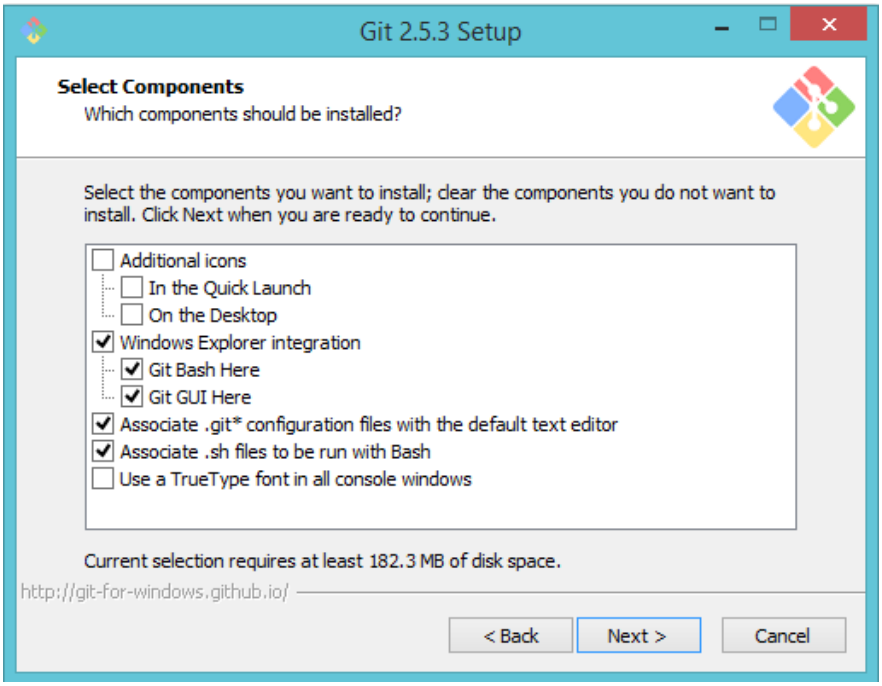
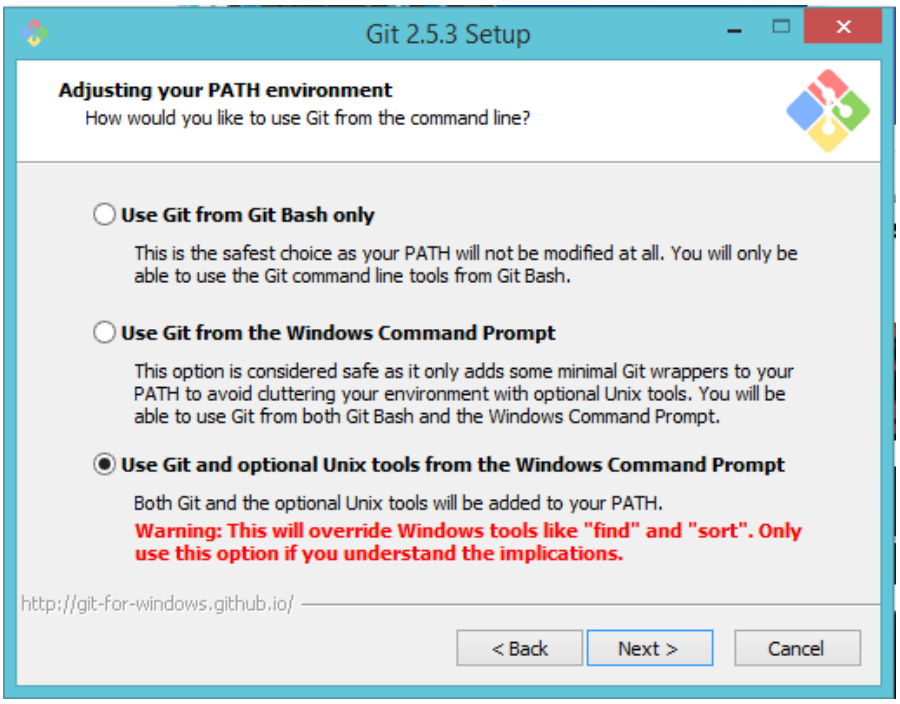
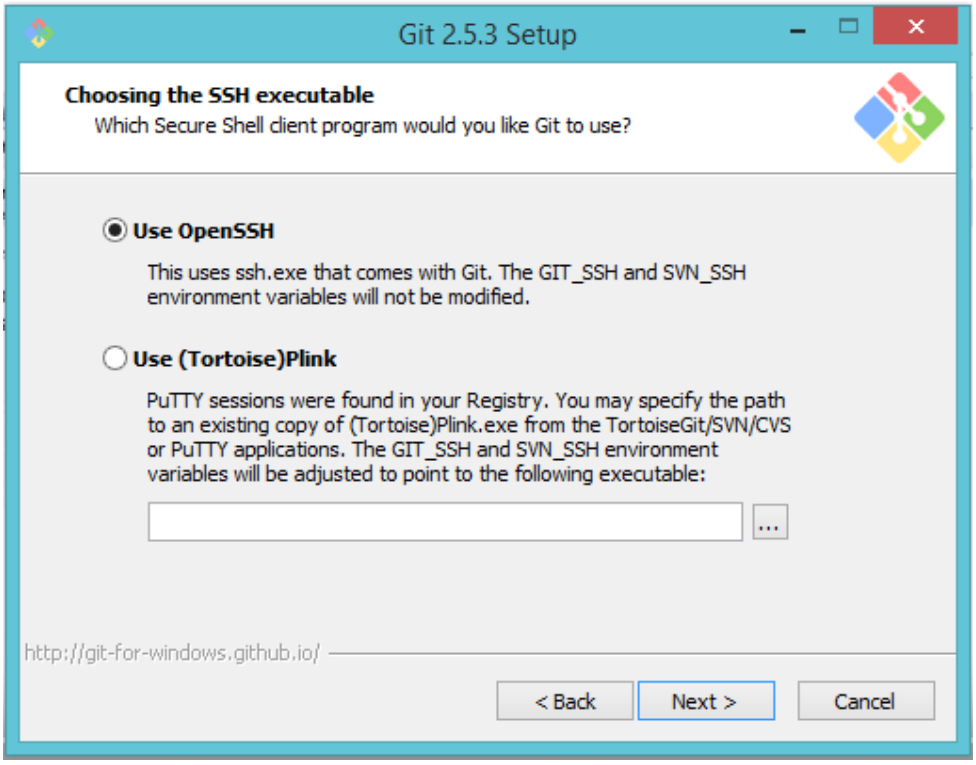
Git Help Guide

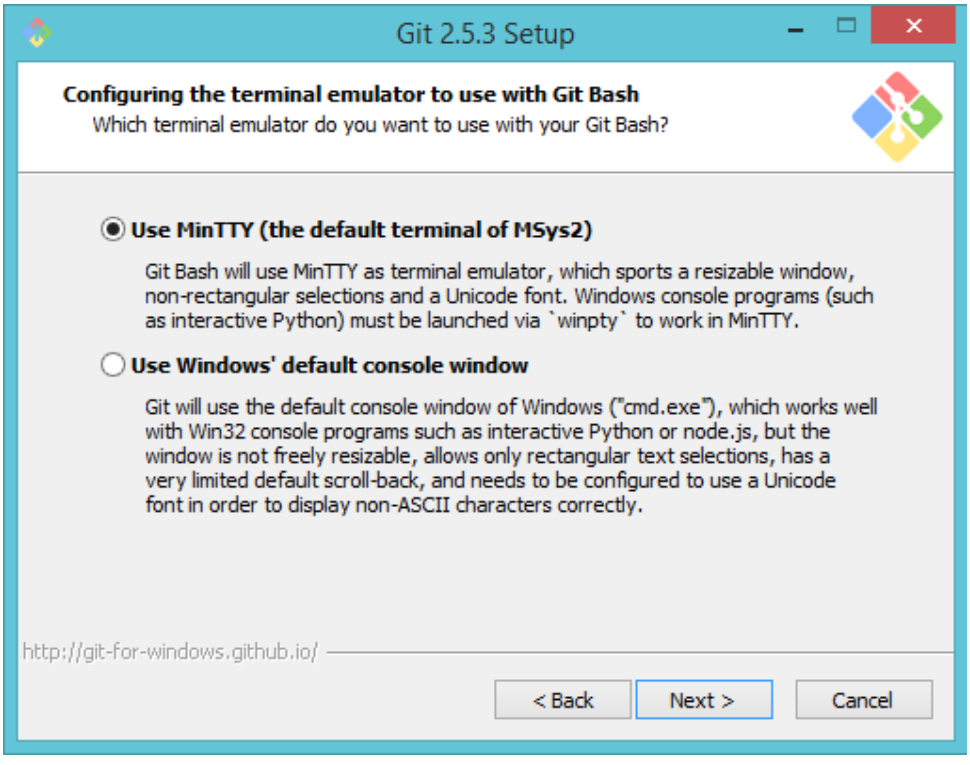
1. Go to http://git-scm.com/download and download git.

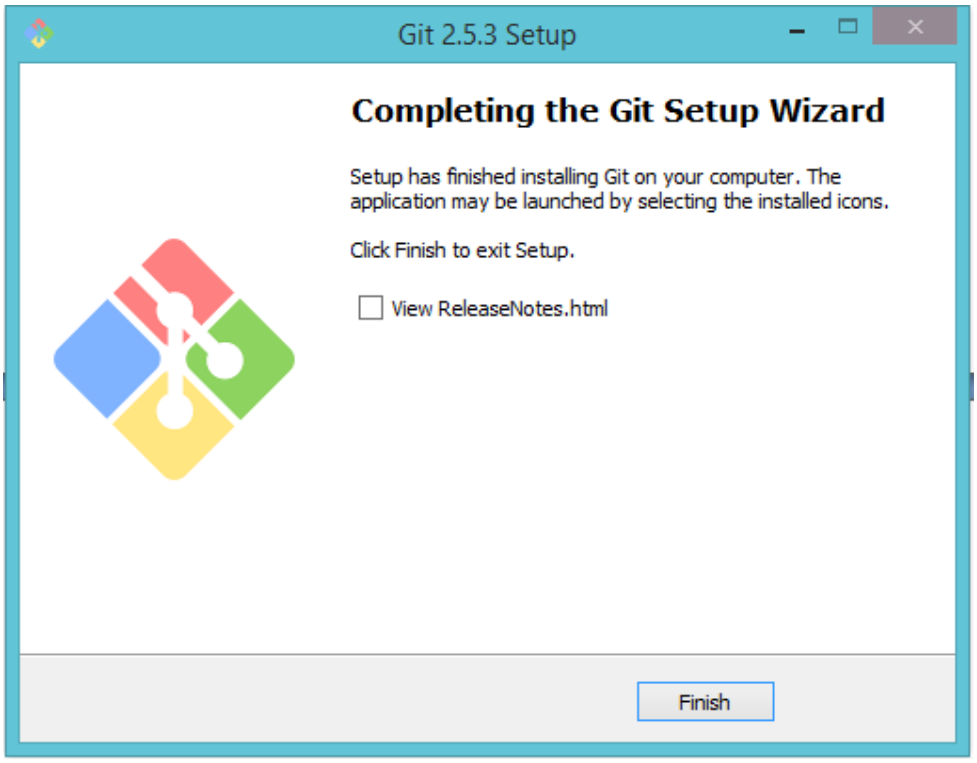
2. Install git by clicking 'Next' and then follow the below screenshots (For any other screen, just select the default option).



