

NAME : KIRTHIVASHAN V

REG NO : 73772114158

DEPARTMENT: COMPUTER SCIENCE AND ENGINEERING

COLLEGE : K S RANGASAMY COLLEGE OF TECHNOLOGY

ASSIGNMENT(GIT)

Exercise 2

Main Task

1. Run the status command. Notice how it tells you what branch you are in.

```
C:\Users\V.kirthivashan>d:
D:\>cd Localrepo
D:\Localrepo>git init
Initialized empty Git repository in D:/Localrepo/.git/
D:\Localrepo>git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        t1.txt
        t2.txt

nothing added to commit but untracked files present (use "git add" to track)
D:\Localrepo>git add .
D:\Localrepo>git commit -m "committed"
[master (root-commit) 75075fb] committed
 2 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 t1.txt
 create mode 100644 t2.txt
D:\Localrepo>git branch
* master
```

2. Use the branch command to create a new branch.

```
D:\Localrepo>git branch mybranch

D:\Localrepo>git branch
* master
  mybranch
```

3. Use the checkout command to switch to it.

```
D:\Localrepo>git checkout mybranch
Switched to branch 'mybranch'
```

4. Make a couple of commits in the branch – perhaps adding a new file and/or editing existing ones.

```
D:\Localrepo>git status
On branch mybranch
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   t1.txt
        modified:   t2.txt

no changes added to commit (use "git add" and/or "git commit -a")

D:\Localrepo>git add .

D:\Localrepo>git commit -m "updated and committed"
[mybranch 43fb54e] updated and committed
 2 files changed, 2 insertions(+)
```

5. Use the log command to see the latest commits. The two you just made should be at the top of the list.

```
D:\Localrepo>git log
commit 43fb54efaa72db34542becdfa23123c61ae9931b (HEAD -> mybranch)
Author: kirthivashan <vkvashan24@gmail.com>
Date:   Fri Jul 19 20:54:02 2024 +0530

    updated and committed

commit 75075fbd7f7eea4c2bcb539620a634c8c9bca2bf (master)
Author: kirthivashan <vkvashan24@gmail.com>
Date:   Fri Jul 19 20:52:12 2024 +0530

    committed
```

6. Use the checkout command to switch back to the master branch. Run log again. Notice your commits don't show up now. Check the files also – they should have their original contents.

```
D:\Localrepo>git checkout master
Switched to branch 'master'

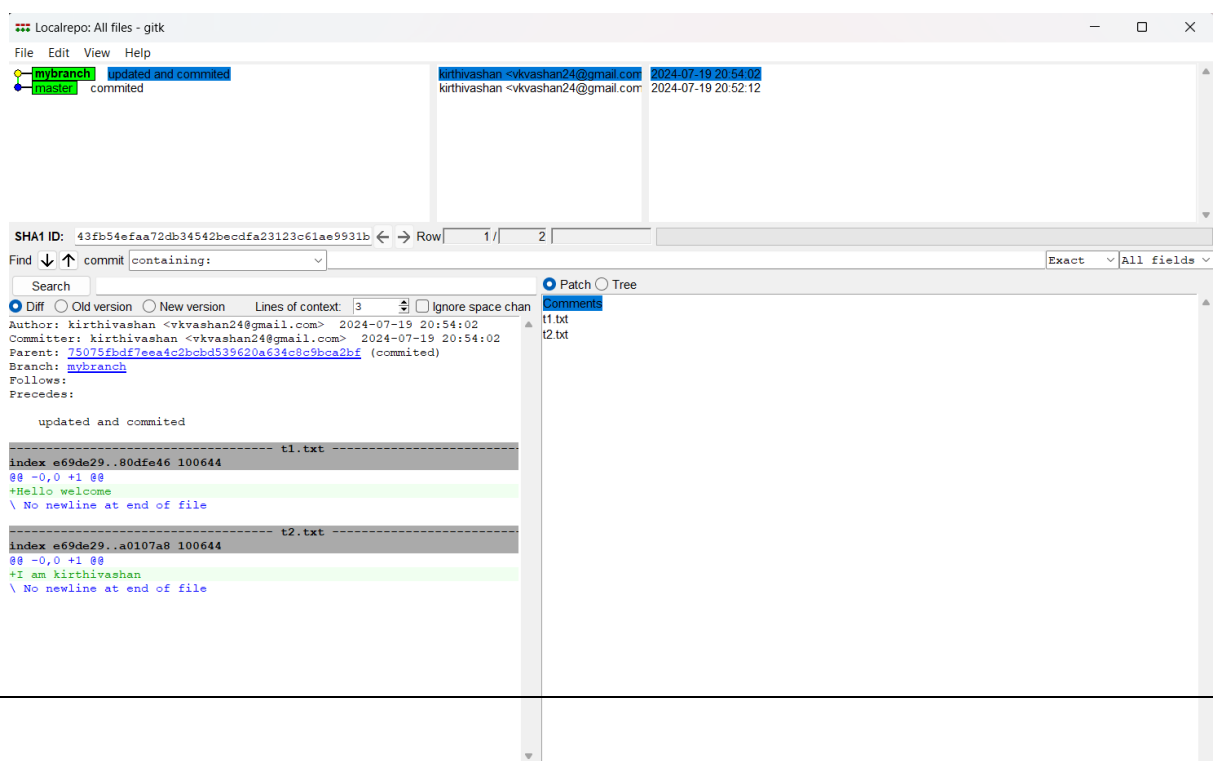
D:\Localrepo>git log
commit 75075fbd77eea4c2bcbd539620a634c8c9bca2bf (HEAD -> master)
Author: kirthivashan <vkvashan24@gmail.com>
Date:   Fri Jul 19 20:52:12 2024 +0530

    committed
```

