Source Code Management with Git

Handson Workbook

Copyright © 2023 Accenture. All Rights Reserved.

1. Table of Contents

1. Activity1: Install Git and Initial configuration of Git.....2
2. Activity2: Working in GitHub..... 5

Activity 1

Install Git and Initial configuration of Git

Scenario

To get started hands on for Git, we need to install GIT based on OS we use.

Copyright © 2023 Accenture. All Rights Reserved.

Steps

1

Installation Commands:

Following table lists the commands to install Git in different operating systems:

Operating System	Command to Install
Linux	Run the following command: `sudo yum install git`
Debian-based like Ubuntu	Run the following command: `sudo apt-get install git`
Windows	Access the following link: Git - Downloading Package (git-scm.com)The download will start automatically. PFA doc. For git installing git instructions.

2

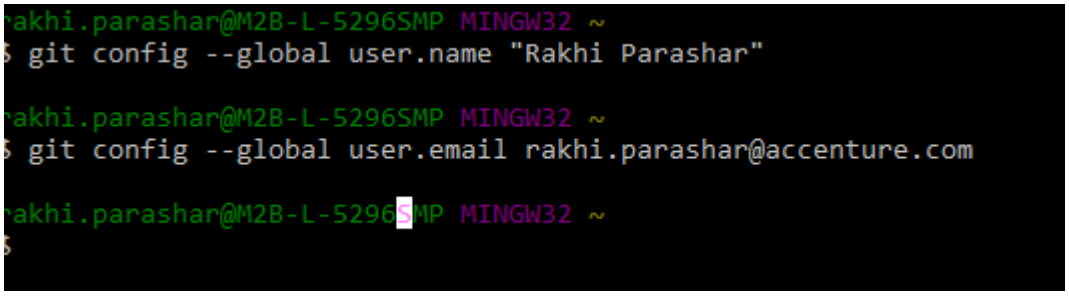
Initial Configuration Setup:

To set an identity, use the following commands:

```
git config --global user.name <name>
git config --global user.email <email>
```

Example:

```
git config --global user.name Rakhi Parashar
git config --global user.email rakhi.Parashar@accenture.com
```



3

To view all the configurations, use the following command:

```
git config --list
```

Copyright © 2023 Accenture. All Rights Reserved.

```
rakhi.parashar@M2B-L-5296SMP MINGW32 ~
$ git config --list
core.symlinks=false
core.autocrlf=true
core.fscache=true
color.diff=auto
color.status=auto
color.branch=auto
color.interactive=true
help.format=html
rebase.autosquash=true
http.sslcainfo=C:/Users/rakhi.parashar/AppData/Local/Programs/Git/mingw32/ssl/certs/ca-bundle.crt
diff.astextplain.textconv=astextplain
filter.lfs.clean=git-lfs clean -- %f
filter.lfs.smudge=git-lfs smudge -- %f
filter.lfs.required=true
filter.lfs.process=git-lfs filter-process
pack.packsizelimit=2g
gui.recentrepo=C:/Users/rakhi.parashar/develop
gui.recentrepo=C:/Devops/TestRakhi
gui.recentrepo=C:/Devops/TestRakhi
gui.recentrepo=C:/Data/DevopsAcademy/ExampleProject
user.name=Rakhi Parashar
user.email=rakhi.parashar@accenture.com

rakhi.parashar@M2B-L-5296SMP MINGW32 ~
```

4

Initializing Git repository:

To initialize Git repository run the following commands:

`git init` (to initialize git repository)

`cd .git` (go to git directory and verifying GIT repository initialization)

`dir` (to list all files and directories .git contains)

```
jaswanth.k.konduru@HDC2-L-F2AKE8B MINGW64 ~
$ mkdir gitpractice

jaswanth.k.konduru@HDC2-L-F2AKE8B MINGW64 ~
$ cd gitpractice/

jaswanth.k.konduru@HDC2-L-F2AKE8B MINGW64 ~/gitpractice
$ pwd
/c/Users/jaswanth.k.konduru/gitpractice

jaswanth.k.konduru@HDC2-L-F2AKE8B MINGW64 ~/gitpractice
$ git init
Initialized empty Git repository in C:/Users/jaswanth.k.konduru/gitpractice/.git/

jaswanth.k.konduru@HDC2-L-F2AKE8B MINGW64 ~/gitpractice (master)
$ cd .git

jaswanth.k.konduru@HDC2-L-F2AKE8B MINGW64 ~/gitpractice/.git (GIT_DIR!)
$ dir
HEAD  config  description  hooks  info  objects  refs

jaswanth.k.konduru@HDC2-L-F2AKE8B MINGW64 ~/gitpractice/.git (GIT_DIR!)
$ ls -a
./  ../  HEAD  config  description  hooks/  info/  objects/  refs/
```

Copyright © 2023 Accenture. All Rights Reserved.