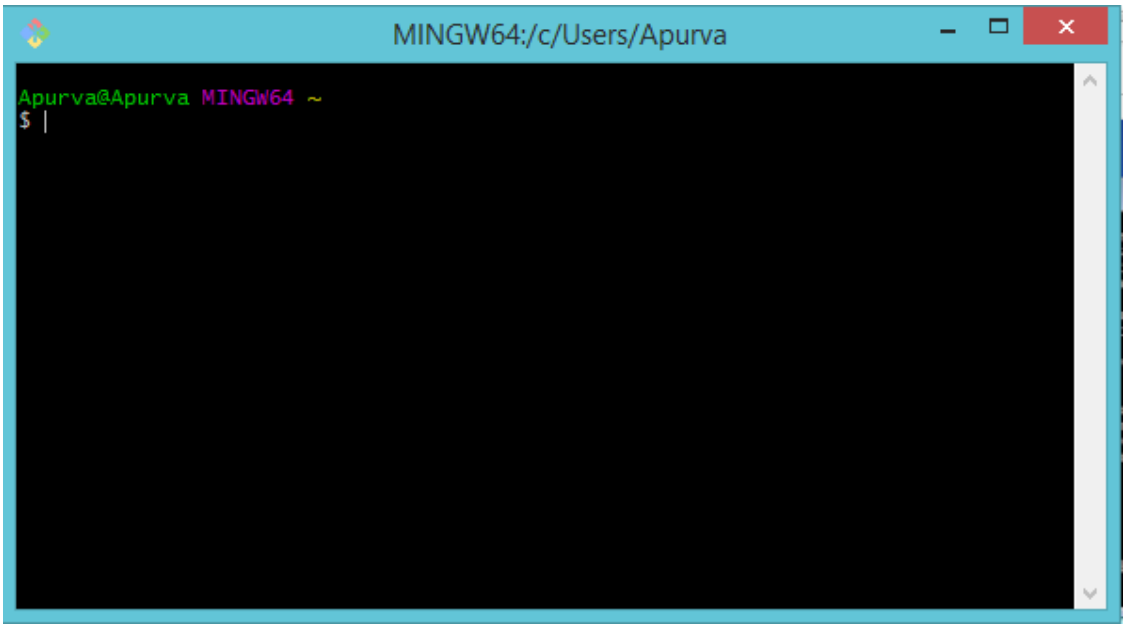



Git 2.5.3 Setup
Choosing the SSH executable
Which Secure Shell client program would you like Git to use?
Use OpenSSH
This uses ssh.exe that comes with Git. The GIT_SSH and SVN_SSH environment variables will not be modified.
Use (Tortoise)Plink
PuTTY sessions were found in your Registry. You may specify the path to an existing copy of (Tortoise)Plink.exe from the TortoiseGit/SVN/CVS or PuTTY applications. The GIT_SSH and SVN_SSH environment variables will be adjusted to point to the following executable:
...
http://git-for-windows.github.io/
< Back
Next >
Cancel

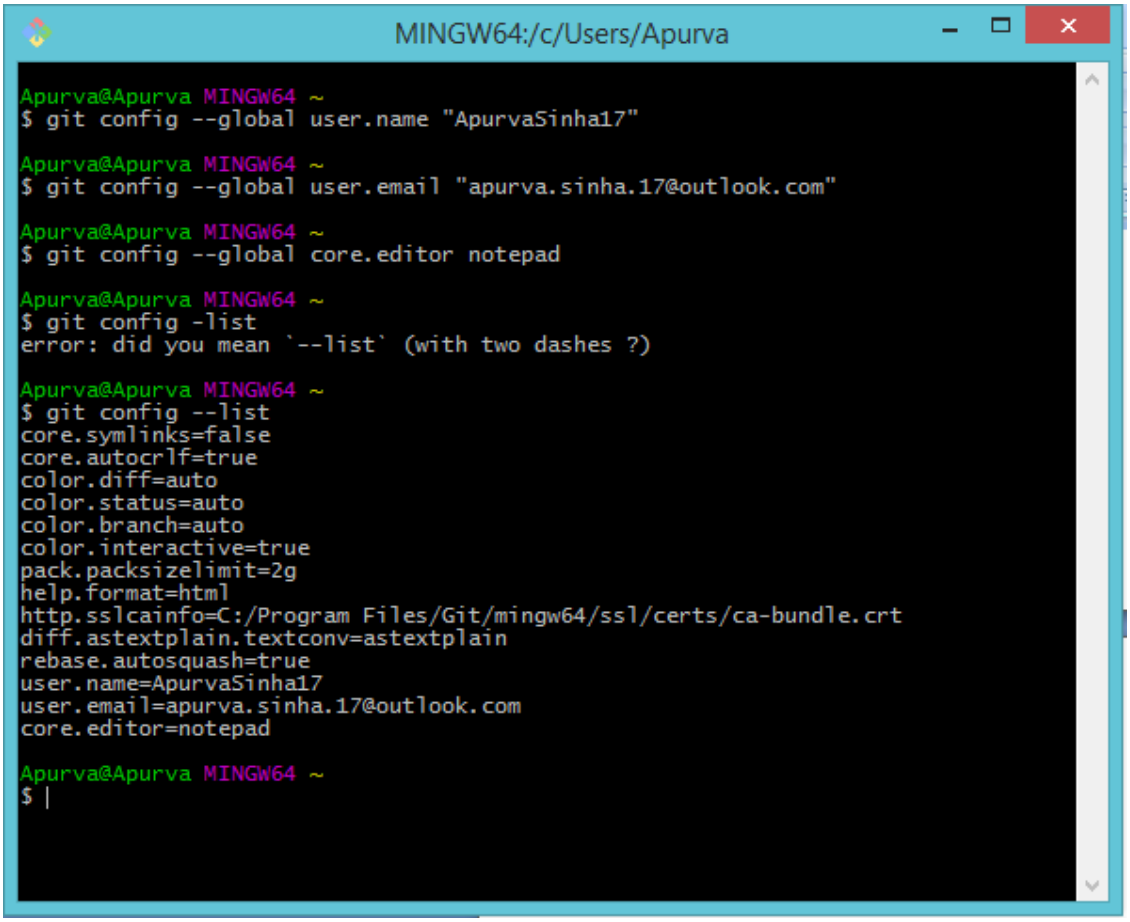

Git 2.5.3 Setup
Configuring the terminal emulator to use with Git Bash
Which terminal emulator do you want to use with your Git Bash?
Use MinTTY (the default terminal of MSys2)
Git Bash will use MinTTY as terminal emulator, which sports a resizable window, non-rectangular selections and a Unicode font. Windows console programs (such as interactive Python) must be launched via `winpty` to work in MinTTY.
Use Windows' default console window
Git will use the default console window of Windows ("cmd.exe"), which works well with Win32 console programs such as interactive Python or node.js, but the window is not freely resizable, allows only rectangular text selections, has a very limited default scroll-back, and needs to be configured to use a Unicode font in order to display non-ASCII characters correctly.
http://git-for-windows.github.io/
< Back
Next >
Cancel



3. Go to Windows search and search ‘Git Bash’. Open ‘Git Bash’.



4. Execute the following commands. Give your user name and email address.



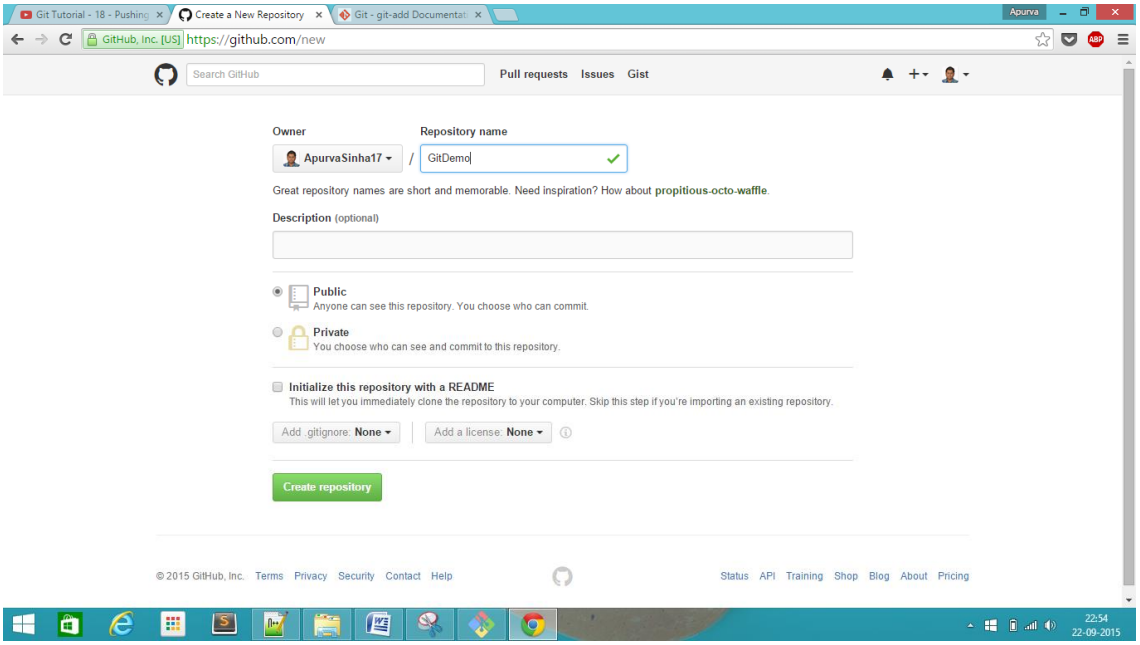
5. Create (or use an existing) folder that you want to associate with git. Create a file in that folder and write some text. Save it.

