

TASK 1: Local Repository Setup

1. Create a new project folder.
2. Initialize Git in the folder.
3. Create a file named index.txt
4. Add content to the file.
5. Check repository status.
6. Stage all changes
7. Commit the changes with an appropriate message.

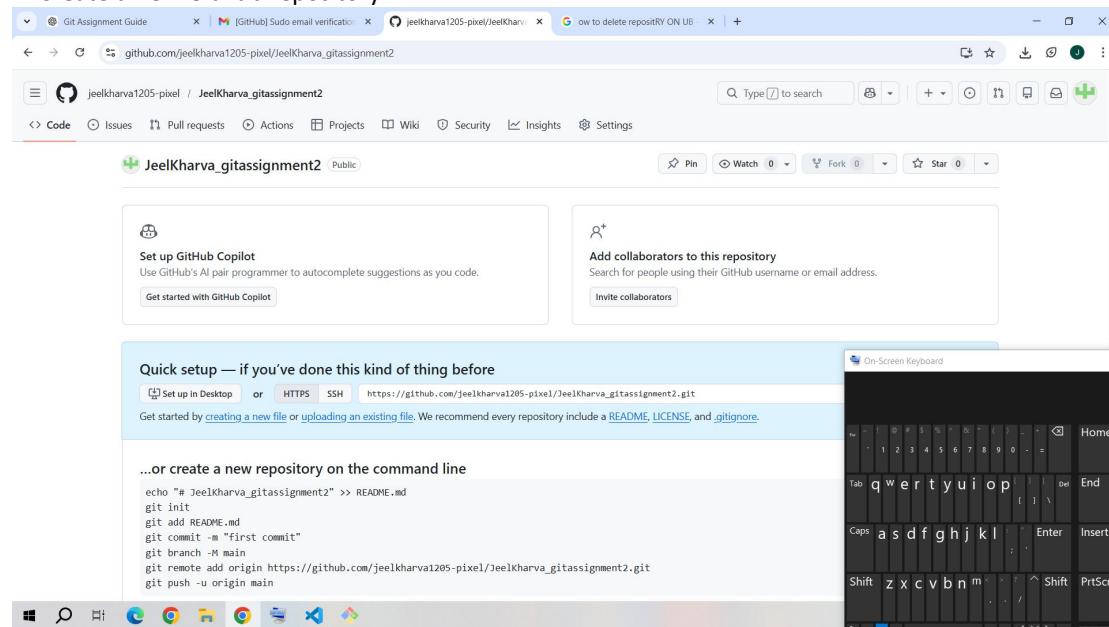
MINGW64/c/Users/Admin/Desktop/gitassignment2

```
$ cd Desktop
$ git init
Initialized empty Git repository in c:/Users/Admin/Desktop/gitassignment2/.git/
$ touch index.txt
$ echo "This is my git assignment 2" > index.txt
$ git add index.txt
$ git commit -m "Initial commit with index.txt file"
[master (root-commit) a22609] Initial commit with index.txt file
 1 file changed, 1 insertion(+)
create mode 100644 index.txt
$
```

On-Screen Keyboard

TASK 2: Remote Repository Creation

1. Create a new GitHub repository.



TASK 3: Connect Local Repository to Remote

1. Add the GitHub repository as remote origin.
2. Verify remote connection.
3. Rename the current branch to main.

```

MINGW64/c/Users/Admin/Desktop/gitassignment2
$ cd gitassignment2
$ git init
Initialized empty Git repository in c:/users/Admin/Desktop/gitassignment2/.git/
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ touch index.txt
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ echo "This is my git assignment 2"
This is my git assignment 2
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ notepeal index.txt
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ git status
On branch master
No commits yet
Untracked files:
  (use "git add <file>..." to include in what will be committed)

nothing added to commit but untracked files present (use "git add" to track)

Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ git add .
Nothing specified, nothing added,
hint: Maybe you wanted to say 'git add -r'?
hint: Disable this message with "git config set advice.addEmptyPathspec false"
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ git add index.txt
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ git commit -m "Initial commit with index.txt file"
[master (root-commit) a22609] Initial commit with index.txt file
 1 file changed, 1 insertion(+)
 create mode 100644 index.txt
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ git remote add origin https://github.com/jeeikharya1205-pixel/Jeeikharya_gitassignment2.git
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ git remote -v
origin https://github.com/jeeikharya1205-pixel/Jeeikharya_gitassignment2.git (fetch)
origin https://github.com/jeeikharya1205-pixel/Jeeikharya_gitassignment2.git (push)
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ git branch -m main
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (main)
$
```