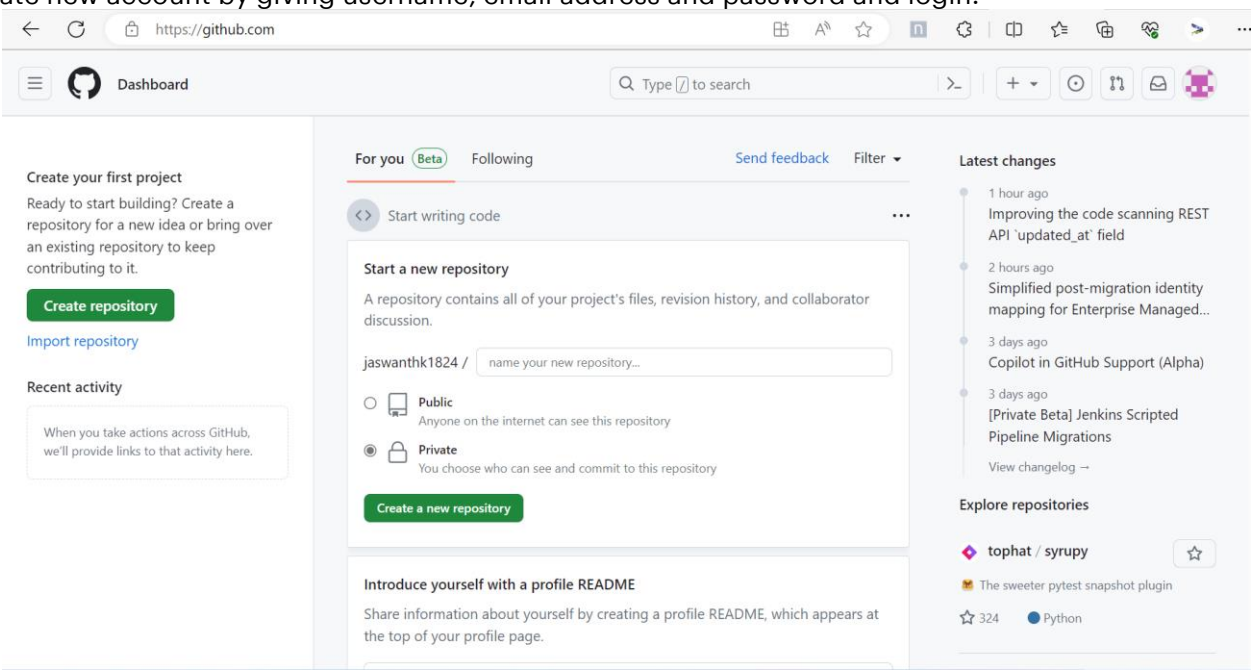
Activity2

Working in GitHub

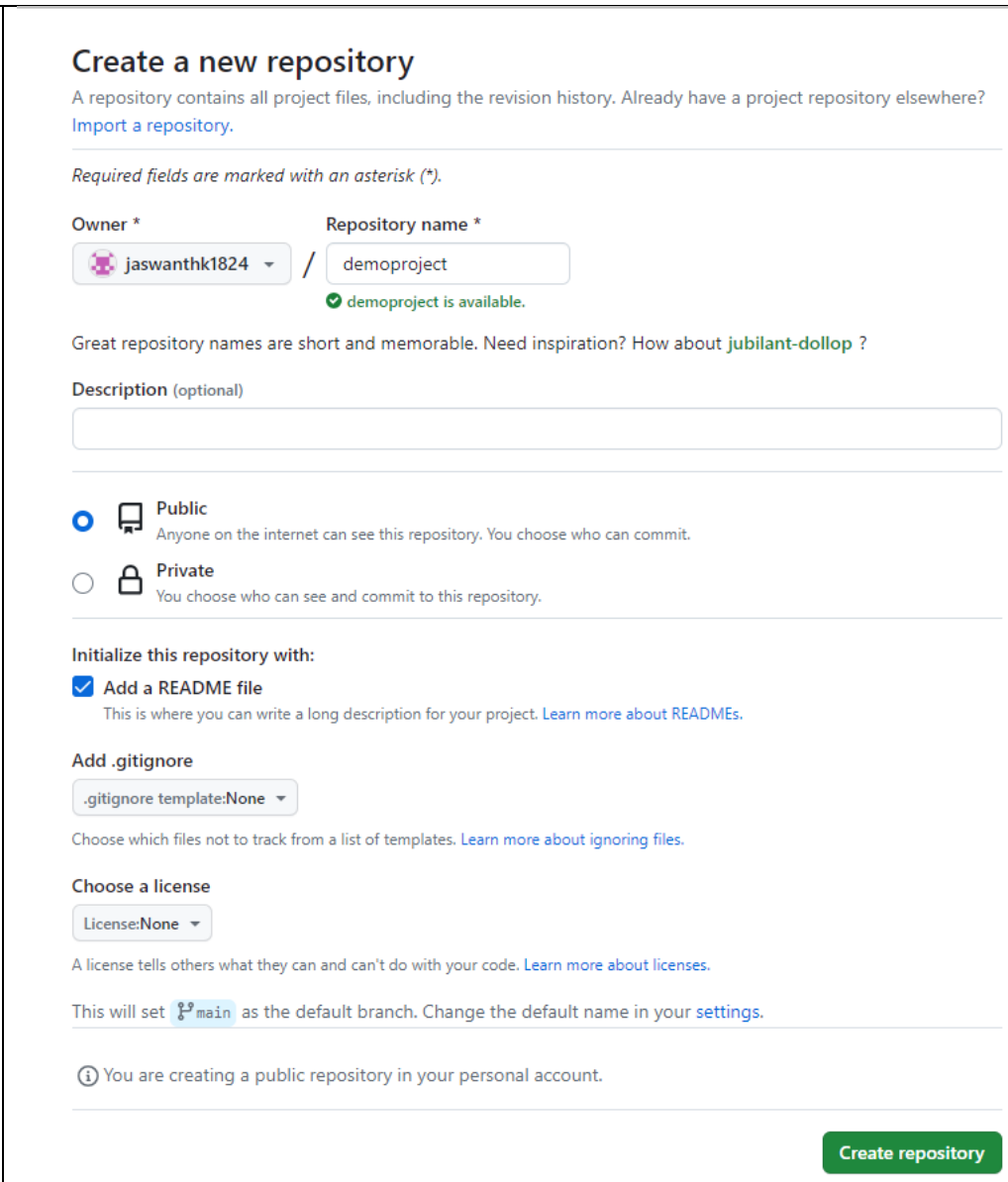
Scenario

Create an account in GitHub. Login to the GitHub and create a new repository as NewProject and branch gitbash. Create and add the file to the project. Make some changes in the code and then commit your changes in the main as well as develop.

Steps

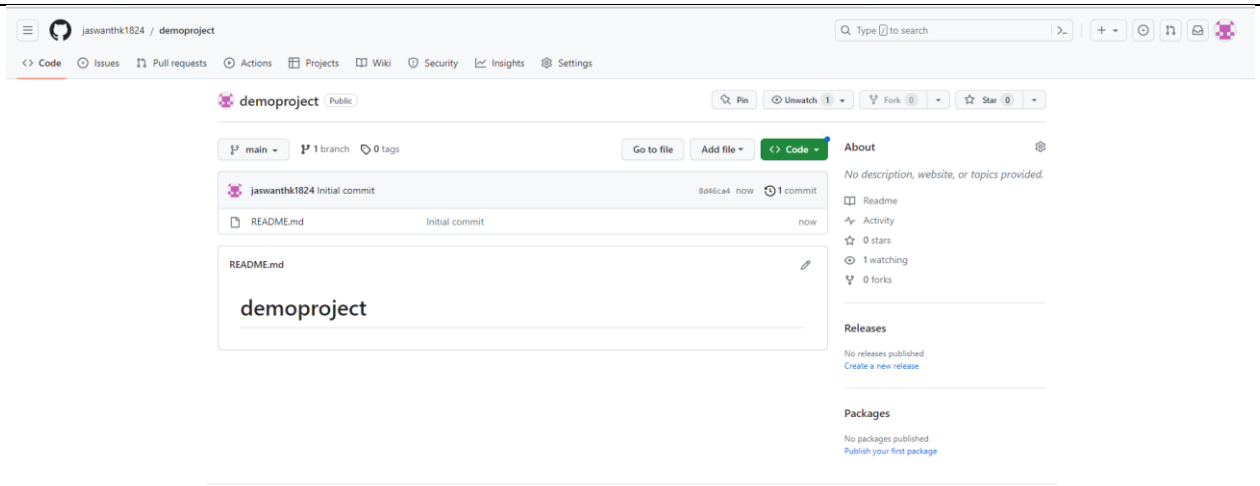
1	**Creating a GitHub Account:** 1. Login to https://github.com/signup in new browser. 2. Create new account by giving username, email address and password and login. 
2	**Creating Github Repository:** 1. Click **New repository** to create a repository. 2. Provide name of new Repository Example: **demoproject.** 3. Select for **Public** button. 4. Check "**Initialize this repository with a README**" 5. Click **Create repository**.