6. Go to that folder through 'Git Bash' (Windows users: Remember to use **/** instead of **** in the folder path)

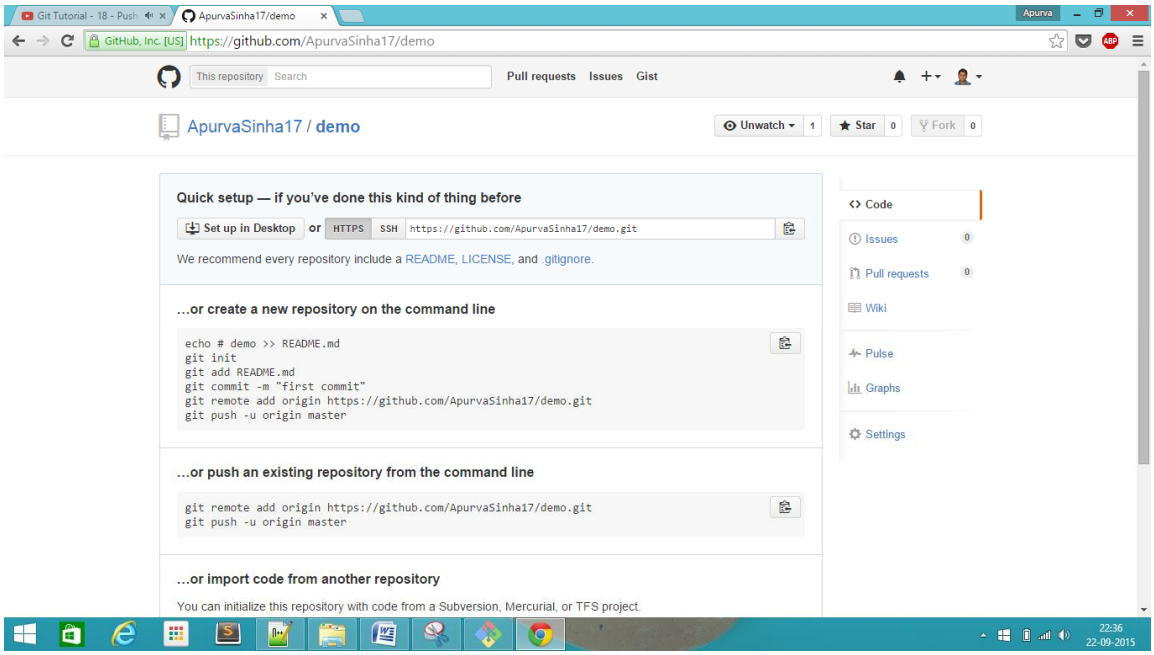
7. Do **git init** to create an empty local git repository. **git add .** adds all the content in that folder to your local git repository. **git commit –m 'Initial commit"** commits all the files to your local git repository.

8. In your browser, go to www.Github.com and create an account (if you don't have). Remember to note down your user name and password.

9. Login to Github and create a new repository. Click on ‘Create Repository’.



10. Copy the git url.



11. Go back to ‘Git Bash’ and type:

    git remote add githubRepo https://github.com/ApurvaSinha17/demo.git

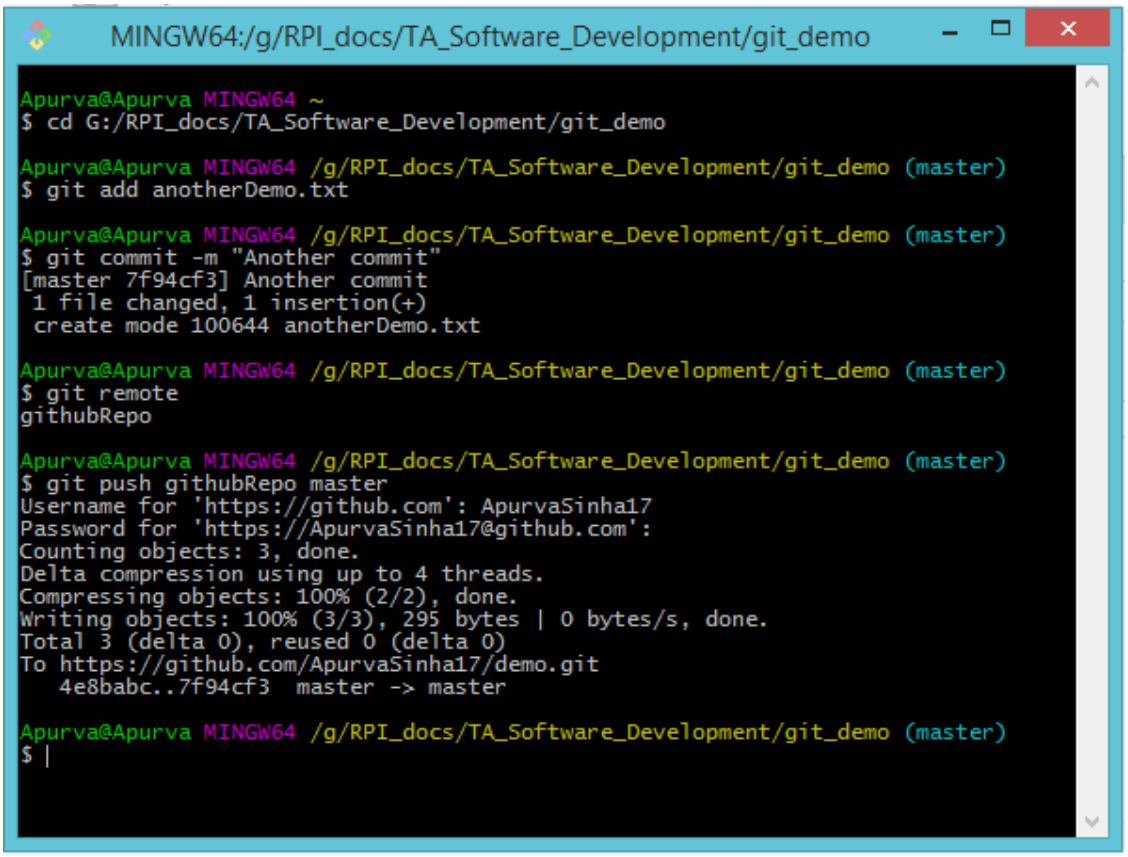
    githubRepo is the name of your remote repository (it can be any name)

    The remote git url (highlighted in yellow) should be the url that you get when you create a new repository at Github.

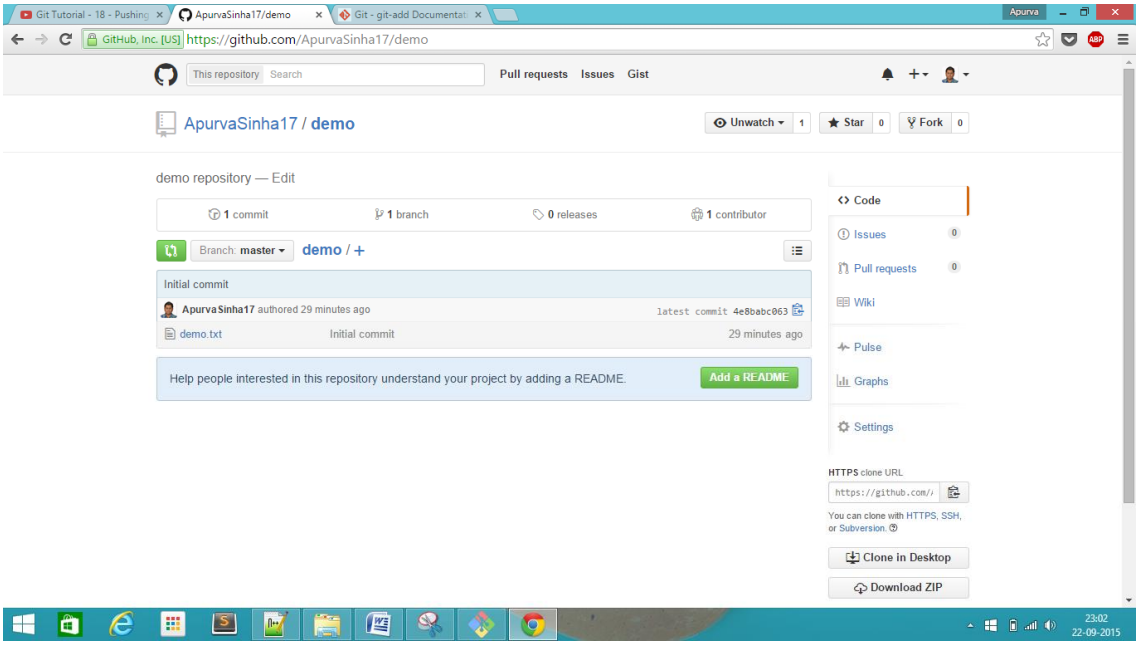
12. To push the file to your Github repository, type:

