Hands-on Lab: Using Git from Your Own Desktop

Estimated time needed: : 30 mins

Objectives

After completing this lab, you will be able to:

1. Clone your GitHub repository locally.
2. Make changes to the cloned files.
3. Add a new file.
4. Check the status.
5. Commit changes.
6. Generate Personal Access Token.
7. Push the changes back to GitHub.

Pre-requisites

GitHub account, with a project in it, as illustrated in this lab.

GitBash or Git installed on your local desktop, as in this lab.

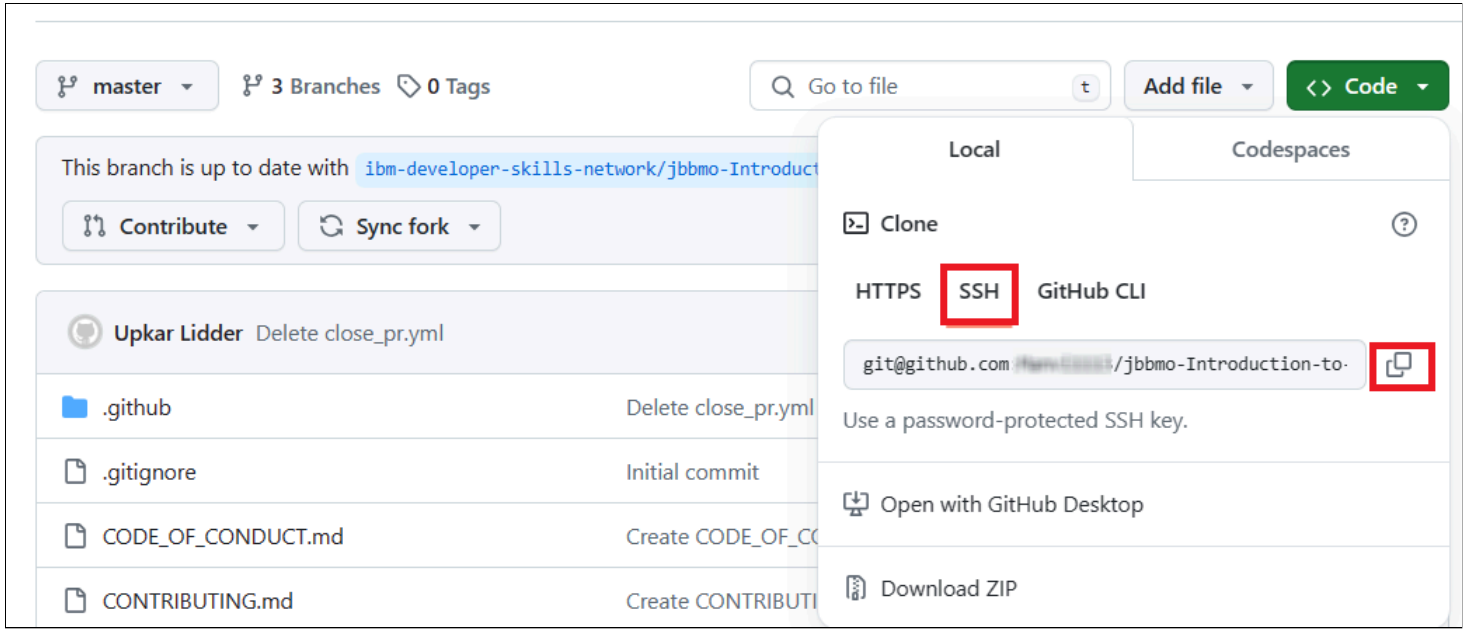
Create SSH keys, as in this lab

Add SSH Key to GitHub, as in this lab

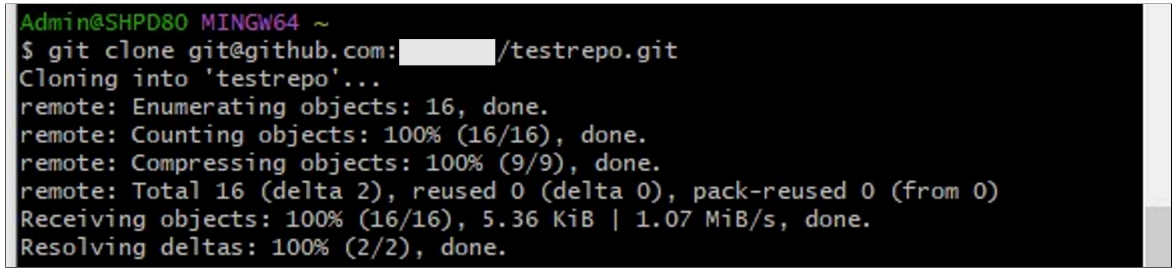
Exercise 1: Clone a repo

To clone a repo, you need the SSH URL of the repo.

1. To get the SSH URL, login into GitHub.
2. Navigate to the repo you wish to clone.
3. Click the 'Code' button.
4. Click the 'clipboard icon' to copy the SSH URL. Paste this URL where you can access it later.



