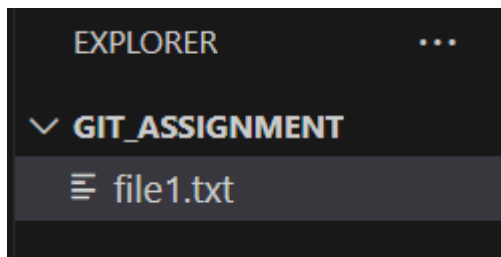


Create new repository with a template



Initialize git-flow

```
esktop/Git_Assignment/.git/  
No branches exist yet. Base branches must be created now.  
Branch name for production releases: [master]  
Branch name for "next release" development: [develop]  
  
How to name your supporting branch prefixes?  
Feature branches? [feature/]  
Bugfix branches? [bugfix/]  
Release branches? [release/]  
Hotfix branches? [hotfix/]  
Support branches? [support/]
```

Create a feature branch for project setup with the proper Zoho task ID (example: TP2-T1299_Project_Setup)

```
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git checkout -b Rupali-GitPracticalExam-feature-GitExercise  
Switched to a new branch 'Rupali-GitPracticalExam-feature-GitExercise'
```

Create a sub-branch from the project setup branch and perform squash, reset, rebase and cherrypick .

```
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git checkout -b Rupali-GitPracticalExam-SubBranch-GitExercise  
Switched to a new branch 'Rupali-GitPracticalExam-SubBranch-GitExercise'
```

1. Create a branch from the develop

2. Add a commit message hook to the repo.

```

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git switch Rupali-GitPracticalExam-SubBranch-GitExercise
PS C:\Users\rupali.jain\Desktop\Git_Assignment> code file2.txt
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git add .
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git status
On branch Rupali-GitPracticalExam-SubBranch-GitExercise
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   file2.txt

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git commit -m "file2.txt added"
[Rupali-GitPracticalExam-SubBranch-GitExercise d924be9] file2.txt added
1 file changed, 1 insertion(+)
create mode 100644 file2.txt

```

3. Perform multiple commits in the new branch

```

PS C:\Users\rupali.jain\Desktop\Git_Assignment> code file2.txt
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git add .
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git status
On branch Rupali-GitPracticalExam-SubBranch-GitExercise
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git commit -m "file2.txt added"
[Rupali-GitPracticalExam-SubBranch-GitExercise d924be9] file2.txt added
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git add .
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git status
On branch Rupali-GitPracticalExam-SubBranch-GitExercise
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git commit -m "file3.txt added"
[Rupali-GitPracticalExam-SubBranch-GitExercise 39183f9] file3.txt added
1 file changed, 1 insertion(+)
create mode 100644 file3.txt
PS C:\Users\rupali.jain\Desktop\Git_Assignment> code file4.txt
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git add .
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git status
On branch Rupali-GitPracticalExam-SubBranch-GitExercise
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   file4.txt

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git commit -m "file4.txt added"
[Rupali-GitPracticalExam-SubBranch-GitExercise b784fc5] file4.txt added
1 file changed, 1 insertion(+)
create mode 100644 file4.txt

```

4. Create PR to develop.

```

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git pull
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (3/3), 938 bytes | 93.00 KiB/s, done.
From https://github.com/rj1563/Git-Assignment
   c0279d3..eeb0ebf  develop    -> origin/develop
Updating c0279d3..eeb0ebf
Fast-forward
 Demo.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 Demo.txt

```

5. PR should be small in size, It's recommended to do one commit per PR. However, based on the situation we can have multiple commits in PR. e.g. if someone is doing 10 bug fixes which are one-liner fixes in such cases instead of 10 different PRs you can do 10 commits in a single PR.

```

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git pull
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (3/3), 973 bytes | 139.00 KiB/s, done.
From https://github.com/rj1563/Git-Assignment
   eeb0ebf..7f34b5c  develop    -> origin/develop
Updating eeb0ebf..7f34b5c
Fast-forward
 Demo2.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 Demo2.txt

```

6. Create another branch from develop given your previous PR is still in review state
7. Now commit something in your current branch and push it
8. In the meantime, your previous PR has been merged to develop

```

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git switch develop
Already on 'develop'
Your branch is up to date with 'origin/develop'.
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git checkout -b newBranch
Switched to a new branch 'newBranch'
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git status
On branch newBranch
nothing to commit, working tree clean
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git add .
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git commit -m "newFile.txt added"
[newBranch fcf7d7d] newFile.txt added
1 file changed, 1 insertion(+)
create mode 100644 newFile.txt

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git push --set-upstream origin newBranch
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 311 bytes | 311.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'newBranch' on GitHub by visiting:
remote:   https://github.com/rj1563/Git-Assignment/pull/new/newBranch
remote:
To https://github.com/rj1563/Git-Assignment.git
 * [new branch]      newBranch -> newBranch
branch 'newBranch' set up to track 'origin/newBranch' by rebasing.