Copyright © 2023 Accenture. All Rights Reserved.



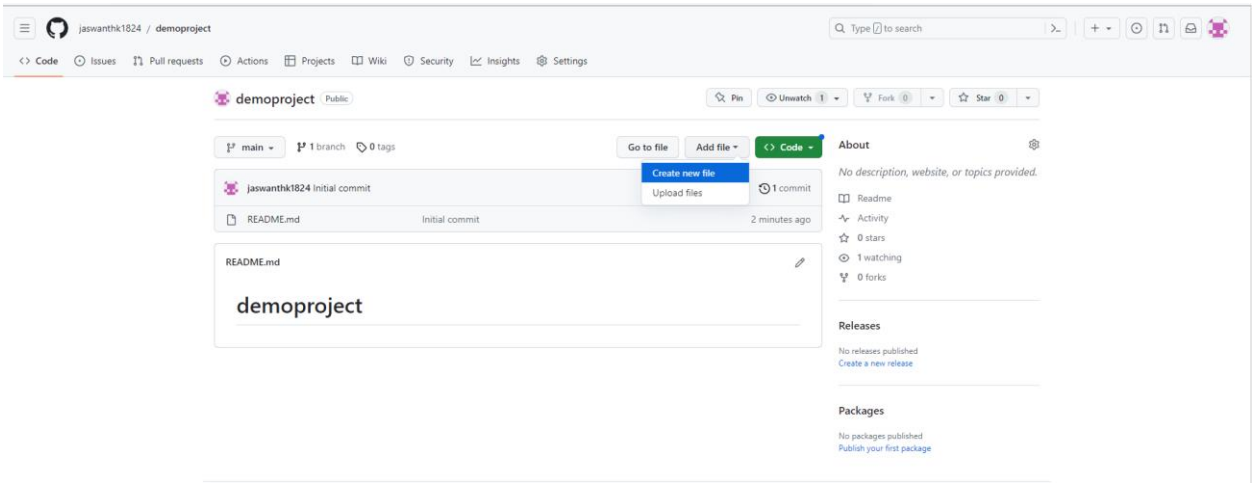
Please review your repository created as below:

Copyright © 2023 Accenture. All Rights Reserved.

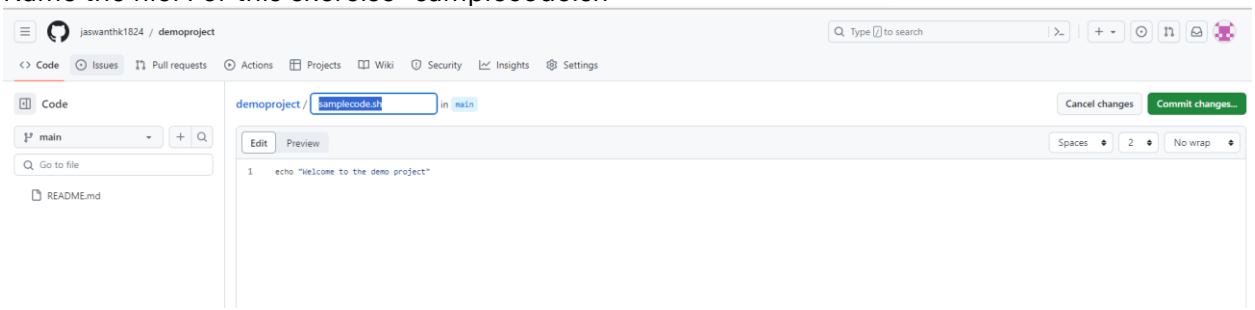


3 **Adding a new file**

1. Click **Create new file**.



2. Name the file. For this exercise “samplecode.sh”

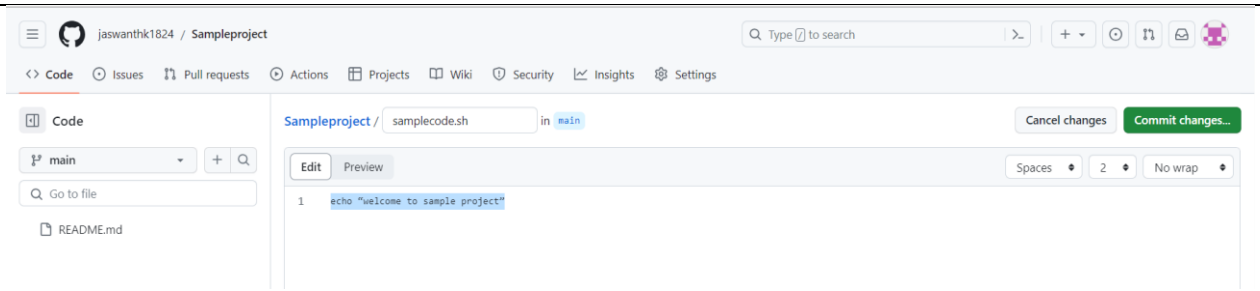


3. Add lines of code.

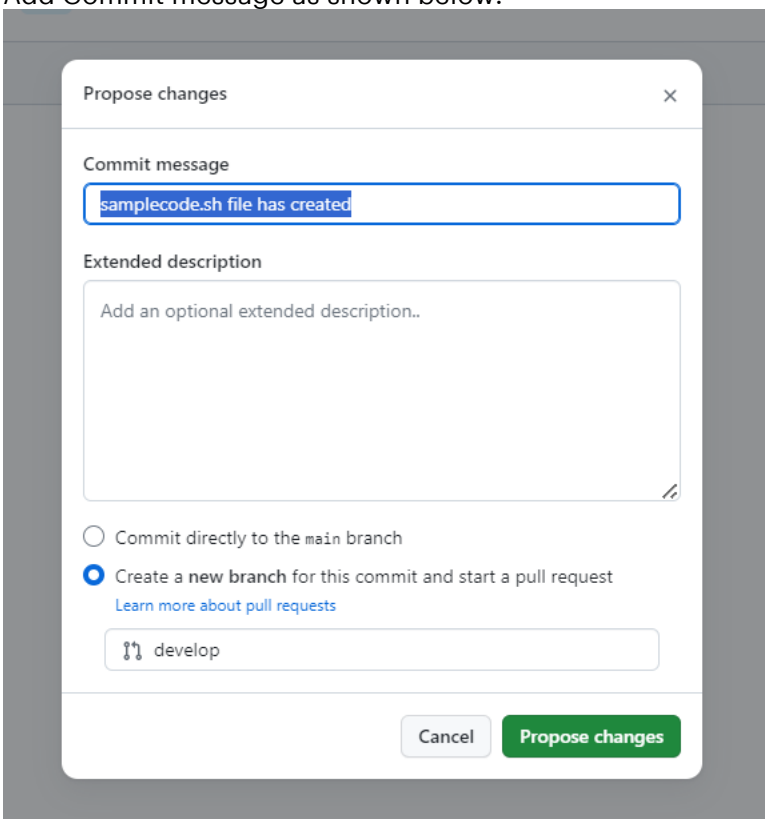
For example:

echo “welcome to the demo project”

Copyright © 2023 Accenture. All Rights Reserved.