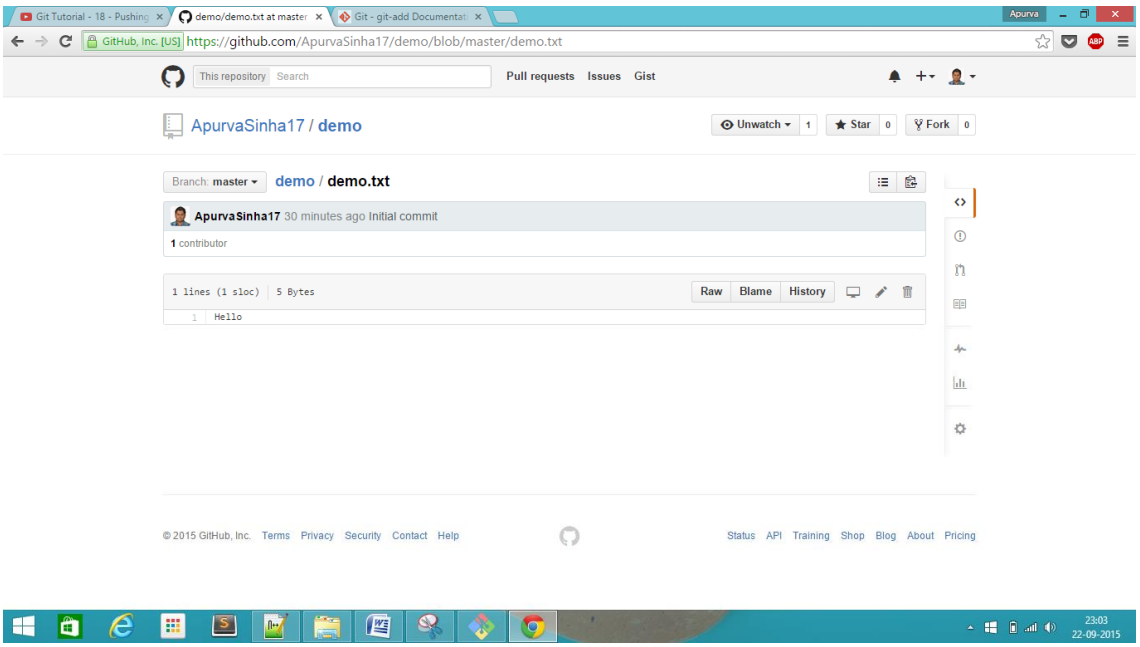
    git push -u githubRepo master

    -u flag enables you to not always specify the remote, every time you do git push



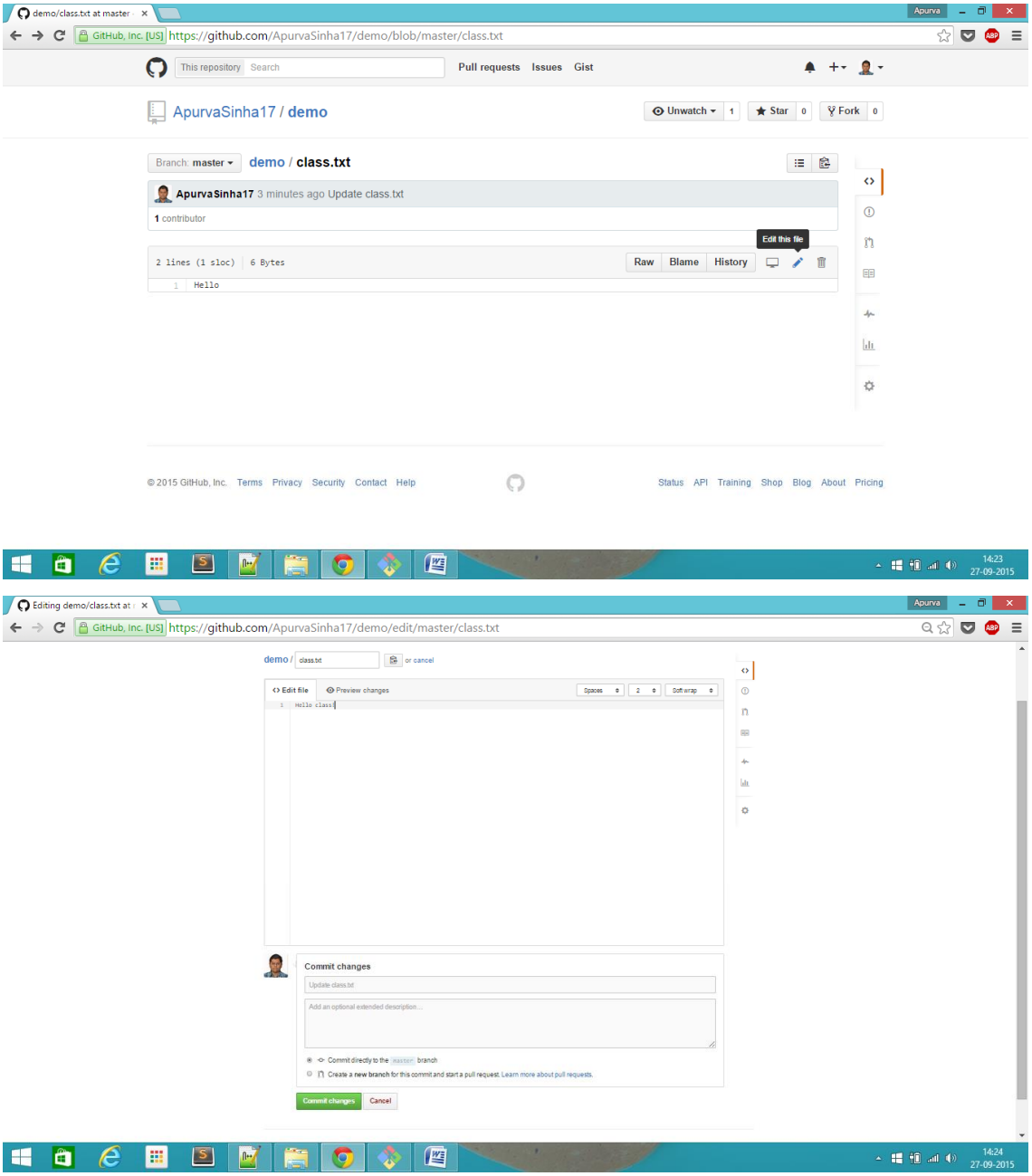
13. Refresh the Github page where you created a new repository. It should show the files that you pushed.



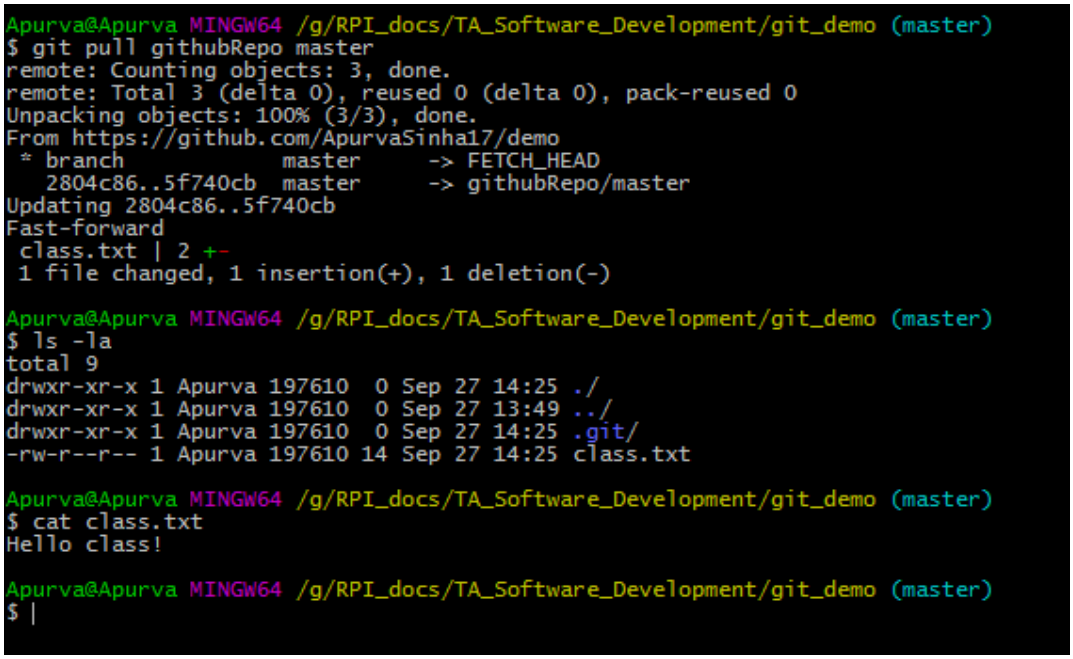


14. Syncing your local git repository with Github:

a) Edit the file at Github and commit it.



b) In ‘Git Bash’ type: **git pull githubRepo master**



File gets updated in your local git repository.

15. Cloning git repository from Github. (This demo shows cloning of the Github repository to another folder in the same machine and same user account, but generally this is done for another user account and another machine)
    a) Create another folder say ‘clone_git_demo’ and go to that folder through ‘Git Bash’.
    b) Clone the Github repository to that folder using the command:

    git clone https://github.com/ApurvaSinha17/demo.git

```
Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$ cd G:/RPI_docs/TA_Software_Development/clone_git_demo

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/clone_git_demo
$ git clone https://github.com/ApurvaSinha17/demo.git
Cloning into 'demo'...
remote: Counting objects: 37, done.
remote: Compressing objects: 100% (20/20), done.
remote: Total 37 (delta 3), reused 20 (delta 1), pack-reused 0
Unpacking objects: 100% (37/37), done.
Checking connectivity... done.

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/clone_git_demo
$ ls -la
total 4
drwxr-xr-x 1 Apurva 197610 0 Sep 27 14:37 ./
drwxr-xr-x 1 Apurva 197610 0 Sep 27 14:36 ../
drwxr-xr-x 1 Apurva 197610 0 Sep 27 14:37 demo/

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/clone_git_demo
$ cd demo

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/clone_git_demo/demo (master)
$ ls -la
total 5
drwxr-xr-x 1 Apurva 197610  0 Sep 27 14:37 ./
drwxr-xr-x 1 Apurva 197610  0 Sep 27 14:37 ../
drwxr-xr-x 1 Apurva 197610  0 Sep 27 14:37 .git/
-rw-r--r-- 1 Apurva 197610 14 Sep 27 14:37 class.txt

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/clone_git_demo/demo (master)
$ cat class.txt
Hello class!

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/clone_git_demo/demo (master)
$
```

Github repository is cloned to that folder.

16. Resolving merge conflicts:

a) Modify class.txt in one folder, commit, and push to Github.

```
Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/clone_git_demo/demo (master)
$ cat class.txt
Hello class!

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/clone_git_demo/demo (master)
$ cat class.txt
Hello class!
one
Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/clone_git_demo/demo (master)
$ git add .

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/clone_git_demo/demo (master)
$ git commit -m 'one'
[master 4da9990] one
 1 file changed, 1 insertion(+)

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/clone_git_demo/demo (master)
$ git push origin master
Username for 'https://github.com': ApurvaSinha17
Password for 'https://ApurvaSinha17@github.com':
Counting objects: 3, done.
Writing objects: 100% (3/3), 261 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/ApurvaSinha17/demo.git
   5f740cb..4da9990  master -> master

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/clone_git_demo/demo (master)
$
```

b) Go to the other folder, and again modify class.txt differently, commit, and push to Github. This time, you should get an error, because your file is not in sync with Github and you have modified the same file.

```
Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/clone_git_demo/demo (master)
$ cd G:/RPI_docs/TA_Software_Development/git_demo

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$ ls -la
total 9
drwxr-xr-x 1 Apurva 197610  0 Sep 27 14:25 ./
drwxr-xr-x 1 Apurva 197610  0 Sep 27 14:36 ../
drwxr-xr-x 1 Apurva 197610  0 Sep 27 14:25 .git/
-rw-r--r-- 1 Apurva 197610 14 Sep 27 14:25 class.txt

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$ cat class.txt
Hello class!

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$ cat class.txt
Hello class!
two

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$ git add .

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$ git commit -m 'two'
[master 3fa054b] two
 1 file changed, 1 insertion(+)

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$ git push githubRepo master
Username for 'https://github.com': ApurvaSinha17
Password for 'https://ApurvaSinha17@github.com':
To https://github.com/ApurvaSinha17/demo.git
 ! [rejected]        master -> master (fetch first)
error: failed to push some refs to 'https://github.com/ApurvaSinha17/demo.git'
hint: Updates were rejected because the remote contains work that you do
hint: not have locally. This is usually caused by another repository pushing
hint: to the same ref. You may want to first integrate the remote changes
hint: (e.g., 'git pull ...') before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$ |
```

c) To see the conflict, type: **git pull githubRepo master**

```
Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$ git pull githubRepo master
remote: Counting objects: 3, done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/ApurvaSinha17/demo
 * branch            master     -> FETCH_HEAD
   5f740cb..4da9990  master     -> githubRepo/master
Auto-merging class.txt
CONFLICT (content): Merge conflict in class.txt
Automatic merge failed; fix conflicts and then commit the result.

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master|MERGING)
$ cat class.txt
Hello class!
<<<<<<< HEAD
two
=======
one
>>>>>>> 4da9990d54f95dadbac8c2b78b65903ee76591ea

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master|MERGING)
$ |
```

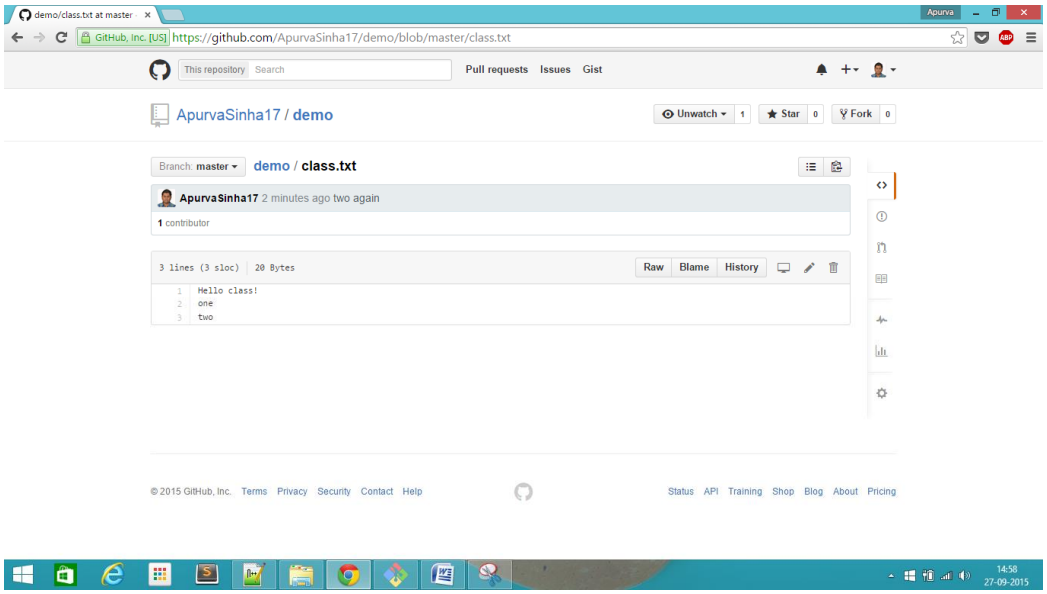
d) To fix this conflict, create a backup of your file, revert your commit, and then again do git pull.