TASK 4: Push Local Changes to Remote

1. Push the local main branch to the remote repository.

```

MINGW64/c/Users/Admin/Desktop/gitassignment2
$ echo "This is my git assignment 2"
This is my git assignment 2
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ notepeal index.txt
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ git status
On branch master
No commits yet
Untracked files:
  (use "git add <file>..." to include in what will be committed)

nothing added to commit but untracked files present (use "git add" to track)

Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ git add .
Nothing specified, nothing added,
hint: Maybe you wanted to say 'git add -r'?
hint: Disable this message with "git config set advice.addEmptyPathspec false"
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ git add index.txt
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ git commit -m "Initial commit with index.txt file"
[master (root-commit) a22609] Initial commit with index.txt file
 1 file changed, 1 insertion(+)
 create mode 100644 index.txt
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ git remote add origin https://github.com/jeeikharya1205-pixel/Jeeikharya_gitassignment2.git
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (master)
$ git push -u origin main
Enumerating objects: 3, done.
Counting objects: 3, done.
Delta compression using up to 25% space.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/jeeikharya1205-pixel/Jeeikharya_gitassignment2.git
 * [new branch] main -> main
Branch main set up to track origin/main.
Admin@DESKTOP-HQQA6EK MINGW64 ~/Desktop/gitassignment2 (main)
$
```

TASK 5: Branch Creation and Work

1. Create a new branch named FirstBranch.
 2. Switch to the newly created branch.
 3. Create a new file named notes.txt.
 4. Add content to the file.
 5. Stage the changes.
 6. Commit the changes.

```
MINGW64:/c/Users/Admin/Desktop/gitassignment2

$ git commit -m "Initial commit with index.txt file"
[master (root-commit) a226009] Initial commit with index.txt file
 1 file changed, 1 insertion(+)
 create mode 100644 index.txt

Admin@DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (master)
$ git remote add origin https://github.com/Jeeikharkava205-pixel/Jeeikharkava_gitassignment2.git
Admin@DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (master)
$ git push -u origin main
origin [https://github.com/Jeeikharkava205-pixel/Jeeikharkava_gitassignment2.git]
origin [https://github.com/Jeeikharkava205-pixel/Jeeikharkava_gitassignment2.git] (push)

Admin@DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (master)
$ git branch -m main
Admin@DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (main)
$ git push -u origin main
Enumerating objects: 3, done.
Counting objects: 3, done.
Writing objects: 100% (3/3), 257 bytes | 128.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Jeeikharkava205-pixel/Jeeikharkava_gitassignment2.git
 ! [new branch] main -> main
branch 'main' set up to track 'origin/main'.

Admin@DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (main)
$ git checkout firstbranch
error: pathspec 'firstbranch' did not match any file(s) known to git
Admin@DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (main)
$ git branch firstbranch
Admin@DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (main)
$ git checkout firstbranch
switched to branch 'firstbranch'

Admin@DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (firstbranch)
$ touch notes.txt
Admin@DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (firstbranch)
$ notepad notes.txt

Admin@DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (firstbranch)
$ 

Admin@DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (firstbranch)
$ 
Admin@DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (firstbranch)
$ git add notes.txt
Admin@DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (firstbranch)
$ git commit -m "Added notes.txt in FirstBranch"
[FirstBranch 0de0b78] Added notes.txt in FirstBranch
 1 file changed, 2 insertions(+)
 create mode 100644 notes.txt
Admin@DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (firstbranch)
$ 