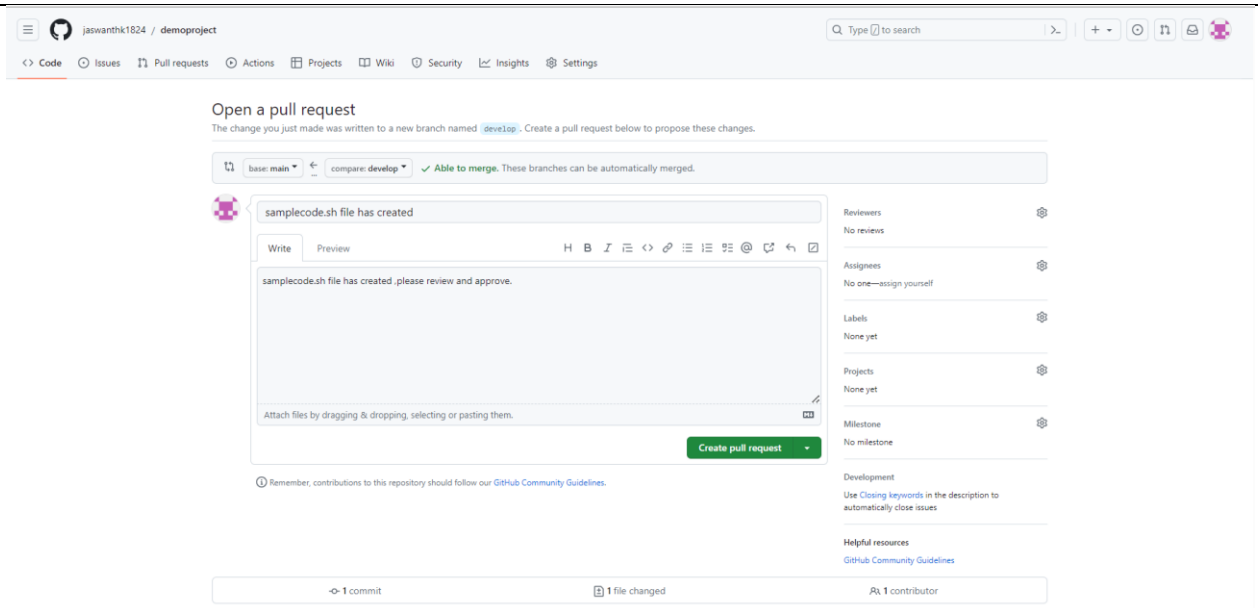


4. Click on **Commit Changes...**
5. Add Commit message as shown below.

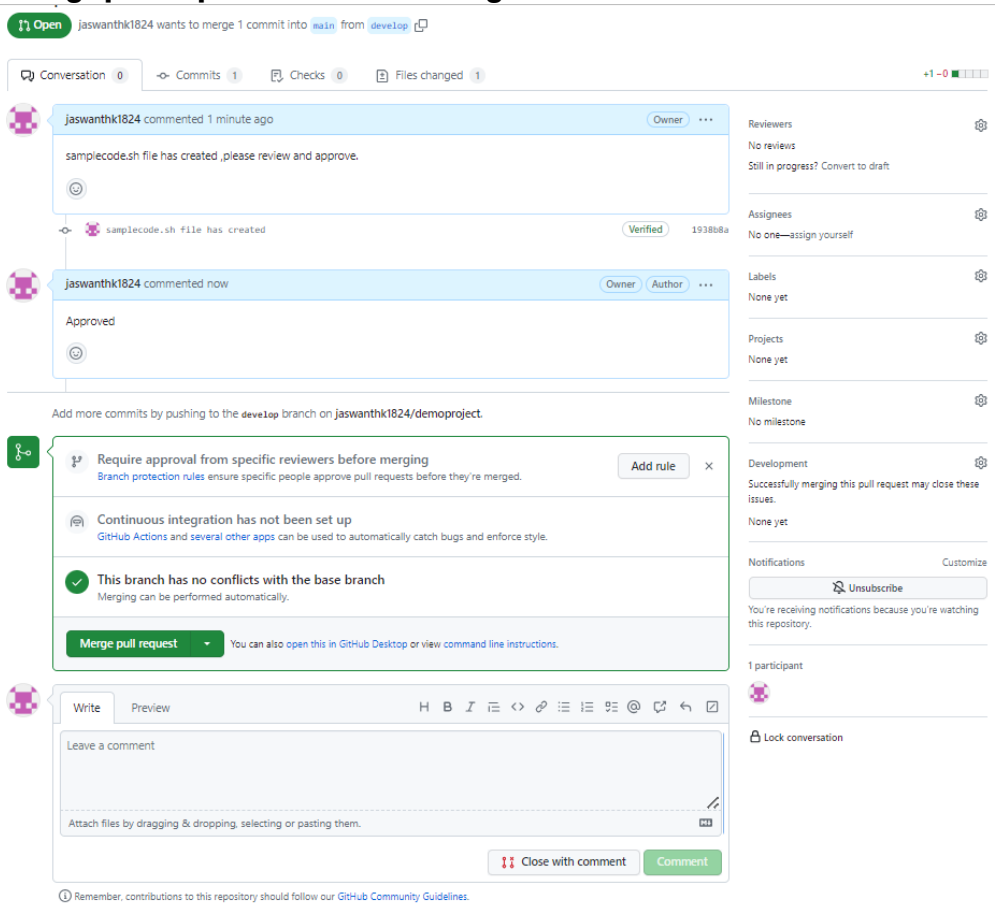


6. Ensure that **create a new branch for this commit and start a pull request** and provide branch name as **develop** as shown above.
7. Click on **Propose Changes**
8. Now add comments and click on **create pull request**

Copyright © 2023 Accenture. All Rights Reserved.