To revert to the previous commit, type: **git reset --hard HEAD^**

```
Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master|MERGING)
$ git reset --hard HEAD^
HEAD is now at 5f740cb Update class.txt

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$ git pull githubRepo master
From https://github.com/ApurvaSinha17/demo
 * branch            master     -> FETCH_HEAD
Updating 5f740cb..4da9990
Fast-forward
 class.txt | 1 +
 1 file changed, 1 insertion(+)

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$ cat class.txt
Hello class!
one
Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$
```

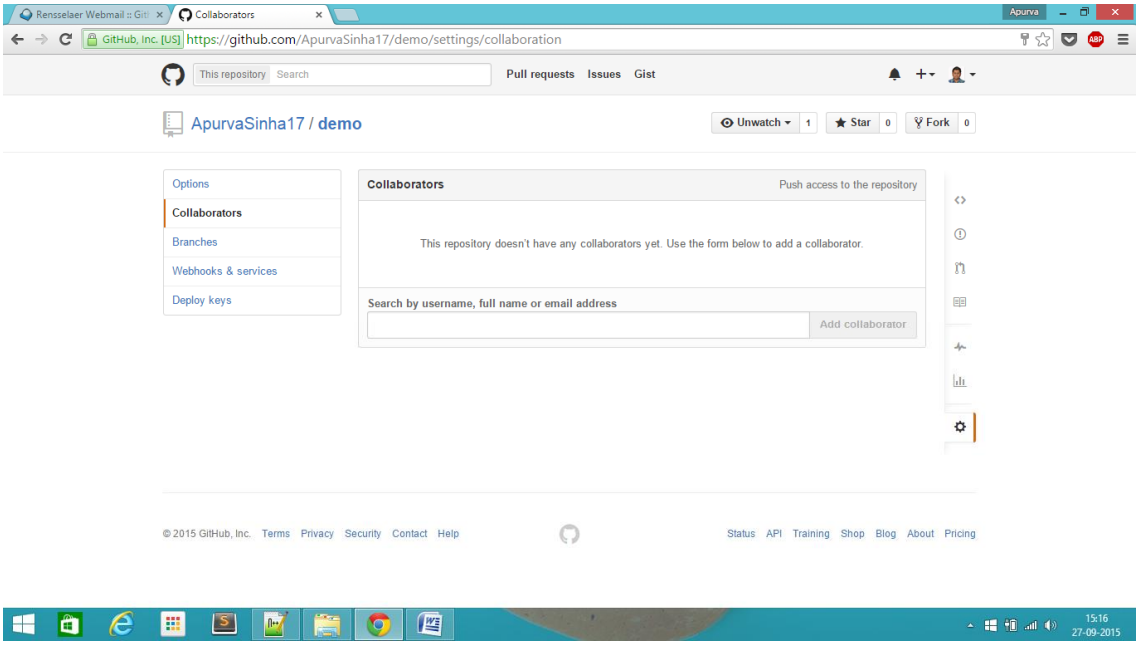
e) Now if you commit and push the modified file to Github, it should be successful.

```
Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$ cat class.txt
Hello class!
one
Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$ cat class.txt
Hello class!
one
two
Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$ git add .

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$ git commit -m 'two again'
[master 863fd8e] two again
 1 file changed, 2 insertions(+), 1 deletion(-)

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$ git push githubRepo master
Username for 'https://github.com': ApurvaSinha17
Password for 'https://ApurvaSinha17@github.com':
Counting objects: 3, done.
Writing objects: 100% (3/3), 269 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/ApurvaSinha17/demo.git
   4da9990..863fd8e  master -> master

Apurva@Apurva MINGW64 /g/RPI_docs/TA_Software_Development/git_demo (master)
$
```

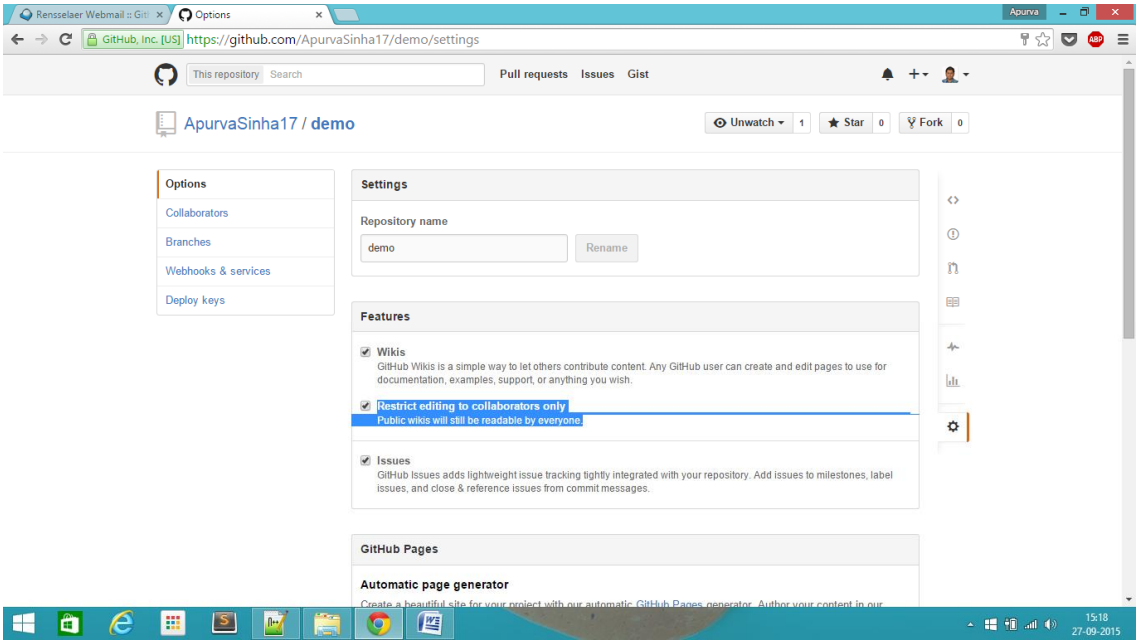


17. Type: **git help** in 'Git Bash' to explore all the git commands.

18. To add collaborators to your Github repository, go to 'Github.com' -> Your repository -> Settings -> Collaborators. Provide the Github username/full name/email address of that collaborator and click on 'Add collaborator'.

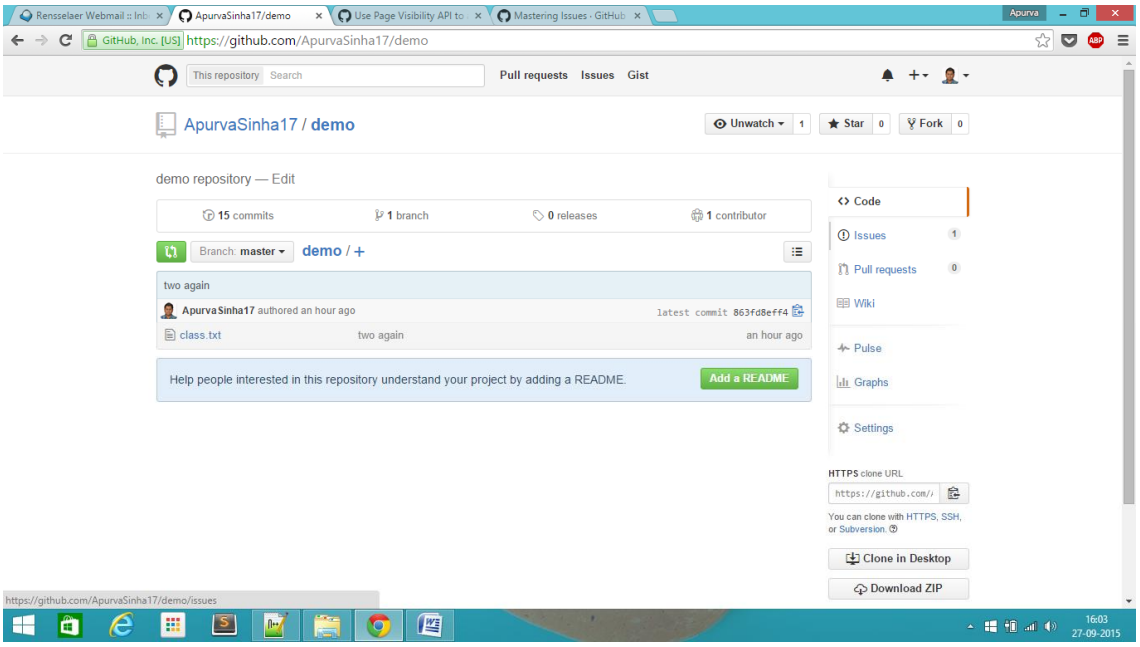


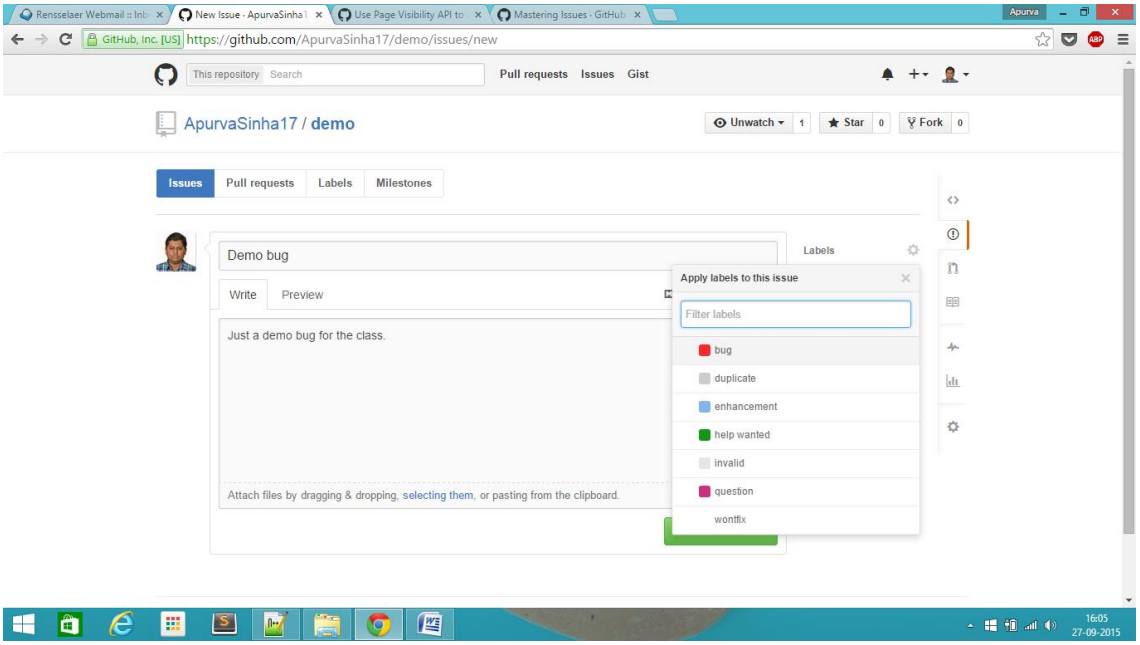
19. To restrict editing to collaborators, go to Settings -> Options and select ‘Restrict editing to collaborators only’ checkbox.

