ATYPON

Git Assignment

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Abstract

This Report is to explain Git Assignment and give example for Git Flow step by step.

Introduction

This report aims to explain the GitHub assignment give to the student in the Atypon training program and all the steps to solve it

Assignment

This Git Assignment in to build a git workflow as figure 1:

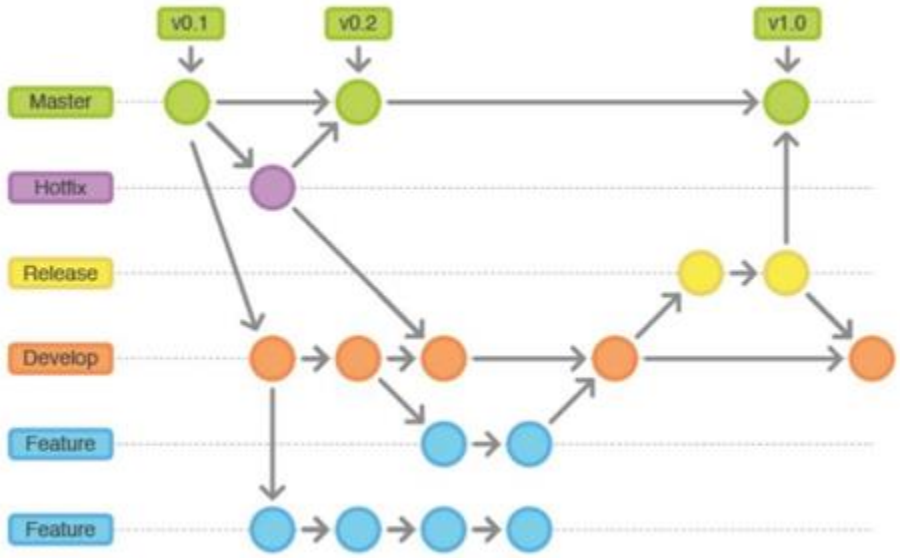

Figure 1

Solution

Project

In this solution I created a calculator.java files and I will add more than one feature by the time to the file.

So, I divided the branches into two collaborators: collaborato1, collaborato2.

• collaborator1 is the responsible for the Main, Hotfix, Release, and Develop branches

• collaborator2 is responsible for the feature1, feature2, and Develop branches.

Steps

Here we can start build git workflow as the following steps:

1. Create a remote repository in GitHub as figure 2

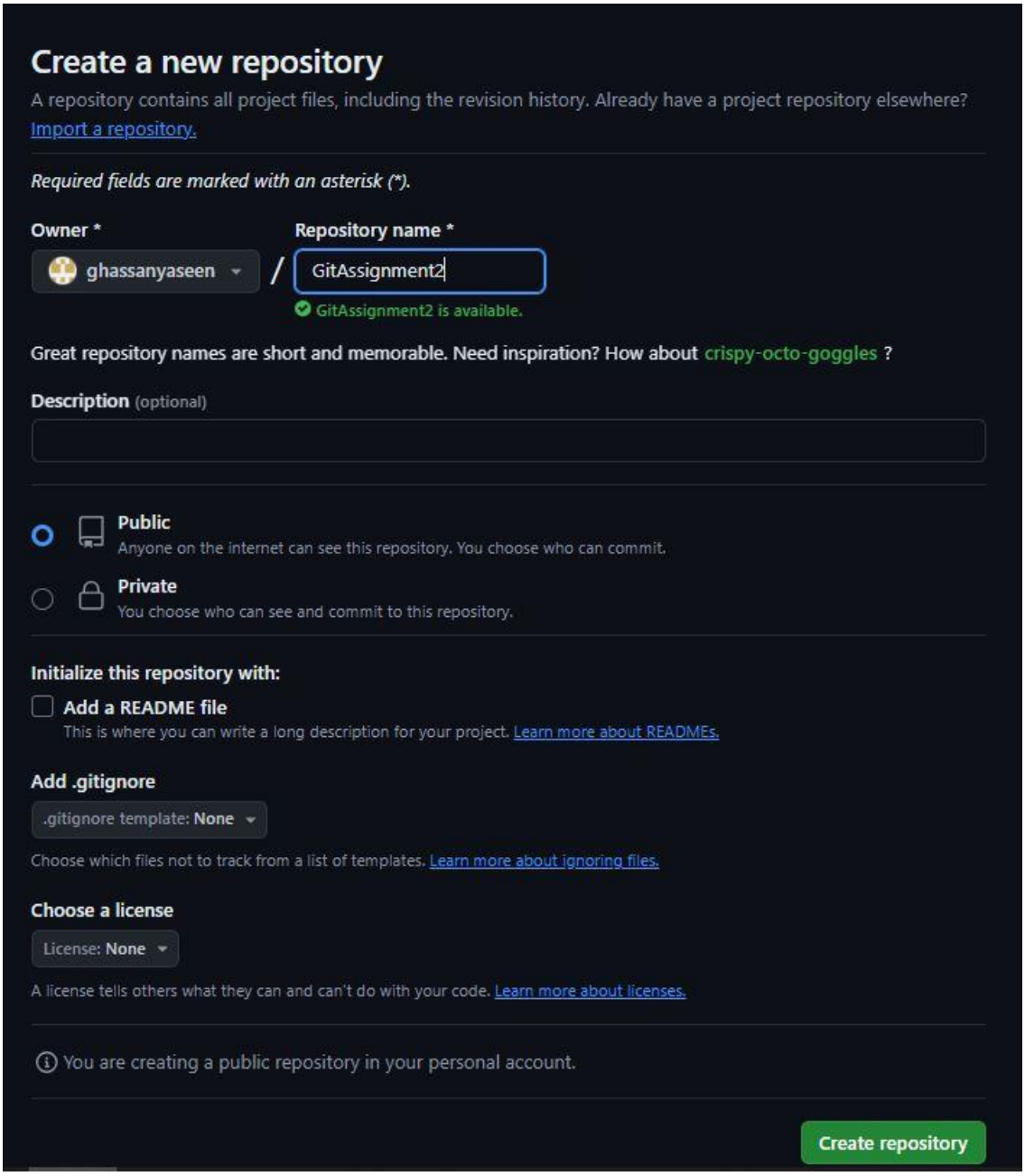

Figure 2

2. Clone the repository locally using collaborator1 as figure 3

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~
$ cd "C:\Users\wwwgh\OneDrive\Desktop\Atypon\Homeworks\Git Assignment\collaborator1"

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1
$ git clone https://github.com/ghassanyaseen/GitAssignment2.git
Cloning into 'GitAssignment2'...
warning: You appear to have cloned an empty repository.

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1
$ ls
GitAssignment2/

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1
$ cd GitAssignment2/
```

Figure 3

3. Create ‘Main.java’ and commit it and push it in main branch as figure 4.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (main)
$ git add .

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (main)
$ git status
On branch main

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   Main.java


wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (main)
$ git commit -m "create main.java by collaborator1"
[main (root-commit) 0596e56] create main.java by collaborator1
 1 file changed, 7 insertions(+)
 create mode 100644 Main.java

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (main)
$ git push --all
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 334 bytes | 334.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/ghassanyaseen/GitAssignment2.git
 * [new branch]      main -> main
```

Figure 4

4. Create the develop branch as figure 5:

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (main)
$ git checkout -b develop
Switched to a new branch 'develop'
```

Figure 5

5. Connect the local develop branch with the remote one to pull any change in the future as figure 6.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (develop)
$ git branch --set-upstream-to=origin/develop
branch 'develop' set up to track 'origin/develop'.
```

Figure 6

6. Create collaborator2 and clone the repository branch as figure 7.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~
$ cd "C:\Users\wwwgh\OneDrive\Desktop\Atypon\Homeworks\Git Assignment\collaborator2"

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2
$ git clone https://github.com/ghassanyaseen/GitAssignment2.git
Cloning into 'GitAssignment2'...
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (5/5), done.
remote: Total 6 (delta 2), reused 4 (delta 0), pack-reused 0
Receiving objects: 100% (6/6), done.
Resolving deltas: 100% (2/2), done.