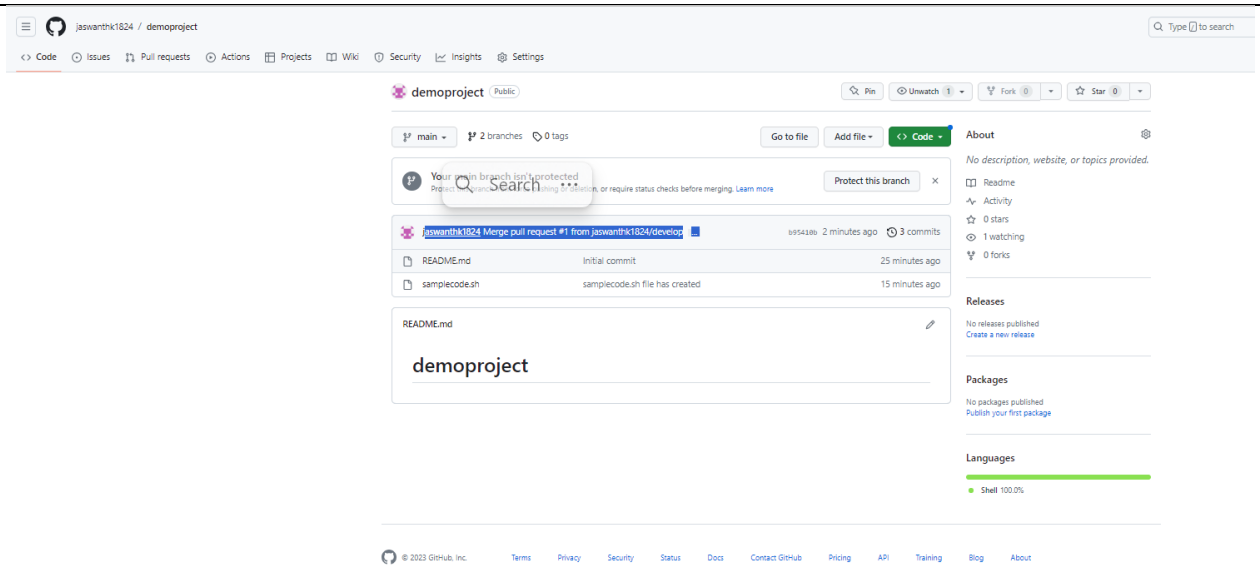


9.Now click on **merge pull request and confirm merge.**



10.Pull request is successfully merged and closed and verify your newly created file in main branch.

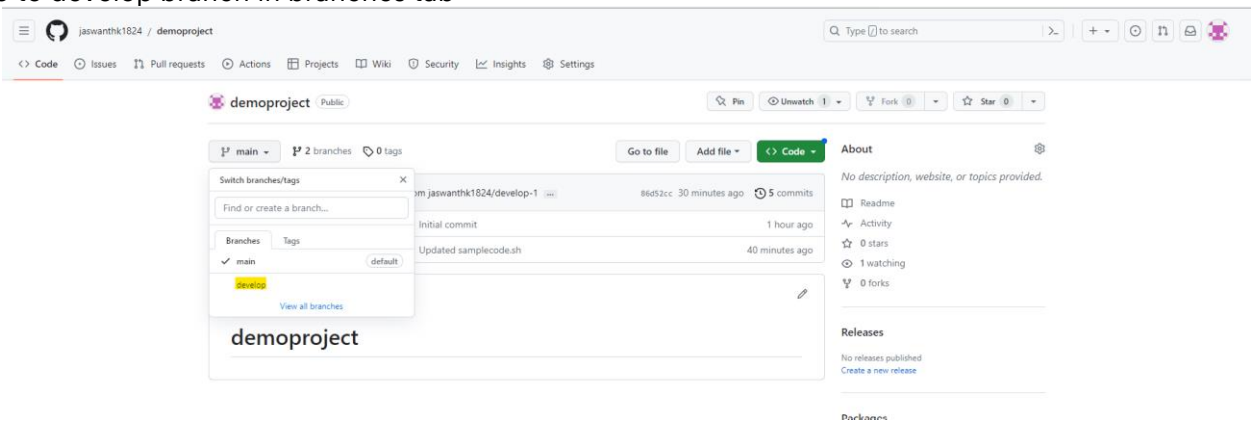
Copyright © 2023 Accenture. All Rights Reserved.