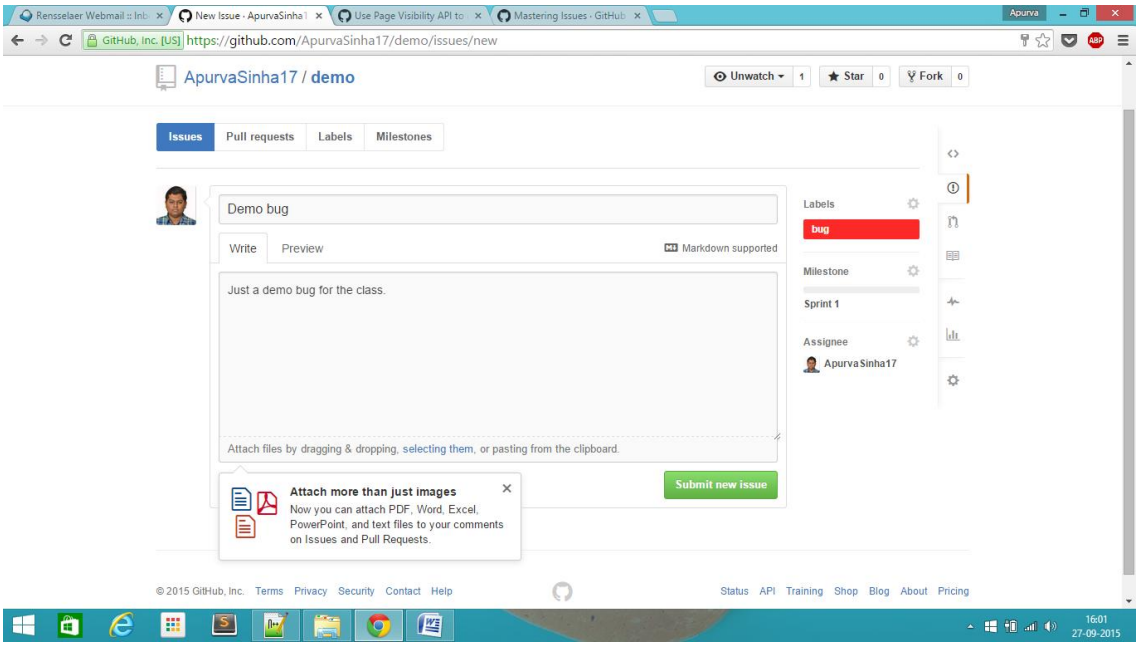


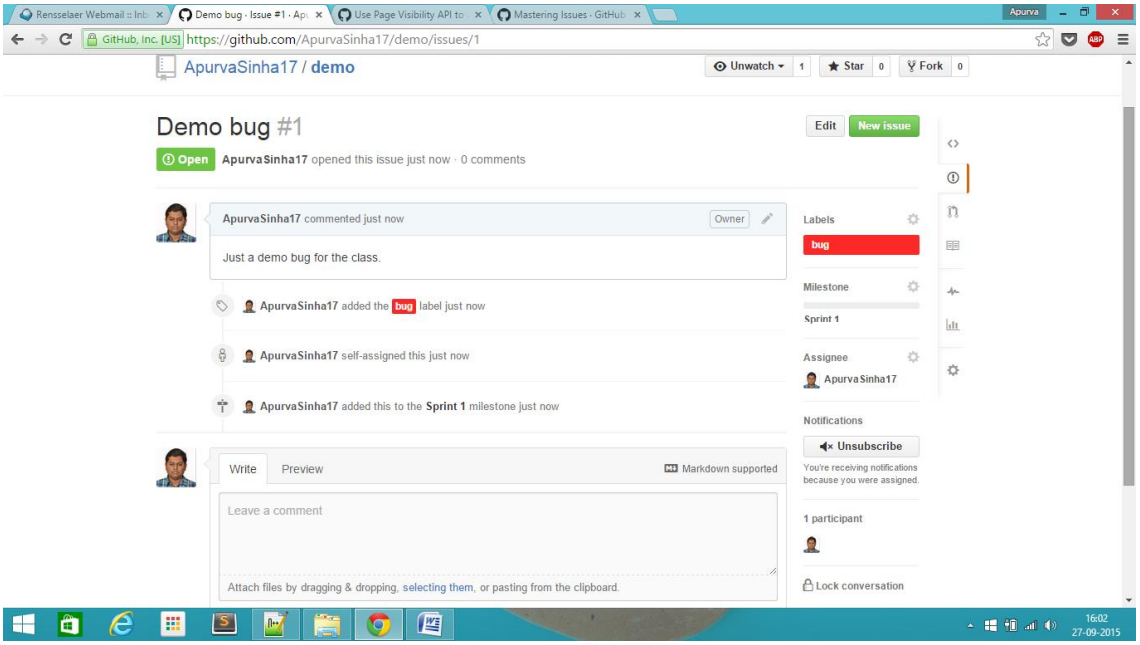
20. Managing Issues in Github:

You can report a bug in the Github repository by going to the ‘Issues’ section and submitting an issue as shown in the screenshots below. An issue has a title and description. It may also have labels, milestone, and assignee information. Milestones, labels, and assignees are great features to filter and categorize issues. You can put the Github username of a collaborator in the assignee field and that user will be notified.

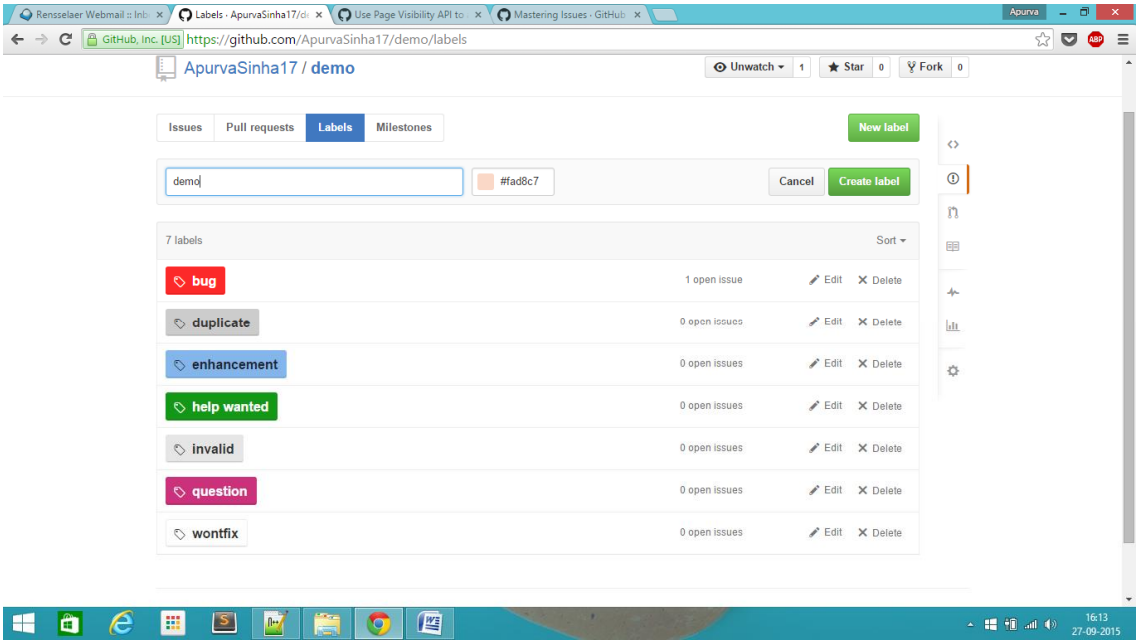

https://github.com/ApurvaSinha17/demo
This repository
Search
Pull requests
Issues
Gist
ApurvaSinha17 / demo
Unwatch 1
Star 0
Fork 0
demo repository — Edit
15 commits
1 branch
0 releases
1 contributor
Branch: master
demo / +
two again
ApurvaSinha17 authored an hour ago
latest commit 863fd8eff4
class.txt
two again
an hour ago
Help people interested in this repository understand your project by adding a README.
Add a README
Code
Issues 1
Pull requests 0
Wiki
Pulse
Graphs
Settings
HTTPS clone URL
https://github.com/
You can clone with HTTPS, SSH, or Subversion.
Clone in Desktop
Download ZIP
https://github.com/ApurvaSinha17/demo/issues
16:03
27-09-2015

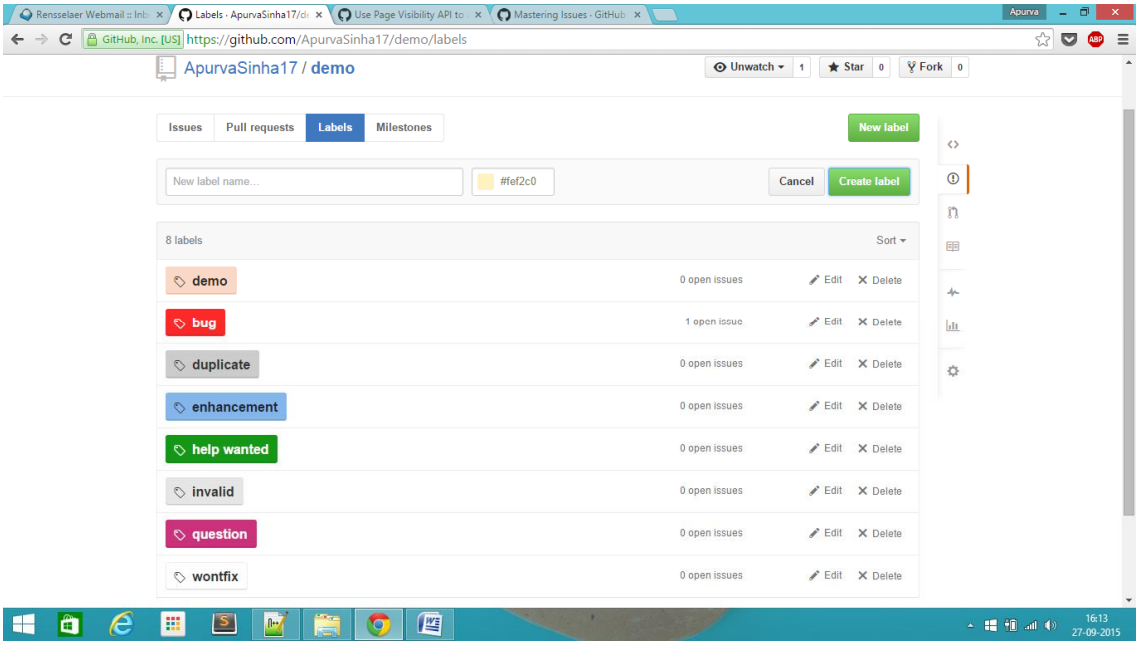

https://github.com/ApurvaSinha17/demo/issues/new
This repository
Search
Pull requests
Issues
Gist
ApurvaSinha17 / demo
Unwatch 1
Star 0
Fork 0
Issues
Pull requests
Labels
Milestones
Demo bug
Write
Preview
Just a demo bug for the class.
Attach files by dragging & dropping, selecting them, or pasting from the clipboard.
Labels
Apply labels to this issue
Filter labels
bug
duplicate
enhancement
help wanted
invalid
question
wontfix
16:05
27-09-2015


https://github.com/ApurvaSinha17/demo/issues/new
ApurvaSinha17 / demo
Unwatch 1
Star 0
Fork 0
Issues
Pull requests
Labels
Milestones
Demo bug
Write
Preview
Markdown supported
Just a demo bug for the class.
Attach files by dragging & dropping, selecting them, or pasting from the clipboard.
Submit new issue
Attach more than just images
Now you can attach PDF, Word, Excel, PowerPoint, and text files to your comments on Issues and Pull Requests.
Labels
bug
Milestone
Sprint 1
Assignee
ApurvaSinha17
© 2015 GitHub, Inc. Terms Privacy Security Contact Help
Status API Training Shop Blog About Pricing
16:01
27-09-2015