```

9. Create a PR for the current branch given your branch should be up to date with develop branch

```

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git pull
remote: Enumerating objects: 1, done.
remote: Counting objects: 100% (1/1), done.
remote: Total 1 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (1/1), 901 bytes | 901.00 KiB/s, done.
From https://github.com/rj1563/Git-Assignment
 1d90996..633962a  develop    -> origin/develop
Already up to date.

```

10. For any new build release add a version tag to that specific commit to keep track of each version.

```

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git tag v1.4-lw
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git tag
v1.4-lw

```

11. Create 2 another branch (3rd and 4th) from develop, push read me changes to 3rd branch.

```
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git switch thirdBranch
Switched to branch 'thirdBranch'

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git push --set-upstream origin thirdBranch
remote:
remote:      https://github.com/rj1563/Git-Assignment/pull/new/thirdBranch
remote:
To https://github.com/rj1563/Git-Assignment.git
branch 'thirdBranch' set up to track 'origin/thirdBranch' by rebasing.

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git add .
On branch thirdBranch
Your branch is up to date with 'origin/thirdBranch'.

    (use "git restore --staged <file>..." to unstage)
        new file:   README.md

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git commit -m "readme.md added"
[thirdBranch 077cdd8] readme.md added
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 313 bytes | 313.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/rj1563/Git-Assignment.git
633962a..077cdd8  thirdBranch -> thirdBranch

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git branch
  Rupali-GitPracticalExam-SubBranch-GitExercise
  Rupali-GitPracticalExam-feature-GitExercise
  develop
  fourthBranch
  master
  newBranch
* thirdBranch
```

12. Cherry pick 3rd branch's commit to 4th branch.

```

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git switch fourthBranch
Switched to branch 'fourthBranch'
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git cherry-pick 077cdd8
[fourthBranch e17467c] readme.md added
Date: Fri Jan 17 17:40:50 2025 +0530
1 file changed, 1 insertion(+)
create mode 100644 README.md
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git log --oneline
e17467c (HEAD -> fourthBranch) readme.md added
633962a (origin/develop, develop) Merge pull request #1 from rj1563/newBranch
fcf7d7d (tag: v1.4-lw, origin/newBranch, newBranch) newFile.txt added
1d90996 Create Demo3.txt
7f34b5c Create Demo2.txt
eeb0ebf Create Demo.txt
c0279d3 hello.txt added
0f8860c (master) Initial commit

```

13. Change commit message in 4th branch

```

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git switch fourthBranch
Already on 'fourthBranch'
PS C:\Users\rupali.jain\Desktop\Git_Assignment> code Demo4.txt
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git add .
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git commit -m "demo4.txt added"
[fourthBranch 87cae3b] demo4.txt added
1 file changed, 1 insertion(+)
create mode 100644 Demo4.txt
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git commit --amend -m "commit message updated"
[fourthBranch 217d044] commit message updated
Date: Fri Jan 17 17:58:01 2025 +0530
1 file changed, 1 insertion(+)
create mode 100644 Demo4.txt

```

14. add 3 commit to 4th branch and delete last commit.

```
PS C:\Users\rupali.jain\Desktop\Git_Assignment> code Demo5.txt
PS C:\Users\rupali.jain\Desktop\Git_Assignment> code Demo6.txt
PS C:\Users\rupali.jain\Desktop\Git_Assignment> code Demo7.txt
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git add .
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git status
On branch fourthBranch
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   Demo5.txt
        new file:   Demo6.txt
        new file:   Demo7.txt

PS C:\Users\rupali.jain\Desktop\Git_Assignment> git commit -m "Three demo files added"
[fourthBranch 28d6a82] Three demo files added
3 files changed, 3 insertions(+)
create mode 100644 Demo5.txt
create mode 100644 Demo6.txt
create mode 100644 Demo7.txt
```

```
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git reset --hard HEAD~1
HEAD is now at 217d044 commit message updated
PS C:\Users\rupali.jain\Desktop\Git_Assignment> git log --oneline
217d044 (HEAD -> fourthBranch) commit message updated
e17467c readme.md added
633962a (origin/develop, develop) Merge pull request #1 from rj1563/newBranch
fcf7d7d (tag: v1.4-lw, origin/newBranch, newBranch) newFile.txt added
1d90996 Create Demo3.txt
7f34b5c Create Demo2.txt
eeb0ebf Create Demo.txt
c0279d3 hello.txt added
0f8860c (master) Initial commit
```