5

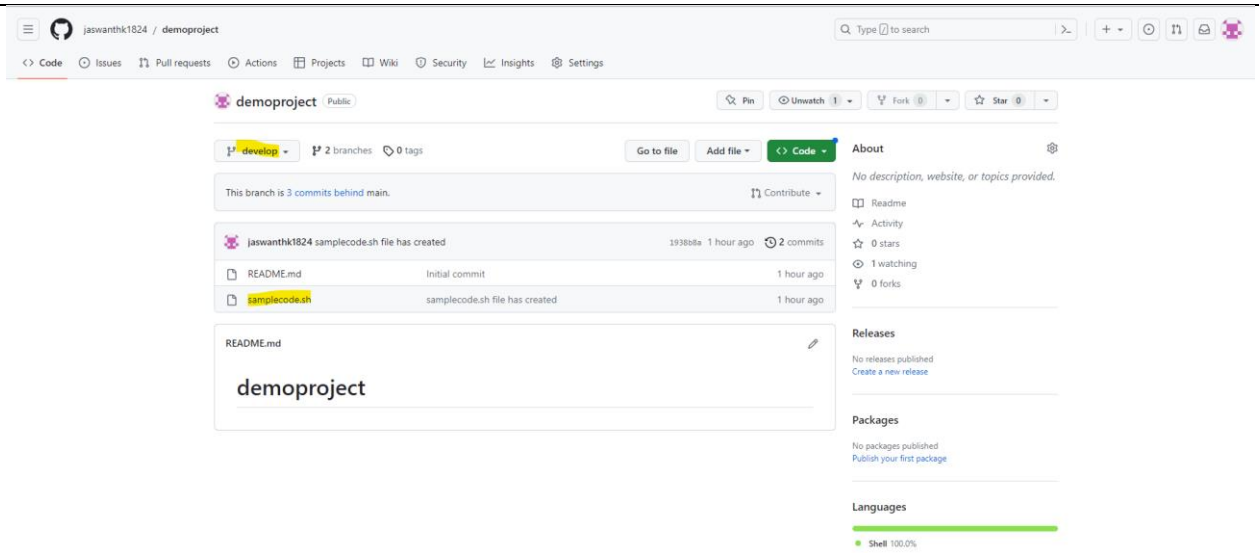
Editing an existing file

1.Go to develop branch in branches tab

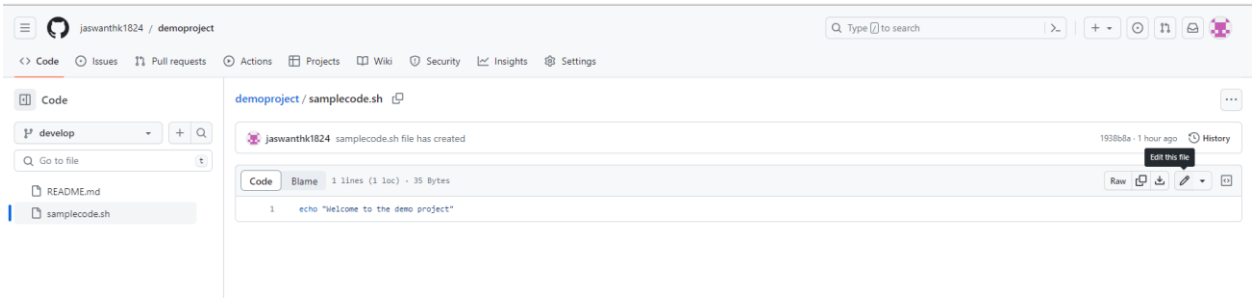


2.click on the **samplecode.sh** file

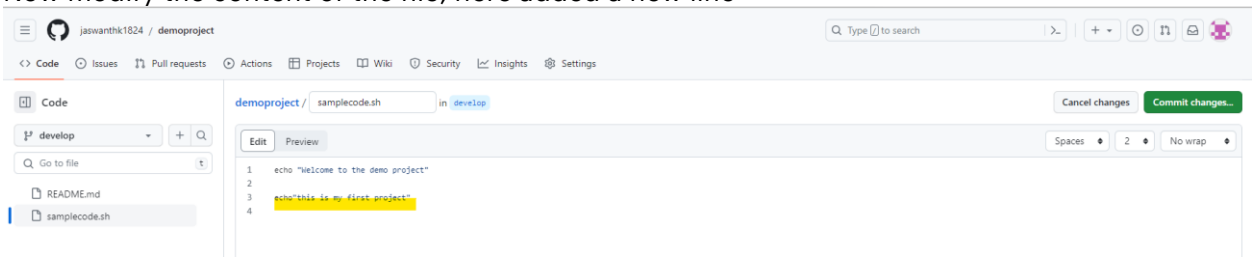
Copyright © 2023 Accenture. All Rights Reserved.



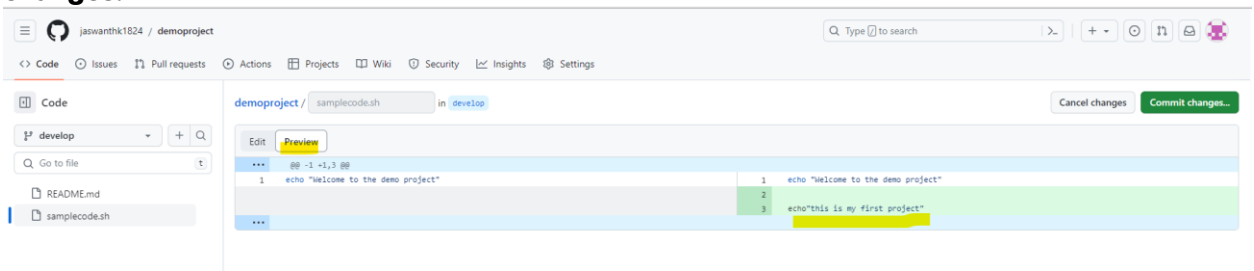
3.Edit the file content in the **Edit file** tab



Now modify the content of the file, here added a new line

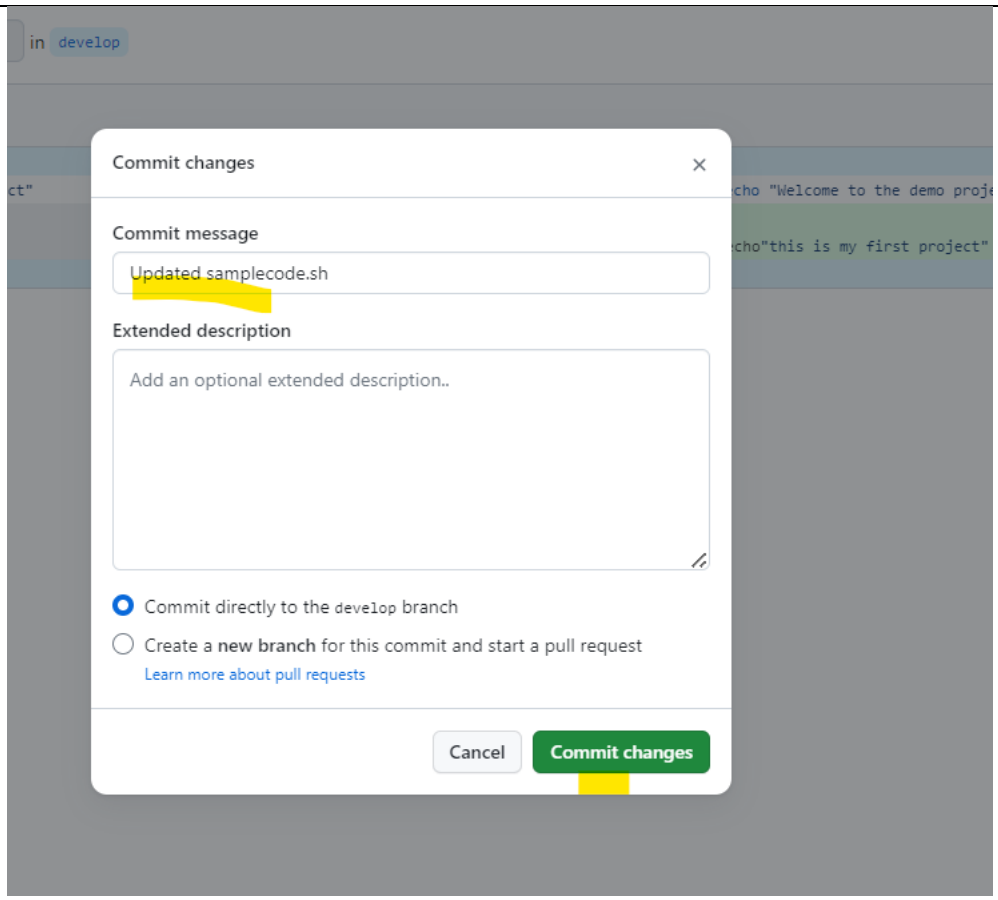


4.Click on **Preview** to view the changes. The new content will be displayed in Green, click on **commit changes.**

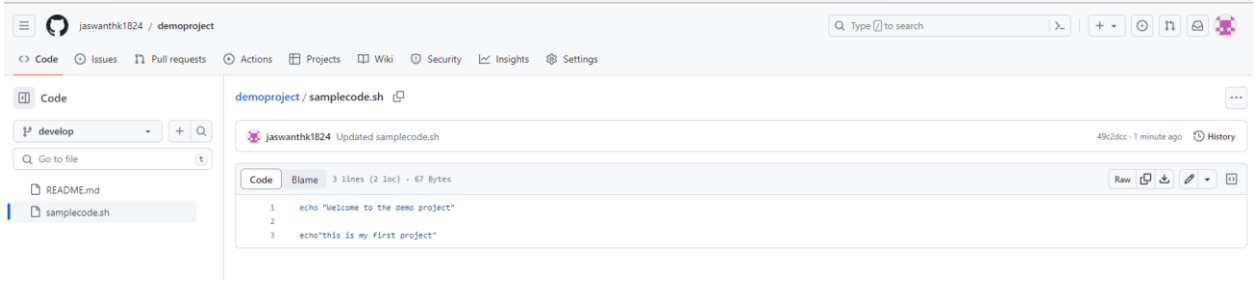


5.Give a meaningful comment when committing which explains the changes made to the file.