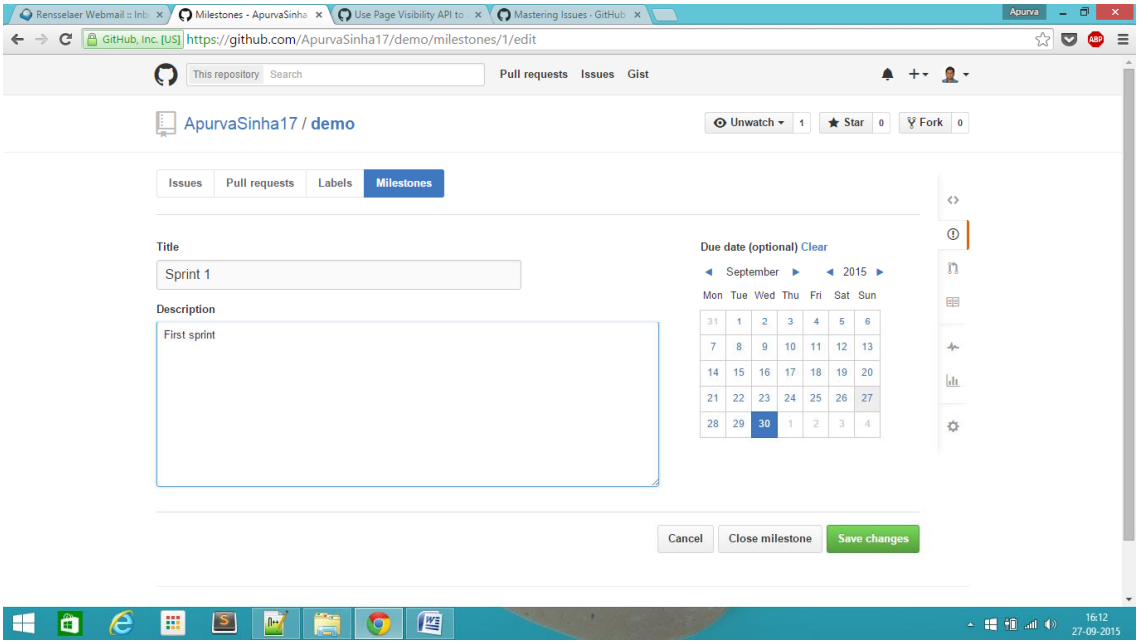

https://github.com/ApurvaSinha17/demo/issues/1
ApurvaSinha17 / demo
Unwatch 1
Star 0
Fork 0
Demo bug #1
Edit
New issue
Open
ApurvaSinha17 opened this issue just now · 0 comments
ApurvaSinha17 commented just now
Owner
Just a demo bug for the class.
ApurvaSinha17 added the bug label just now
ApurvaSinha17 self-assigned this just now
ApurvaSinha17 added this to the Sprint 1 milestone just now
Write
Preview
Markdown supported
Leave a comment
Attach files by dragging & dropping, selecting them, or pasting from the clipboard.
Labels
bug
Milestone
Sprint 1
Assignee
ApurvaSinha17
Notifications
Unsubscribe
You're receiving notifications because you were assigned.
1 participant
Lock conversation
16:02
27-09-2015

Add a new label as shown below.

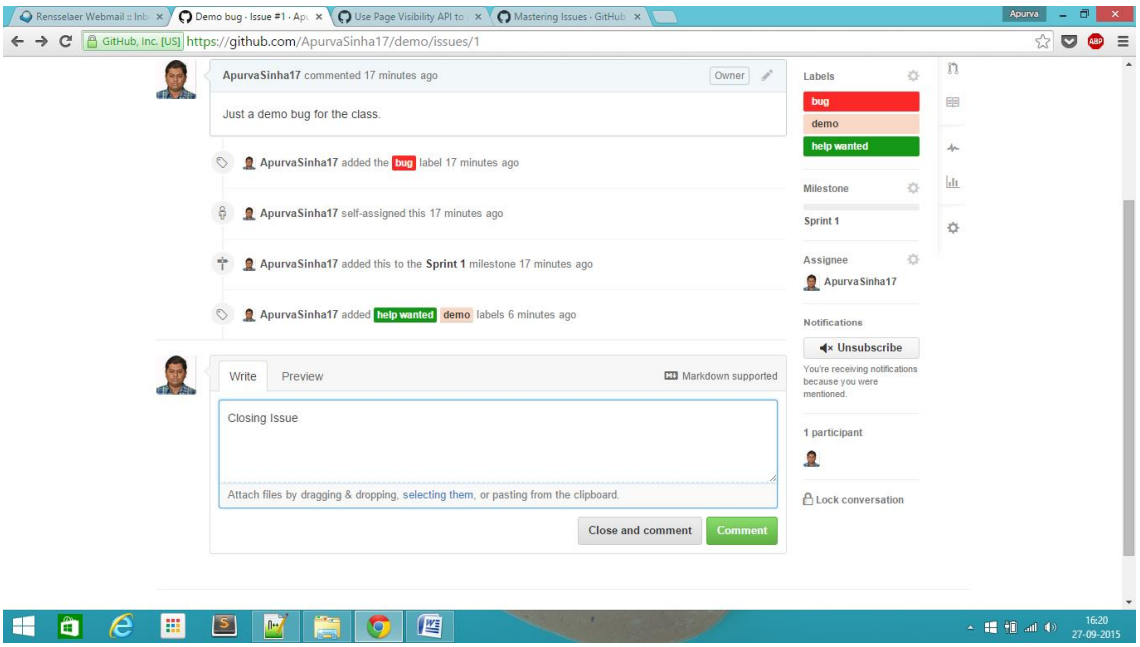


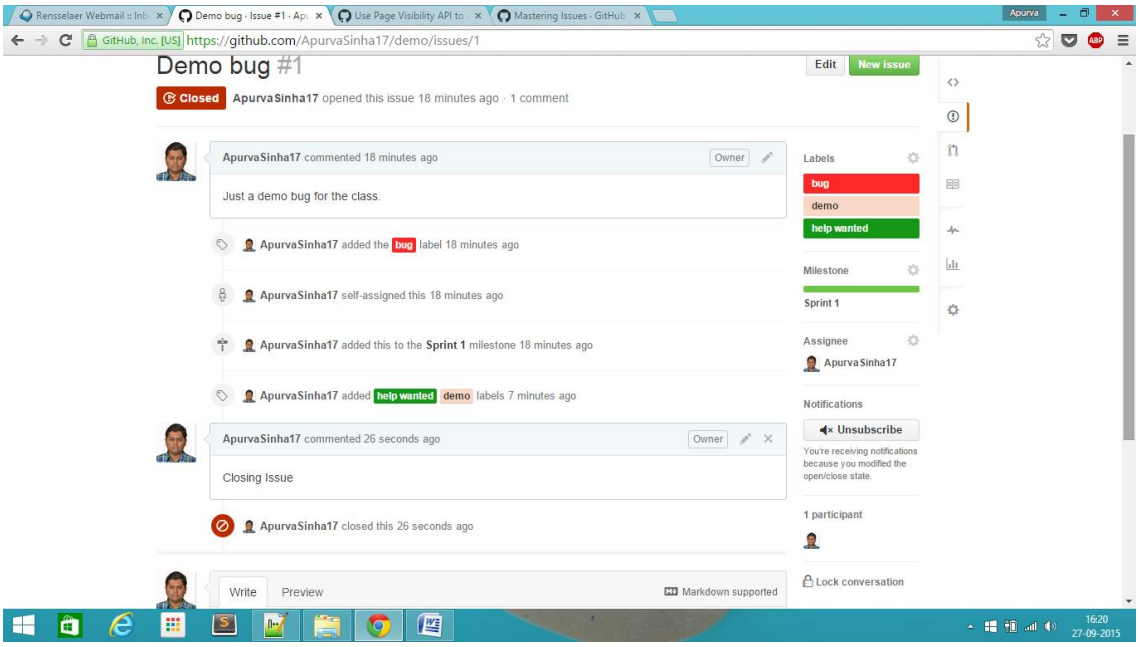


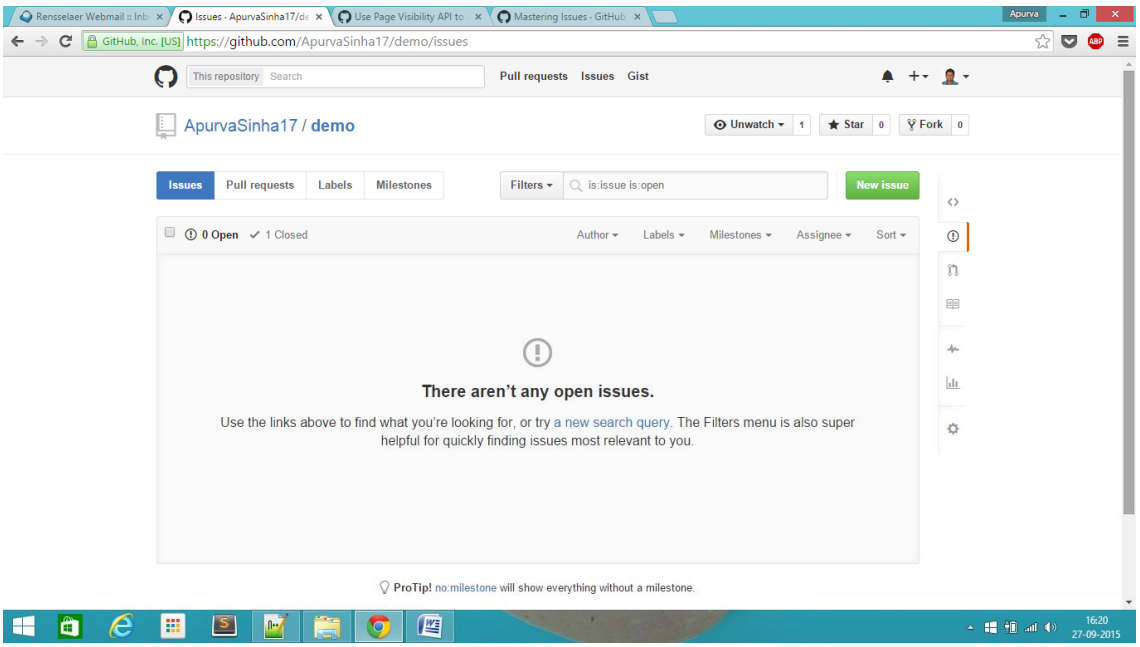
Add a due date to your milestone as shown below.