```

TASK 6: Merge Branch into Main

1. Switch back to the main branch.
 2. Merge FirstBranch into main.

```
2. Merge firstbranch into main.

MINGW64:/c/Users/Admin/Desktop/gitassignment2
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
x https://github.com/jeekharva/2020s-pixel/JeeKharva.git
  [new branch]      main -> main
branch 'main' set up to track "origin/main".

Admin@DESKTOP-HQ0A6EK MINGW64 ~/Desktop/gitassignment2 (main)
$ git checkout firstbranch
error: pathspec 'firstbranch' did not match any file(s) known to git

Admin@DESKTOP-HQ0A6EK MINGW64 ~/Desktop/gitassignment2 (main)
$ git branch firstbranch
Admin@DESKTOP-HQ0A6EK MINGW64 ~/Desktop/gitassignment2 (main)
$ git checkout firstbranch
Switched to branch 'firstbranch'

Admin@DESKTOP-HQ0A6EK MINGW64 ~/Desktop/gitassignment2 (Firstbranch)
$ touch notes.txt
Admin@DESKTOP-HQ0A6EK MINGW64 ~/Desktop/gitassignment2 (Firstbranch)
$ notepad notes.txt

Admin@DESKTOP-HQ0A6EK MINGW64 ~/Desktop/gitassignment2 (Firstbranch)
$ 

Admin@DESKTOP-HQ0A6EK MINGW64 ~/Desktop/gitassignment2 (Firstbranch)
$ git add notes.txt
Admin@DESKTOP-HQ0A6EK MINGW64 ~/Desktop/gitassignment2 (Firstbranch)
$ git commit -m "Added notes.txt in FirstBranch"
[Firstbranch 0dedb78] Added notes.txt in FirstBranch
1 file changed, 2 insertions(+)
create mode 100644 notes.txt

Admin@DESKTOP-HQ0A6EK MINGW64 ~/Desktop/gitassignment2 (Firstbranch)
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

Admin@DESKTOP-HQ0A6EK MINGW64 ~/Desktop/gitassignment2 (main)
$ git merge firstbranch
Updating a226609..0dedb78
 2 files changed, 2 insertions(+)
 create mode 100644 notes.txt

Admin@DESKTOP-HQ0A6EK MINGW64 ~/Desktop/gitassignment2 (main)
$ git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)

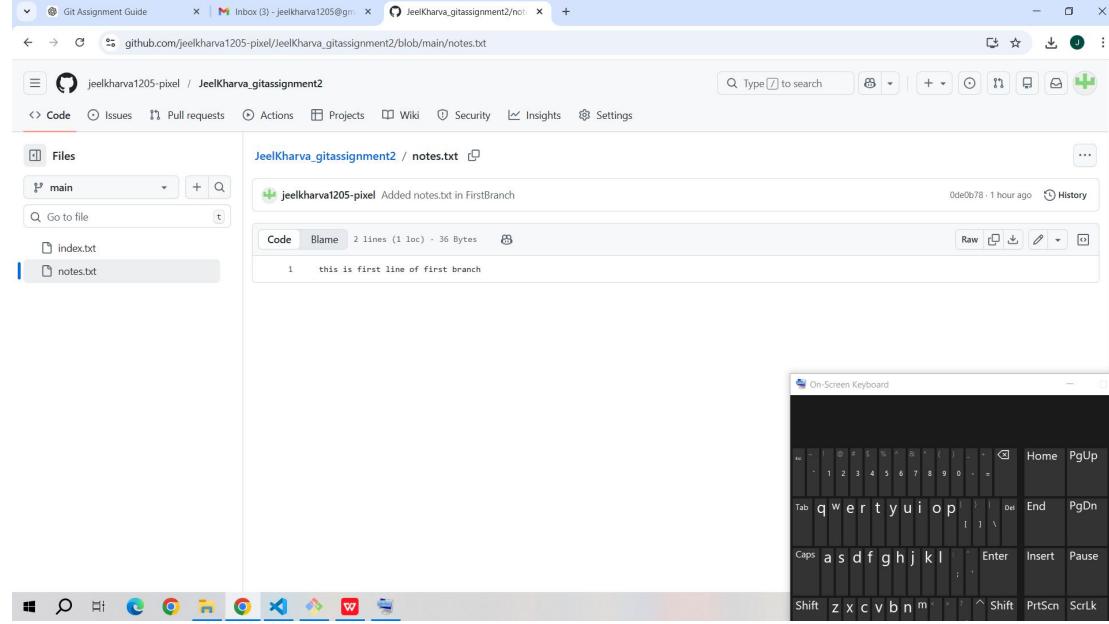
nothing to commit, working tree clean

Admin@DESKTOP-HQ0A6EK MINGW64 ~/Desktop/gitassignment2 (main)
$ |
```

TASK 7 – Final Sync with Remote

1. Push the updated main branch to the remote repository.

```
MINGW64/c/Users/Admin/Desktop/gitassignment2
$ git checkout firstbranch
Switched to branch 'firstbranch'
$ touch notes.txt
$ notepad notes.txt
$ git add notes.txt
$ git commit -m "Added notes.txt in FirstBranch"
[Firstbranch 0de0b78] Added notes.txt in FirstBranch
 1 file changed, 2 insertions(+)
 create mode 100644 notes.txt
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
$ git merge firstbranch
Updating a226609..0de0b78
Fast-forward
  main           2 <-
   1 file changed, 2 insertions(+)
  create mode 100644 notes.txt
$ git status
On branch main
You have committed changes ahead of 'origin/main'.
  (use "git push" to publish your local commits)
nothing to commit, working tree clean
$ git status
On branch main
You have committed changes ahead of 'origin/main'.
  (use "git push" to publish your local commits)
nothing to commit, working tree clean
$ git add .
Counting objects: 4, done.
Delta compression using up to 2 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 324 bytes | 324.00 KiB/s, done.
Total 3 (delta 0), pack-reused 0 (from 0)
To https://github.com/jeelekharva1205-pixel/Jeelekharva_gitassignment2.git
 a226609..0de0b78  main -> main
$
```