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2
$ cd GitAssignment2/
```

Figure 7

7. Connect the local develop with the remote develop in calibrator2 as figure 8.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (main)
$ git checkout -b develop origin/develop
Switched to a new branch 'develop'
branch 'develop' set up to track 'origin/develop'.
```

Figure 8

8. Create the feature1 branch and add feature1.java and push it by collaborator2 as figure 9.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (develop)
$ git checkout -b feature1
Switched to a new branch 'feature1'

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (feature1)
$ git add .

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (feature1)
$ git status
On branch feature1
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   feature1.java


wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (feature1)
$ git commit -m "add feature1.java by collaborator2"
[feature1 c9d28a1] add feature1.java by collaborator2
 1 file changed, 49 insertions(+)
 create mode 100644 feature1.java

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (feature1)
$ git push --all
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 761 bytes | 761.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'feature1' on GitHub by visiting:
remote:      https://github.com/ghassanyaseen/GitAssignment2/pull/new/feature1
remote:
To https://github.com/ghassanyaseen/GitAssignment2.git
 * [new branch]      feature1 -> feature1
```

Figure 9

9. And then we add feature2 and push it as figure 10.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (feature1)
$ git add .

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (feature1)
$ git status
On branch feature1
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   feature2.java


wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (feature1)
$ git commit -m "add feature2.java by collaborator2"
[feature1 7245421] add feature2.java by collaborator2
 1 file changed, 64 insertions(+)
 create mode 100644 feature2.java

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (feature1)
$ git push --all
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 879 bytes | 879.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/ghassanyaseen/GitAssignment2.git
   c9d28a1..7245421  feature1 -> feature1
```

Figure 10

10. Then collaborator2 decided to continue work on the develop branch and dev1.java and push it as figure 11.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (feature1)
$ git checkout develop
Switched to branch 'develop'
Your branch is up to date with 'origin/develop'.

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (develop)
$ git add .

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (develop)
$ git status
On branch develop
Your branch is up to date with 'origin/develop'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   dev1.java


wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (develop)
$ git commit -m "add dev1.java by collaborator2"
[develop df2c5c9] add dev1.java by collaborator2
 1 file changed, 44 insertions(+)
 create mode 100644 dev1.java

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (develop)
$ git push --all
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 744 bytes | 744.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/ghassanyaseen/GitAssignment2.git
   0596e56..df2c5c9  develop -> develop
```

Figure 11

11. After this time collaborator1 decided to create a hotfix branch and apply the new version from the code to the main. So, collaborator1 create the hotfix branch and develop branch and create the ‘hotfix.java’ file to be the (V0.2) from the program as figure 11:

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (main)
$ git checkout -b hotfix
Switched to a new branch 'hotfix'

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (hotfix)
$ git add .

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssig
nment2 (hotfix)
$ git status
On branch hotfix
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   hotfix.java


wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (hotfix)
$ git commit -m "create hotfix.java by collaborator1"
[hotfix 3a7932f] create hotfix.java by collaborator1
 1 file changed, 42 insertions(+)
 create mode 100644 hotfix.java

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (hotfix)
$ pit push --all
```

Figure 12

12. Merge the hotfix with the main branch as figure 13.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (develop)
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (main)
$ git merge hotfix -m "merge hotfix with the main"
Updating 0596e56..3a7932f
Fast-forward (no commit created; -m option ignored)
 hotfix.java | 42 ++++++++++++++++++++++++++++++++++++++++++++
 1 file changed, 42 insertions(+)
 create mode 100644 hotfix.java

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (main)
$ git push --all
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/ghassanyaseen/GitAssignment2.git
   0596e56..3a7932f  main -> main
```

Figure 13

13. Then collaborator1 merges the new version (V0.2) to the develop branch after he pull the develop changes as figure 17.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (main)
$ git checkout develop
Switched to branch 'develop'
Your branch is up to date with 'origin/develop'.

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (develop)
$ git merge develop -m "merge hotfix with the develop"
Already up to date.

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (develop)
$ git merge hotfix -m "merge hotfix with the develop"
Merge made by the 'ort' strategy.
 hotfix.java | 42 ++++++++++++++++++++++++++++++++++++++++
 1 file changed, 42 insertions(+)
 create mode 100644 hotfix.java

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (develop)
$ git push --all
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (2/2), 352 bytes | 352.00 KiB/s, done.
Total 2 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/ghassanyaseen/GitAssignment2.git
   df2c5c9..8ae5fb3  develop -> develop
```

14. Callobator2 decided to create a feature2 branch and add feature3.java and push it as figure 14.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (develop)
$ git checkout -b feature2
Switched to a new branch 'feature2'

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (feature2)
$ git add .