Copyright © 2023 Accenture. All Rights Reserved.



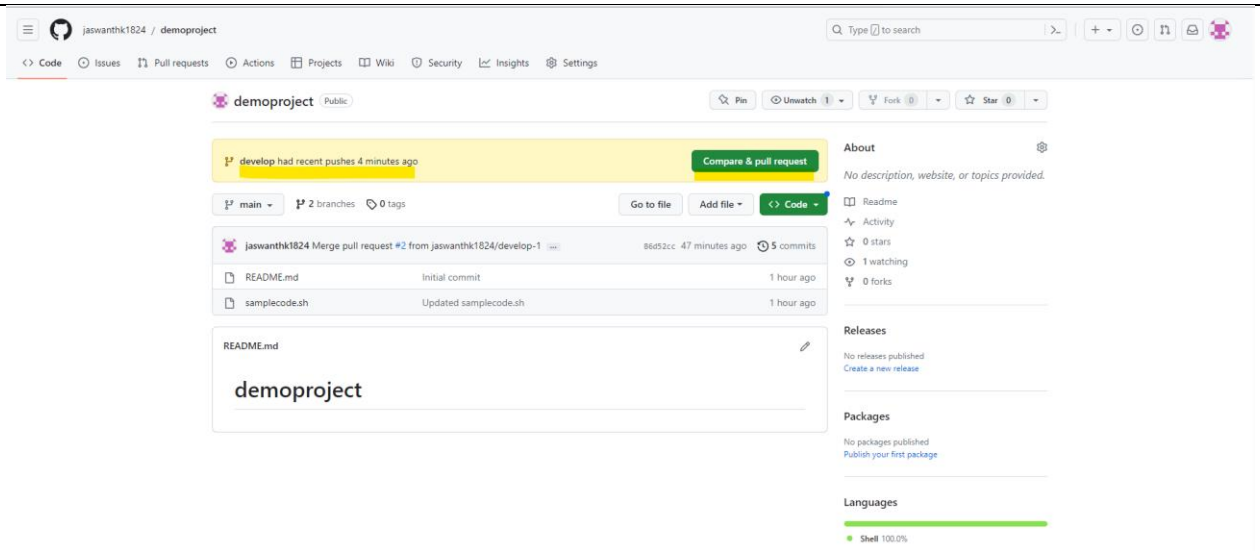
6.Click on **commit Changes**



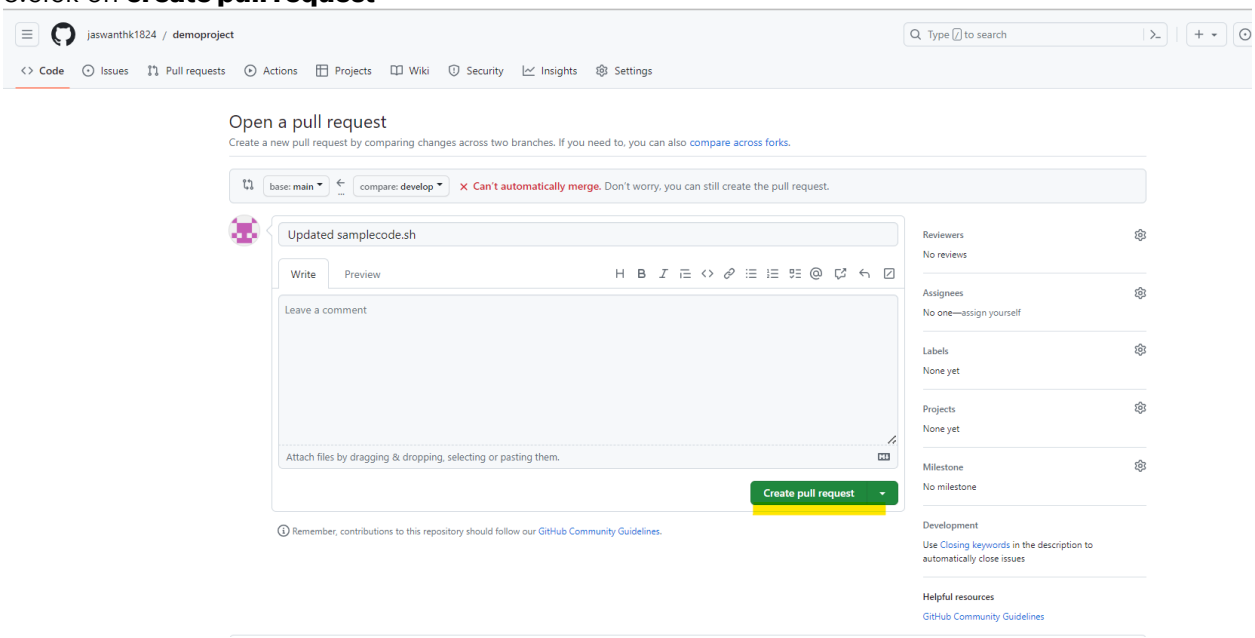
7.Navigate to main branch and **create pull request** to merge changes from develop branch into main branch

8.click on **compare & pull request** and confirm merge

Copyright © 2023 Accenture. All Rights Reserved.