TASK 8 – Simple Pull

1. Navigate to the correct local Git repository folder.
2. Verify the current branch is main.
3. Check the working tree status.
4. Pull the latest changes from the remote repository.
5. Verify that the pull is successful.

```

MINGW64/c/Users/Admin/Desktop/gitassignment2
$ git add index.txt
Added notes.txt to the index
(Firstbranch 0de0b78) Added notes.txt in Firstbranch
1 file changed, 2 insertions(+)
create mode 100644 notes.txt

Admin@DESKTOP-HQXAGER MINGW64 ~/Desktop/gitassignment2 (Firstbranch)
$ git status
On branch Firstbranch
Switched to branch "main"
Your branch is up to date with "origin/main".
nothing to commit, working tree clean

Admin@DESKTOP-HQXAGER MINGW64 ~/Desktop/gitassignment2 (main)
$ git merge firstbranch
Updating a226609..0de0b78
Fast-forward
 notes.txt | 2 ++
 1 file changed, 2 insertions(+)
 create mode 100644 notes.txt

Admin@DESKTOP-HQXAGER MINGW64 ~/Desktop/gitassignment2 (main)
$ git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean

Admin@DESKTOP-HQXAGER MINGW64 ~/Desktop/gitassignment2 (main)
$ git push
Enumerating objects: 4, done.
Counting objects: 4, done.
Delta compression using up to 4 threads
Compressing objects: 100% (3/3) done.
Writing objects: 100% (3/3) 324 bytes | 324.00 KiB/s
  from 0
To https://github.com/jeelekharva1205-pixel/Jeelekharva.git
 a226609..0de0b78  main -> main

Admin@DESKTOP-HQXAGER MINGW64 ~/Desktop/gitassignment2 (main)
$ git branch
* main
  firstbranch

Admin@DESKTOP-HQXAGER MINGW64 ~/Desktop/gitassignment2 (main)
$ git pull origin main
From https://github.com/jeelekharva1205-pixel/Jeelekharva.git
 * branch      main      -> FETCH_HEAD
 Already up to date.

Admin@DESKTOP-HQXAGER MINGW64 ~/Desktop/gitassignment2 (main)
$ 

```

TASK 9 – Push and Pull with Conflict Resolution

1. Navigate to the correct local Git repository folder.
2. Ensure you are on the main branch.
3. Change the content of the index.txt file and save the changes
4. Navigate to the correct remote Git repository folder.
5. Ensure you are on the main branch.
6. Change the content of the index.txt file and save the changes
7. Attempt to push local changes to the remote repository.
8. Observe the push rejection error.
9. Pull remote changes into the local branch.
10. Resolve merge conflict if it occurs.
11. Commit the merge resolution.
12. Push the updated branch to the remote repository.