7. Use the checkout command to switch back to your branch. Use gitk to take a look at the commit graph; notice it's linear.

```
D:\Localrepo>git checkout mybranch
Switched to branch 'mybranch'

D:\Localrepo>gitk
```



8. Now checkout the master branch again. Use the merge command to merge your branch in to it. Look for information about it having been a fast-forward merge. Look at git log, and see that there is no merge commit. Take a look in gitk and see how the DAG is linear.

```
D:\Localrepo>git checkout master
Switched to branch 'master'

D:\Localrepo>git merge mybranch
Updating 75075fb..43fb54e
Fast-forward
 t1.txt | 1 +
 t2.txt | 1 +
 2 files changed, 2 insertions(+)
```

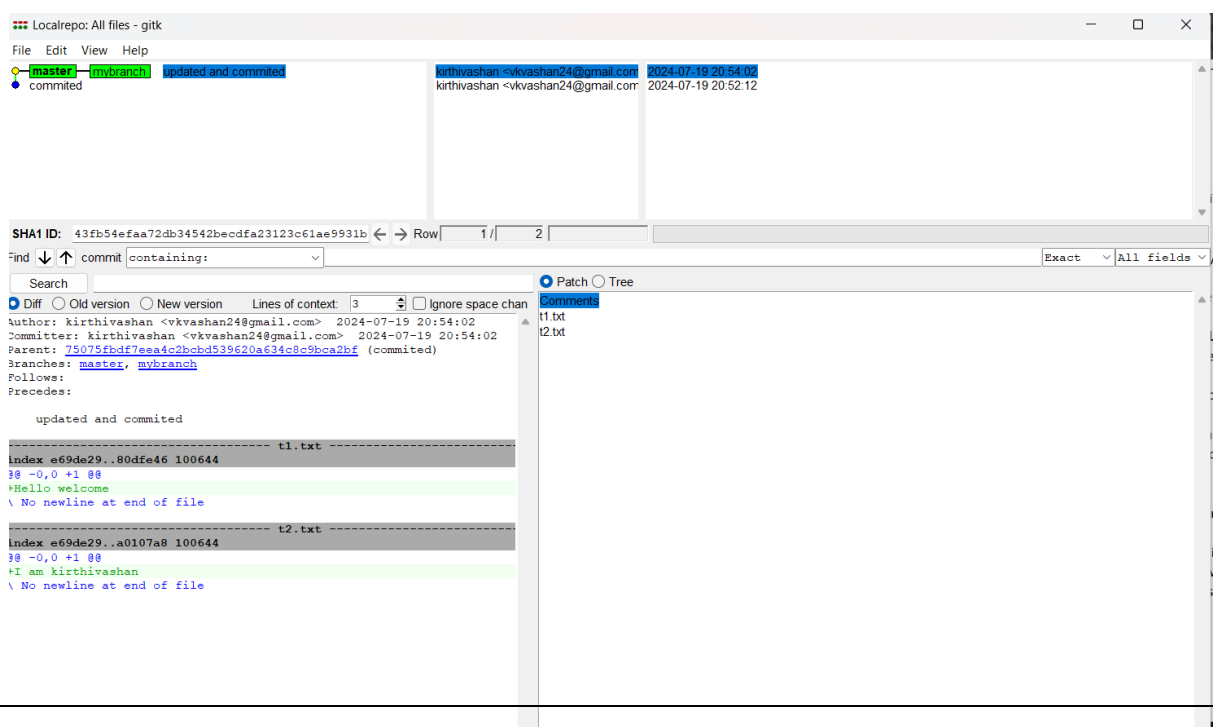
```
D:\Localrepo>git log
commit 43fb54efaa72db34542becdfa23123c61ae9931b (HEAD -> master, mybranch)
Author: kirthivashan <vkvashan24@gmail.com>
Date:   Fri Jul 19 20:54:02 2024 +0530

    updated and committed

commit 75075fbdf7eea4c2bcbd539620a634c8c9bca2bf
Author: kirthivashan <vkvashan24@gmail.com>
Date:   Fri Jul 19 20:52:12 2024 +0530

    committed

D:\Localrepo>gitk
```