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (feature2)
$ git status
On branch feature2
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   feature3.java


wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (feature2)
$ git commit -m "add feature3.java by collaborator2"
[feature2 d7dc381] add feature3.java by collaborator2
 1 file changed, 59 insertions(+)
 create mode 100644 feature3.java

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (feature2)
$ git push --all
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 12 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (6/6), 1.16 KiB | 594.00 KiB/s, done.
Total 6 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), done.
remote:
remote: Create a pull request for 'feature2' on GitHub by visiting:
remote:      https://github.com/ghassanyaseen/GitAssignment2/pull/new/feature2
remote:
To https://github.com/ghassanyaseen/GitAssignment2.git
 * [new branch]      feature2 -> feature2
 ! [rejected]        develop -> develop (fetch first)
 ! [rejected]        main -> main (non-fast-forward)
error: failed to push some refs to 'https://github.com/ghassanyaseen/GitAssignment2.git'
hint: Updates were rejected because a pushed branch tip is behind its remote
hint: counterpart. If you want to integrate the remote changes, use 'git pull'
hint: before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.
```

Figure 14

Here we have an error message because collaborator1 changed the develop branch and the main branch, so we need to fix that error we need to go to those two branches and pull the new versions and then push everything as figure 15.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (main)
$ git pull
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 2 (delta 0), reused 2 (delta 0), pack-reused 0
Unpacking objects: 100% (2/2), 332 bytes | 23.00 KiB/s, done.
From https://github.com/ghassanyaseen/GitAssignment2
   0596e56..3a7932f  main       -> origin/main
   df2c5c9..8ae5fb3  develop    -> origin/develop
Updating 0596e56..3a7932f
Fast-forward
 hotfix.java | 42 ++++++++++++++++++++++++++++++++++++++++
 1 file changed, 42 insertions(+)
 create mode 100644 hotfix.java

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (main)
$ git checkout develop
Switched to branch 'develop'
Your branch is behind 'origin/develop' by 2 commits, and can be fast-forwarded.
  (use "git pull" to update your local branch)

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (develop)
$ git pull
Updating df2c5c9..8ae5fb3
Fast-forward
 hotfix.java | 42 ++++++++++++++++++++++++++++++++++++++++
 1 file changed, 42 insertions(+)
 create mode 100644 hotfix.java
```

Figure 15

15. The collaborator2 decided to merge feature2 with the develop branch as figure 16.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (develop)
$ git merge feature2 -m "merge feature2 with develop"
Merge made by the 'ort' strategy.
 feature3.java | 59 +++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 1 file changed, 59 insertions(+)
 create mode 100644 feature3.java

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (develop)
$ git push --all
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (2/2), 314 bytes | 314.00 KiB/s, done.
Total 2 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/ghassanyaseen/GitAssignment2.git
   8ae5fb3..c05ec88  develop -> develop
```

Figure 16

16. Then collaborator2 can add dev2.java and push it to the develop branch as figure 18.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (develop)
$ git add .

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (develop)
$ git status
On branch develop
Your branch is up to date with 'origin/develop'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   dev2.java


wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (develop)
$ git commit -m "add dev2.java by collaborator2"
[develop 11f9969] add dev2.java by collaborator2
 1 file changed, 45 insertions(+)
 create mode 100644 dev2.java

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator2/GitAssignment2 (develop)
$ git push --all
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 753 bytes | 753.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/ghassanyaseen/GitAssignment2.git
   c05ec88..11f9969  develop -> develop
```

Figure 18

17. After the code is ready to release finally collaborator1 creates the release branch and connects it with the remote branch after pushed it as figure 19.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (develop)
$ git checkout -b release
Switched to a new branch 'release'

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (release)
$ git merge develop -m "merge develop with release"
Already up to date.