Close an issue as shown below. Click ‘Close and comment’ button after entering some text.

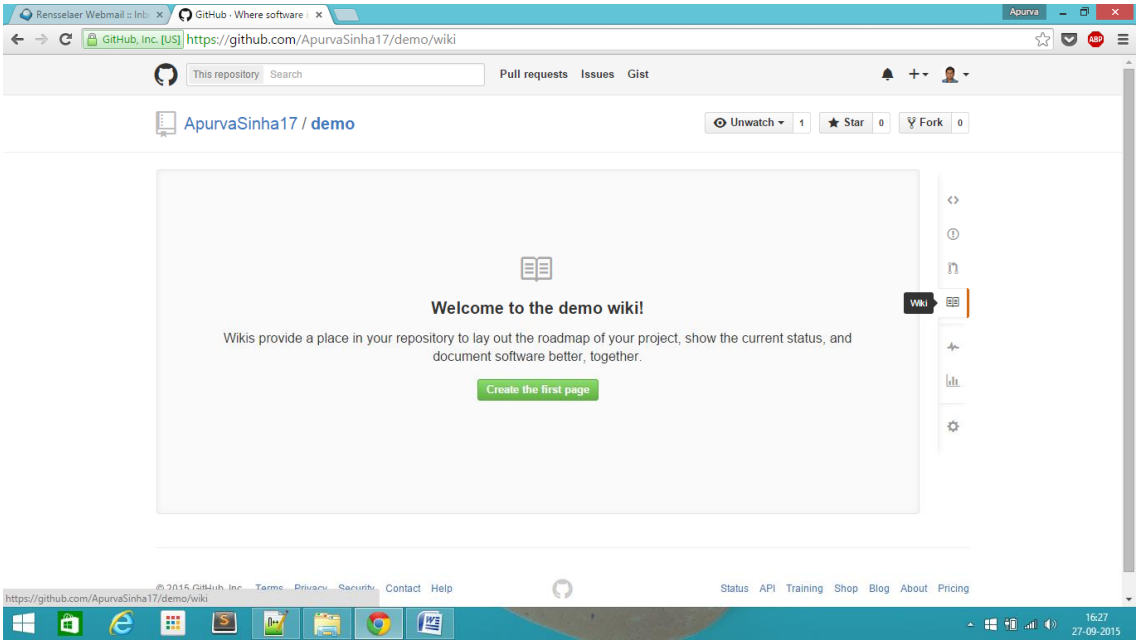


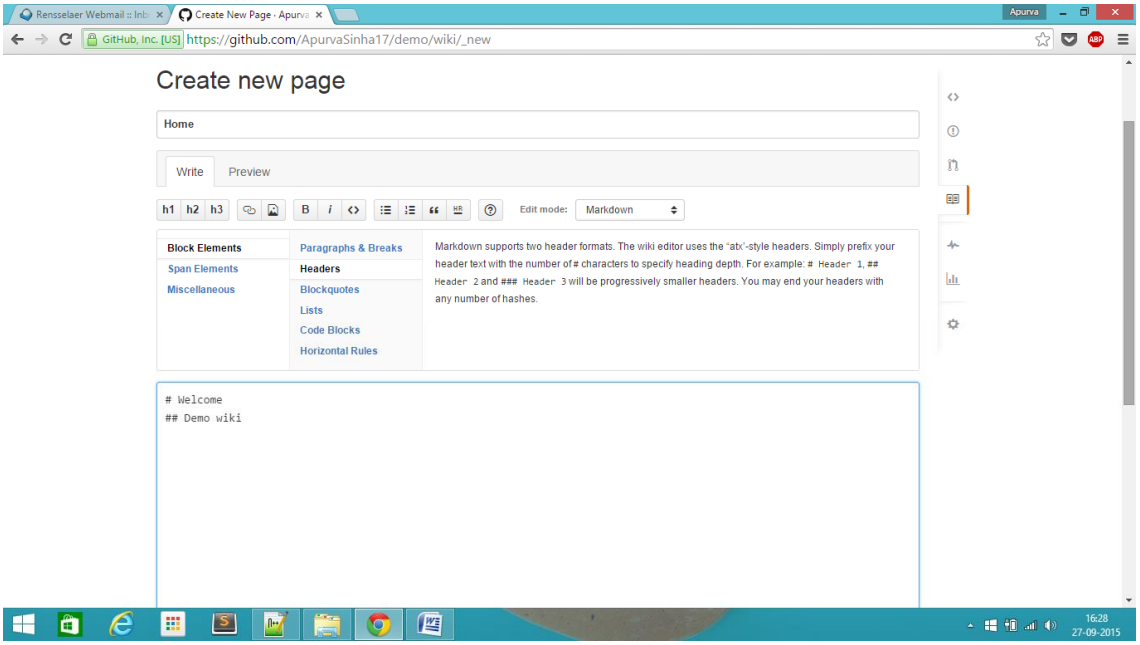


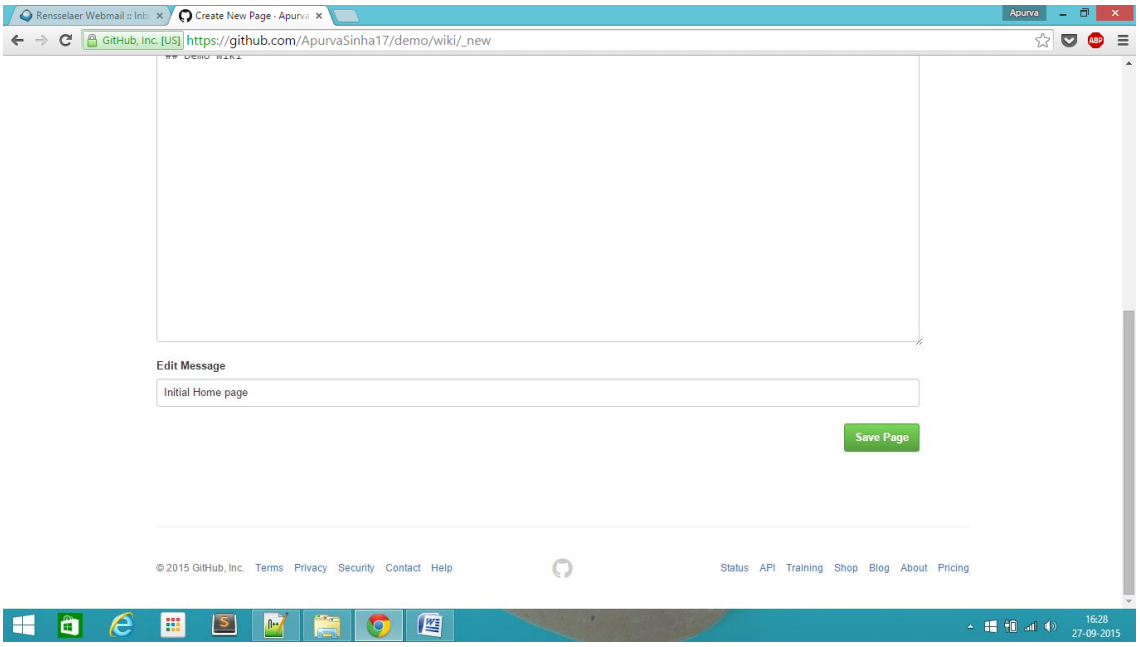


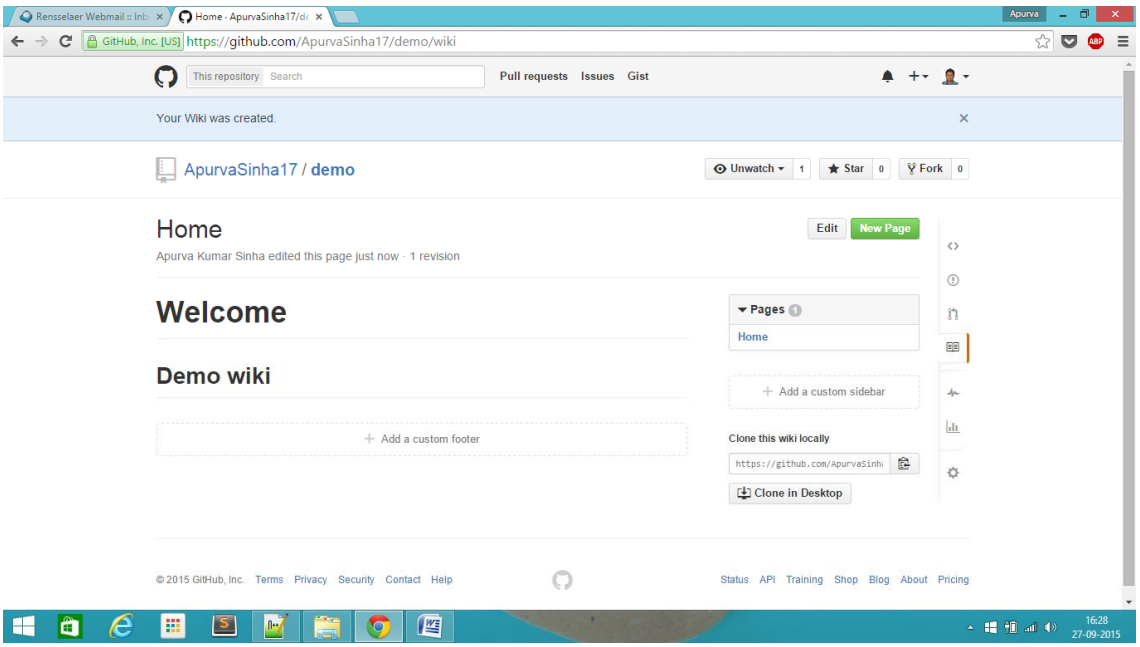
Reference: https://guides.github.com/features/issues/

21. Creating a wiki of your Github repository:






Rensselaer Webmail :: Inb
Create New Page · Apurva
Apurva
GitHub, Inc. [US] https://github.com/ApurvaSinha17/demo/wiki/_new
Edit Message
Initial Home page
Save Page
© 2015 GitHub, Inc. Terms Privacy Security Contact Help
Status API Training Shop Blog About Pricing
16:28
27-09-2015


Rensselaer Webmail :: Inb
Home · ApurvaSinha17/de
Apurva
GitHub, Inc. [US] https://github.com/ApurvaSinha17/demo/wiki
This repository Search
Pull requests Issues Gist
Your Wiki was created.
ApurvaSinha17 / demo
Unwatch 1
Star 0
Fork 0
Home
Apurva Kumar Sinha edited this page just now · 1 revision
Edit
New Page
Welcome
Demo wiki
Add a custom footer
Pages
Home
Add a custom sidebar
Clone this wiki locally
https://github.com/ApurvaSinha
Clone in Desktop
© 2015 GitHub, Inc. Terms Privacy Security Contact Help
Status API Training Shop Blog About Pricing
16:28
27-09-2015