9. Switch back to your branch. Make a couple more commits.

```
D:\Localrepo>git checkout mybranch
Switched to branch 'mybranch'

D:\Localrepo>git add .

D:\Localrepo>git commit -m "mycommit3"
[mybranch fd486ed] mycommit3
2 files changed, 4 insertions(+), 2 deletions(-)
```

10. Switch back to master. Make a commit there, which should edit a different file from the ones you touched in your branch – to be sure there is no conflict.

```
D:\Localrepo>git checkout master
Switched to branch 'master'

D:\Localrepo>git merge mybranch
Updating 43fb54e..fd486ed
Fast-forward
 t1.txt | 3 ++-
 t2.txt | 3 ++-
2 files changed, 4 insertions(+), 2 deletions(-)
```

11. Now merge your branch again. (Aside: you don't need to do anything to inform Git that you only want to merge things added since your previous merge. Due to the way Git works, that kind of issue simply does not come up, unlike in early versions of Subversion.)

```
D:\Localrepo>git log
commit fd486ed387db042a45a7598cbba00200d587e3df (HEAD -> master, mybranch)
Author: kirthivashan <vkvasan24@gmail.com>
Date: Fri Jul 19 21:00:31 2024 +0530

    mycommit3

commit 43fb54efaa72db34542becdfa23123c61ae9931b
Author: kirthivashan <vkvasan24@gmail.com>
Date: Fri Jul 19 20:54:02 2024 +0530

    updated and committed

commit 75075fbdf7eea4c2bcbd539620a634c8c9bca2bf
Author: kirthivashan <vkvasan24@gmail.com>
Date: Fri Jul 19 20:52:12 2024 +0530

    committed
```

```

D:\Localrepo>git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        t3.txt

nothing added to commit but untracked files present (use "git add" to track)
D:\Localrepo>git add .

D:\Localrepo>git commit -m "mycommits"
[master b372dee] mycommits
 1 file changed, 1 insertion(+)
 create mode 100644 t3.txt

D:\Localrepo>git merge mybranch
Already up to date.

```

12. Look at git log. Notice that there is a merge commit. Also look in gitk. Notice the DAG now shows how things forked, and then were joined up again by a merge commit.

```

D:\Localrepo>git log
commit b372dee5fd07eca5a51c856b721210147f11d00a (HEAD -> master)
Author: kirthivashan <vkvasan24@gmail.com>
Date:   Fri Jul 19 21:05:42 2024 +0530

    mycommits

commit fd486ed387db042a45a7598cbba00200d587e3df (mybranch)
Author: kirthivashan <vkvasan24@gmail.com>
Date:   Fri Jul 19 21:00:31 2024 +0530

    mycommit3

commit 43fb54efaa72db34542becdfa23123c61ae9931b
Author: kirthivashan <vkvasan24@gmail.com>
Date:   Fri Jul 19 20:54:02 2024 +0530

    updated and committed

commit 75075fbd77eea4c2bcbd539620a634c8c9bca2bf
Author: kirthivashan <vkvasan24@gmail.com>
Date:   Fri Jul 19 20:52:12 2024 +0530

    committed

D:\Localrepo>gitk

```

Localrepo: All files - gitk

File Edit View Help

master mycommit3

mycommit3

updated and committed

committed

kirthivashan <vkvaashan24@gmail.com>

kirthivashan <vkvaashan24@gmail.com>

kirthivashan <vkvaashan24@gmail.com>

kirthivashan <vkvaashan24@gmail.com>

2024-07-19 21:05:42

2024-07-19 21:00:31

2024-07-19 20:54:02

2024-07-19 20:52:12

SHA1 ID: b372dee5fd07eca5a51c856b721210147f11d00a

Row 1 / 4

Find commit containing: Exact All fields

Search

Diff Old version New version

Lines of context: 3 Ignore space chan

Patch Tree

Comments

Author: kirthivashan <vkvaashan24@gmail.com> 2024-07-19 21:05:42
Committer: kirthivashan <vkvaashan24@gmail.com> 2024-07-19 21:05:42
Parent: fd486ed387db042a45a7598cbbba00200d587e3ddf (mycommit3)
Branch: master
Follows:
Precedes:

mycommit3

----- t3.txt
new file mode 100644
index 0000000..81d97db
@@ -0,0 +1 @@
+show are you
\ No newline at end of file

t3.txt

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