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (release)
$ git push --all
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'release' on GitHub by visiting:
remote:      https://github.com/ghassanyaseen/GitAssignment2/pull/new/release
remote:
To https://github.com/ghassanyaseen/GitAssignment2.git
 * [new branch]      release -> release

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (release)
$ git branch --set-upstream-to=origin/release
branch 'release' set up to track 'origin/release'.
```

Figure 19

18. Add release.java file and push it to the branch as figure 20.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (release)
$ git branch --set-upstream-to=origin/release
branch 'release' set up to track 'origin/release'.

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (release)
$ git add .

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (release)
$ git status
On branch release
Your branch is up to date with 'origin/release'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   release.java


wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (release)
$ git commit -m "add release.java by collaborator1"
[release 980f029] add release.java by collaborator1
 1 file changed, 75 insertions(+)
 create mode 100644 release.java

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (release)
$ git push --all
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 12 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 878 bytes | 878.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/ghassanyaseen/GitAssignment2.git
   11f9969..980f029  release -> release
```

Figure 20

19. Merge the release branch to the main branch as figure 21.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (release)
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (main)
$ git merge release -m "merge release with the main"
Updating 3a7932f..980f029
Fast-forward (no commit created; -m option ignored)
 dev1.java     | 44 ++++++++++++++++++++++++++++++++++++++++
 dev2.java     | 45 ++++++++++++++++++++++++++++++++++++++++
 feature3.java | 59 +++++++++++++++++++++++++++++++++++++++++++++++++++++++
 release.java  | 75 +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 4 files changed, 223 insertions(+)
 create mode 100644 dev1.java
 create mode 100644 dev2.java
 create mode 100644 feature3.java
 create mode 100644 release.java

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (main)
$ git push --all
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/ghassanyaseen/GitAssignment2.git
   3a7932f..980f029  main -> main
```

Figure 21

20. Figure 22 shows the last diagram to the network.

```
wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (main)
$ git checkout develop
Switched to branch 'develop'
Your branch is up to date with 'origin/develop'.

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (develop)
$ git merge release -m "merge release with the develop"
Updating 11f9969..980f029
Fast-forward (no commit created; -m option ignored)
 release.java | 75 +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 1 file changed, 75 insertions(+)
 create mode 100644 release.java

wwwgh@DESKTOP-ITJQMER MINGW64 ~/OneDrive/Desktop/Atypon/Homeworks/Git Assignment/collaborator1/GitAssignment2 (develop)
$ git push --all
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/ghassanyaseen/GitAssignment2.git
   11f9969..980f029  develop -> develop
```

Figure 22

And figure 23 will show you the final diagram.

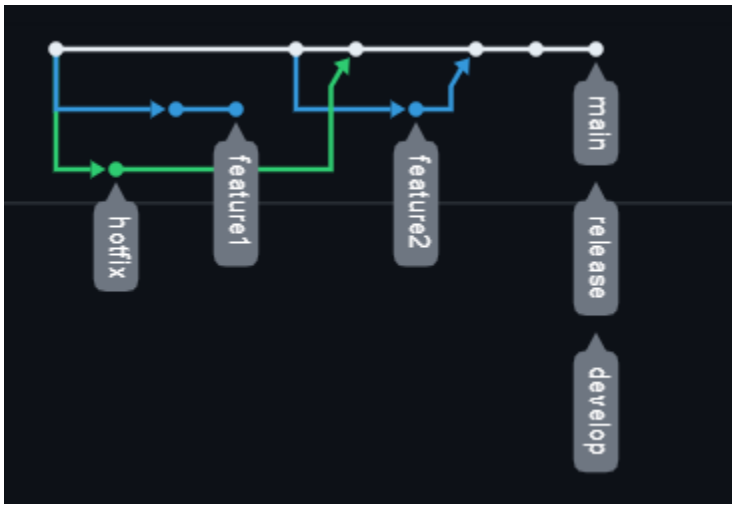

Figure 23