The screenshot shows a browser window displaying a GitHub repository page for 'jeelekharva1205-pixel/Jeelekharva.gitassignment2'. The repository has one file, 'index.txt', which contains the text 'This is my git assignment2.' and 'This is updated at remote'. The browser interface includes tabs for 'Git Assignment Guide', 'Inbox (3)', and the repository itself. The GitHub page includes standard navigation links like 'Code', 'Issues', 'Pull requests', 'Actions', 'Projects', 'Wiki', 'Security', 'Insights', and 'Settings'.

```
MINGW64/C/Users/Admin/Desktop/gitassignment2
$ git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 2 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3) 324 bytes | 324.00 KiB/s, done.
Total 3 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/jeelkharva1205-pixel/jeelkharva.git
 a226609..0ded0b7 main -> main

Administrator:DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

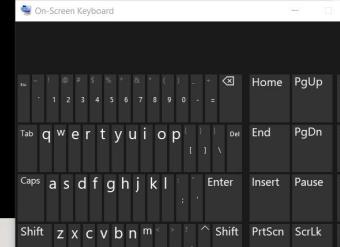
Administrator:DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (main)
$ git branch
* main

Administrator:DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (main)
* main
From https://github.com/jeelkharva1205-pixel/jeelkharva.git
 * branch      main       -> FETCH_HEAD
Already up to date.

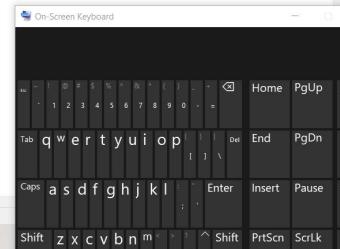
Administrator:DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (main)
$ notepad index.txt
Administrator:DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (main)
$ git add index.txt
Administrator:DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (main)
$ git commit -m "updated index.txt at locally"
error: pathspec 'index.txt' did not match any file(s) known to git
git: 'commit' is a builtin command that was found in both 'git' and 'git-commit'.
Administrator:DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (main)
$ git commit -m "updated index.txt locally"
[main 0fdb9e0] updated index.txt locally
 1 file changed, 2 insertions(+), 1 deletion(-)

Administrator:DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (main)
$ git push
! [rejected]   main > main (fetch first)
error: failed to push some refs to 'https://github.com/jeelkharva1205-pixel/jeelkharva.git'
hint: Updates were rejected because the remote contains work that you do not
hint: have locally. This usually means your local repository has
hint: changes that are not yet pushed. If you want to integrate the remote changes, use
hint: 'git pull' before pushing again.
hint: See the 'Note about Fast-forwards' in 'git push --help' for details.

Administrator:DESKTOP-HQJAGEK MINGW64 ~/Desktop/gitassignment2 (main)
$
```



```
index - Notepad
File Edit Format View Help
This is my git assignment2.
<<<<< HEAD
this is updated locally.
=====
This is updated at remote
>>>> 6b9a83b26ce2f9fb92c73f3501685be1550b348c
$
```



```

MINGW64/c/Users/Admin/Desktop/gitassignment2
Your branch is up to date with 'origin/main'.
nothing to commit, working tree clean
Administrator@DESKTOP-HQQA9EKG MINGW64 ~/Desktop/gitassignment2 (main)
$ git branch
* main
Administrator@DESKTOP-HQQA9EKG MINGW64 ~/Desktop/gitassignment2 (main)
$ git pull origin main
From https://github.com/jeelekharva1205-pixel/jeelekharva_gitassignment2
 * branch      main      -> FETCH_HEAD
Already up to date.

Administrator@DESKTOP-HQQA9EKG MINGW64 ~/Desktop/gitassignment2 (main)
$ notepad index.txt
Administrator@DESKTOP-HQQA9EKG MINGW64 ~/Desktop/gitassignment2 (main)
$ git add index.txt
Administrator@DESKTOP-HQQA9EKG MINGW64 ~/Desktop/gitassignment2 (main)
$ git commit -m "updated index.txt at locally"
error: pathspec 'at' did not match any file(s) known to git
error: pathspec 'locally' did not match any file(s) known to git
Administrator@DESKTOP-HQQA9EKG MINGW64 ~/Desktop/gitassignment2 (main)
$ git push
To https://github.com/jeelekharva1205-pixel/jeelekharva_gitassignment2.git
 ! [rejected]   main          (fetch first)
error: failed to push some refs to 'https://github.com/jeelekharva1205-pixel/jeelekharva_gitassignment2.git'
hint: Updates were rejected because the remote contains work that you do not
hint: have locally.
hint: If you want to integrate the remote changes, use
hint: 'git pull' before pushing again.
hint: See the 'Note about fast-forward' in 'git push --help' for details.

Administrator@DESKTOP-HQQA9EKG MINGW64 ~/Desktop/gitassignment2 (main|MERGING)
$ 

```

TASK 10 - Clone an Existing Repository

1. Copy the GitHub repository URL.
2. Navigate to a parent directory (not inside another repo) in local.
3. Clone the remote repository.
4. Navigate into the cloned folder.
5. Verify the current branch.
6. Verify the remote connection.

```

Administrator@DESKTOP-HQQA9EKG MINGW64 ~/Desktop/gitassignment2 (main)
$ git pull origin main
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (3/3), 97 bytes | 24.00 KiB/s, done.
From https://github.com/jeelekharva1205-pixel/jeelekharva_gitassignment2
 * branch      main      -> FETCH_HEAD
 * branch      main      -> origin/main
Auto-merging index.txt
CONFLICT (content): Merge conflict in index.txt
Automatic merge failed; fix conflicts and then commit the result.

Administrator@DESKTOP-HQQA9EKG MINGW64 ~/Desktop/gitassignment2 (main|MERGING)
$ 

```