5. On your desktop, open a terminal or GitBash, if you are using Windows OS.
6. Navigate to a directory where you wish to clone the repo.
7. Run the command `git clone <your repo ssh url>`
8. This will clone the repo on GitHub into your current directory.
9. You can see all the downloaded files under a directory named as your repo name.

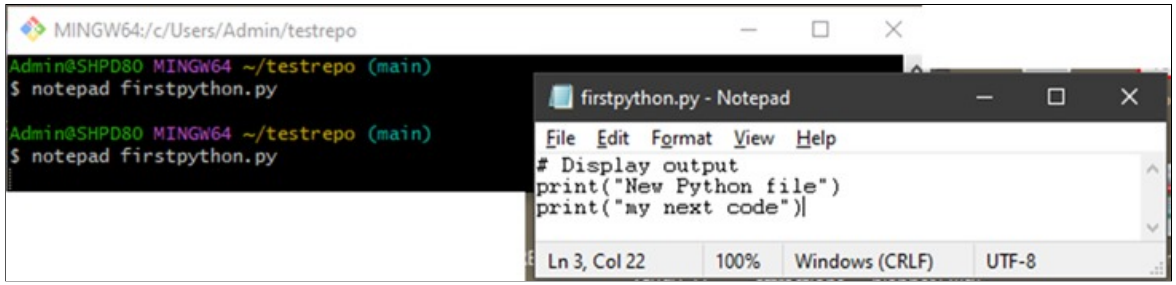


10. To ensure that every file was downloaded, navigate to the cloned directory and list the files.

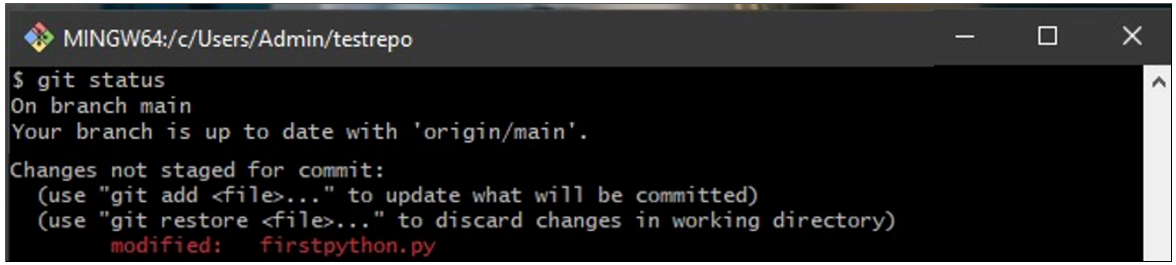
```
Admin@SHPD80 MINGW64 ~
$ cd testrepo

Admin@SHPD80 MINGW64 ~/testrepo (main)
$ ls
README.md  childpython.py  firstpython.py

Admin@SHPD80 MINGW64 ~/testrepo (main)
```

