64 ~/git\_Case\_Study (new-feature)

$ git checkout release-2024-03

Switched to branch ‘release-2024-03’

umesh@Umesh MINGW64 ~/git\_Case\_Study (release-2024-03)

$ git merge new-feature

Updating 78f2cee..beb976b

Fast-forward

feature1.txt | 1 +

1 file changed, 1 insertion(+)

umesh@Umesh MINGW64 ~/git\_Case\_Study (release-2024-03)

$ cat feature1.txt

Feature 1!

Feature 2 Added aswell for February!

Feature 3 Added for March!

umesh@Umesh MINGW64 ~/git\_Case\_Study (release-2024-03)

$ git checkout integration

Switched to branch ‘integration’

umesh@Umesh MINGW64 ~/git\_Case\_Study (integration)

$ git merge release-2024-03

Updating 78f2cee..beb976b

Fast-forward

feature1.txt | 1 +

1 file changed, 1 insertion(+)

umesh@Umesh MINGW64 ~/git\_Case\_Study (integration)

$ cat feature1.txt

Feature 1!

Feature 2 Added aswell for February!

Feature 3 Added for March!

umesh@Umesh MINGW64 ~/git\_Case\_Study (integration)

$ git checkout master

Switched to branch 'master'

umesh@Umesh MINGW64 ~/git\_Case\_Study (master)

$ cat feature1.txt

Feature 1!

Feature 2 Added aswell for February!

umesh@Umesh MINGW64 ~/git\_Case\_Study (master)

$ git merge integration

Updating 78f2cee..beb976b

Fast-forward

feature1.txt | 1 +

1 file changed, 1 insertion(+)

umesh@Umesh MINGW64 ~/git\_Case\_Study (master)

$ cat feature1.txt

Feature 1!

Feature 2 Added aswell for February!

Feature 3 Added for March!

umesh@Umesh MINGW64 ~/git\_Case\_Study (master)

$ git tag -a v2024.03 -m "Release for March Month!"

umesh@Umesh MINGW64 ~/git\_Case\_Study (master)

$ git push --tags

Enumerating objects: 6, done.

Counting objects: 100% (6/6), done.

Delta compression using up to 12 threads

Compressing objects: 100% (3/3), done.

Writing objects: 100% (4/4), 457 bytes | 457.00 KiB/s, done.

Total 4 (delta 0), reused 0 (delta 0), pack-reused 0

remote: This repository moved. Please use the new location:

remote: https://github.com/umeshkuduwa/gitCaseStudy.git

To https://github.com/umeshkuduwa/GitCaseStudy.git

\* [new tag] v2024.03 -> v2024.03

umesh@Umesh MINGW64 ~/git\_Case\_Study (master)

$

Comparing 2 Pushes for March and February :

As observed, feature 3 is added on v2024.03 release.

