

GitHub Exercise: <https://github.com/Kishor-Malakar/sample-project>

Case Study: Git and GitHub Workflow Exercise Background: You are part of a development team working on a small project called "Sample Project". The project is designed to serve as a foundation for your team's Git and GitHub workflow training. The team has decided to host the project on GitHub to facilitate collaboration, version control, and centralized code management. Your task is to initialize the project in Git, push it to a remote GitHub repository, and practice working with branches to simulate feature development and maintenance.

```
PS I:\NexTurn\KishorMalakar-NexTurn-Program\M2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> git init
Initialized empty Git repository in I:\NexTurn\KishorMalakar-NexTurn-Program\M2_Git&Agile_Assignments\Assignment_Set_Two\sample-project\.git/
PS I:\NexTurn\KishorMalakar-NexTurn-Program\M2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> git remote add origin https://github.com/Kishor-Malakar/sample-project.git

PS I:\NexTurn\KishorMalakar-NexTurn-Program\M2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> git add .
PS I:\NexTurn\KishorMalakar-NexTurn-Program\M2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> touch .gitignore
>> git add .
>> git commit -m "Initial commit"
>> git branch -M main
>> git push -u origin main
>>
touch : The term 'touch' is not recognized as the name of a cmdlet, function, script file, or operable program. Check the spelling of the name, or if included, verify that the path is correct and try again.
At line:1 char:1
+ touch .gitignore
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (touch:String) [], CommandNotFoundException
+ FullyQualifiedErrorId : CommandNotFoundException

[main (root-commit) 6949cdd] Initial commit
1 file changed, 1 insertion(+)
create mode 100644 hello.txt
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 220 bytes | 220.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Kishor-Malakar/sample-project.git
* [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
PS I:\NexTurn\KishorMalakar-NexTurn-Program\M2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> echo

cmdlet Write-Output at command pipeline position 1
Supply values for the following parameters:
InputObject[0]:
PS I:\NexTurn\KishorMalakar-NexTurn-Program\M2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> echo "# Sample Project" > README.md
>> echo "This is a foundational project for Git and Github workflow practice." >> README.md
>>
PS I:\NexTurn\KishorMalakar-NexTurn-Program\M2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> git checkout -b feature/update-readme
>> git checkout -b feature/update-readme
>>
```

```

>>
Switched to a new branch 'feature/update-readme'
fatal: a branch named 'feature/update-readme' already exists
PS I:\NexTurn\KishorMalakar-NexTurn-Program\W2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> git add README.md
>>
PS I:\NexTurn\KishorMalakar-NexTurn-Program\W2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> git commit -m "Add README.md with project description"
>>
[feature/update-readme 2e27b94] Add README.md with project description
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 README.md
PS I:\NexTurn\KishorMalakar-NexTurn-Program\W2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> git push -u origin feature/update-readme
>>
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 418 bytes | 418.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'feature/update-readme' on GitHub by visiting:
remote:   https://github.com/Kishor-Malakar/sample-project/pull/new/feature/update-readme
remote:
To https://github.com/Kishor-Malakar/sample-project.git
 * [new branch]   feature/update-readme -> feature/update-readme
branch 'feature/update-readme' set up to track 'origin/feature/update-readme'.
PS I:\NexTurn\KishorMalakar-NexTurn-Program\W2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> git checkout main
>>
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
PS I:\NexTurn\KishorMalakar-NexTurn-Program\W2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> git pull origin main
>>
From https://github.com/Kishor-Malakar/sample-project
 * branch      main       -> FETCH_HEAD
Already up to date.
PS I:\NexTurn\KishorMalakar-NexTurn-Program\W2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> git merge feature/update-readme
>>
Updating 6949cdd..2e27b94
Fast-forward
 README.md | Bin 0 -> 178 bytes
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 README.md
PS I:\NexTurn\KishorMalakar-NexTurn-Program\W2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> git push origin main

```

```

create mode 100644 README.md
PS I:\NexTurn\KishorMalakar-NexTurn-Program\W2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> git push origin main
>>
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Kishor-Malakar/sample-project.git
6949cdd..2e27b94  main -> main
PS I:\NexTurn\KishorMalakar-NexTurn-Program\W2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> git branch -d feature/update-readme
>>
Deleted branch feature/update-readme (was 2e27b94).
PS I:\NexTurn\KishorMalakar-NexTurn-Program\W2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> git push origin --delete feature/update-readme
>>
To https://github.com/Kishor-Malakar/sample-project.git
- [deleted]      feature/update-readme
PS I:\NexTurn\KishorMalakar-NexTurn-Program\W2_Git&Agile_Assignments\Assignment_Set_Two\sample-project> 

```

Key Questions Answered

1. Setting Up Version Control and Pushing to GitHub

Use git init to initialize, git remote add to link to GitHub, and git push to push changes.

2. Steps for Branch Creation and Management

Use git checkout -b to create a branch, git add to stage changes, git commit to save them, and git push to upload.

3. Merging Changes into Main

Use git merge after switching to main, then push changes to the remote.

4. **Branch Cleanup Commands**

Use `git branch -d` for local deletion and `git push origin --delete` for remote.