Exercise 2: Make changes to cloned files

1. Using your favourite editor, open any one of the file inside repo and make changes to the file and save it.

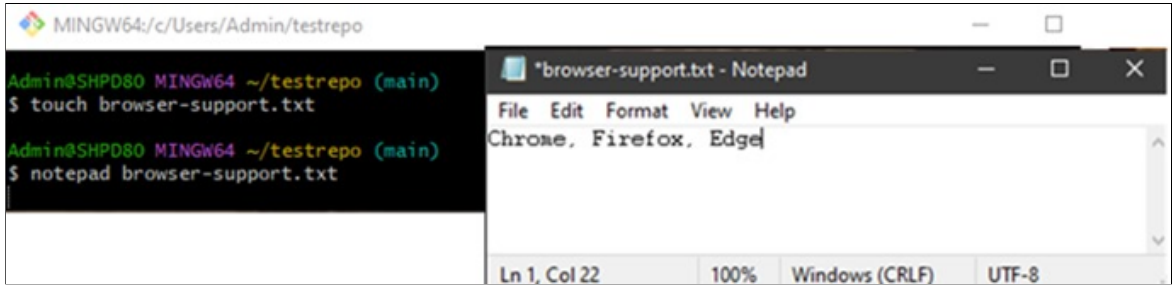


2. Type the command `git status` to show all the modified files.



Exercise 3: Add a new file to the local repo

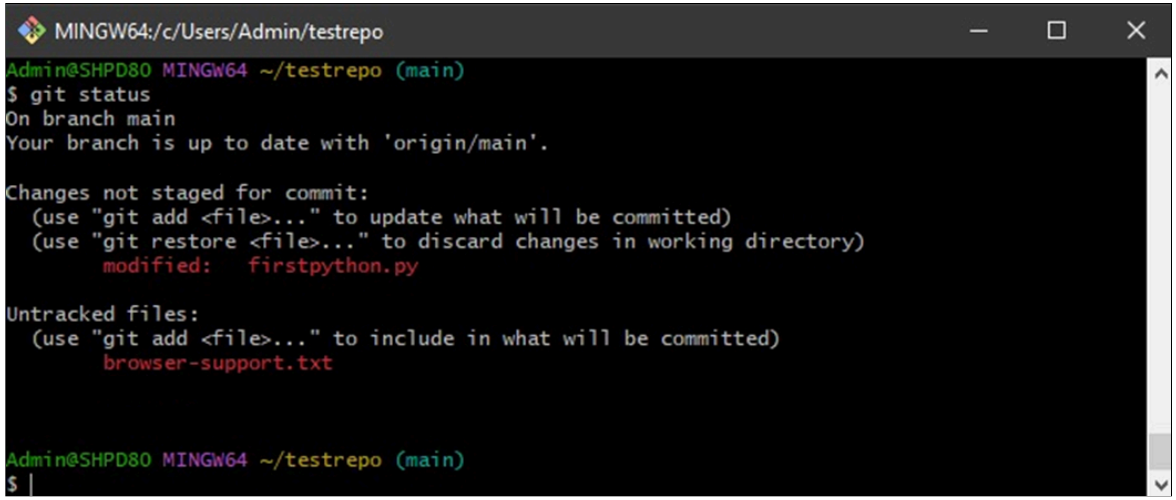
1. Let us add a new file to the local repo. Using a text editor, create a new file **browser-support.txt**.
2. Add "Chrome, Firefox, Edge" into the file.



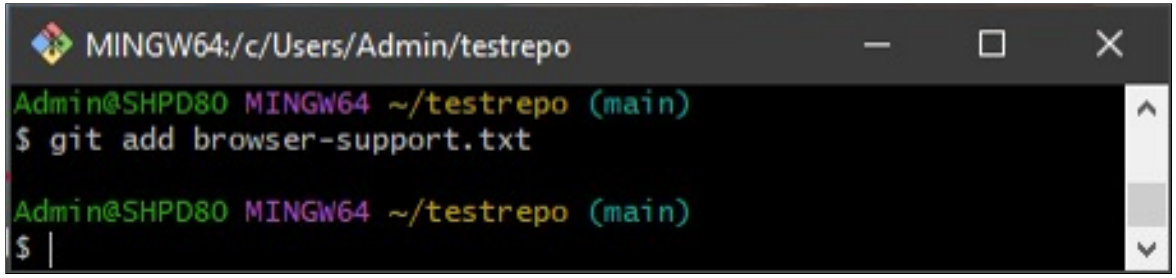
4. Save the file.

Exercise 4: Check the status

1. Run `git status` to see info on the modified files.

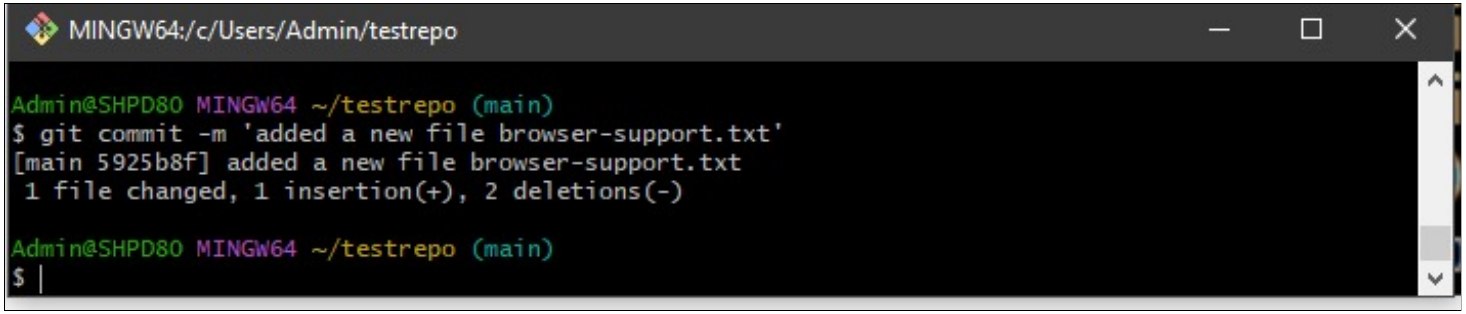


2. Add the file to the repository for committing using `git add browser-support.txt`.



Exercise 5: Commit and push the changes

1. Git commit will record all the changes into the local stating area. To commit the changes you have made, run `git commit -m 'added a new file browser-support.txt'`.



Now all the changes you have made this far, get committed locally.

2. The git `push` command will enable you to sync all the changes made locally to the GitHub web repository. Run the `git push` command in GitBash terminal.

```
(base) sr@rameshs-air simple_interest_calculator % git push
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 304 bytes | 304.00 KiB/s, done.
Total 3 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To github.com:rsannareddy/simple_interest_calculator.git
   2858800..bcf175b  master -> master
(base) sr@rameshs-air simple_interest_calculator %
```

You can now visit the GitHub repository page and check to ensure that the revised and newly added files are in place.

Summary

In this lab, you have learned how to clone a GitHub repository, make changes to it, commit the changes locally, and push it back to GitHub.

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