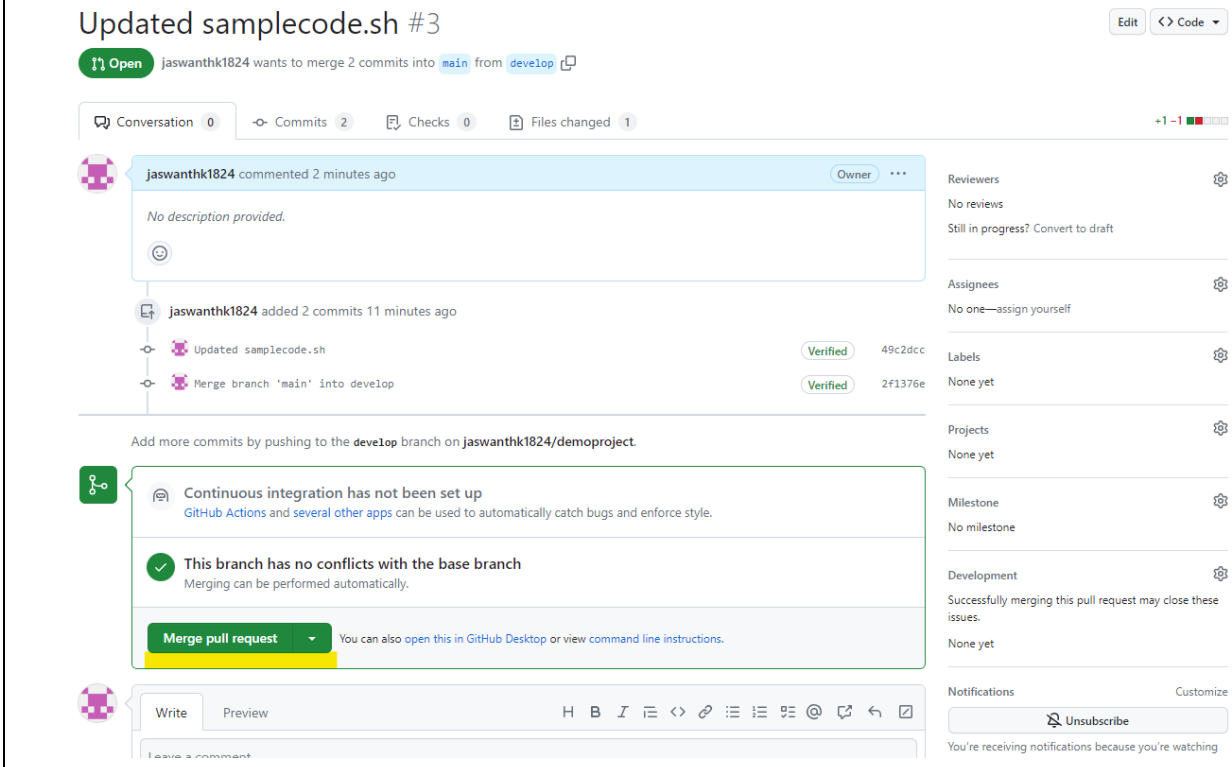


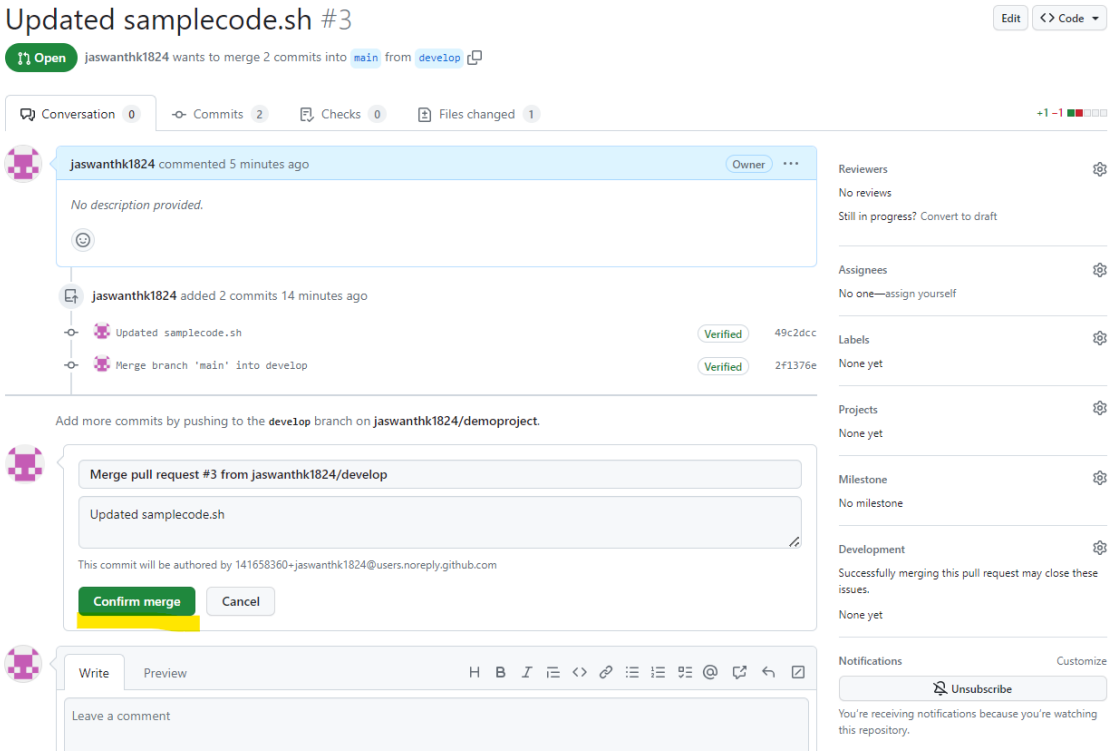
8.cick on **create pull request**



9.click on **merge pull request** and **confirm merge**

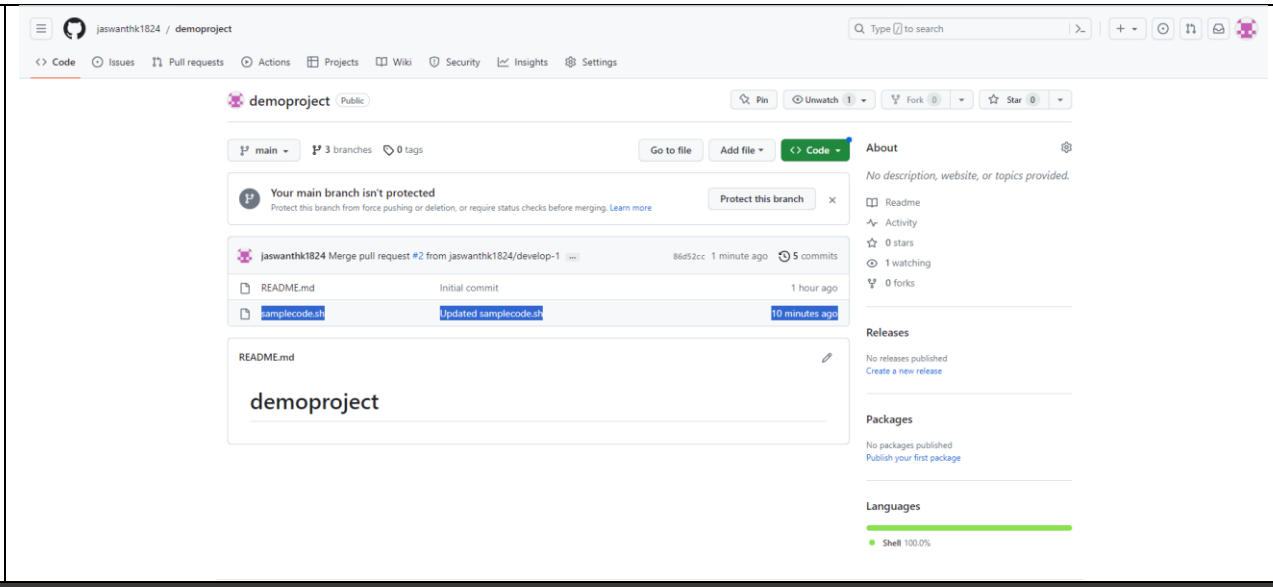
Copyright © 2023 Accenture. All Rights Reserved.





9. Now pull request is successfully merged and closed,
10. Navigate to main branch and click on file to see the updated content.

Copyright © 2023 Accenture. All Rights Reserved.



------- End of Exercise -------

Copyright © 2023 Accenture. All Rights Reserved.

Copyright © 2023 Accenture. All Rights Reserved.