#### Task -1

# Demonstration of some of the important commands used in Git.

# • git -version

This command is used to check the version of the git installed in our system.

```
C:\WINDOWS\system32\cmd.exe

E:\iNeuronProjectsCourse>git --version
git version 2.36.0.windows.1
```

# • git config

This command is used to list and setup the git configurations.

#### **>** git config −list

This command is used to list all the settings that git can find at that point.

```
×
C:\WINDOWS\system32\cmd.exe
                                                                                          ::\iNeuronProjectsCourse>git config --list
diff.astextplain.textconv=astextplain
filter.lfs.clean=git-lfs clean -- %f
filter.lfs.smudge=git-lfs smudge -- %f
filter.lfs.process=git-lfs filter-process
filter.lfs.required=true
http.sslbackend=openssl
http.sslcainfo=C:/Program Files/Git/mingw64/ssl/certs/ca-bundle.crt
core.autocrlf=true
core.fscache=true
core.symlinks=false
core.editor="C:\\Program Files\\Notepad++\\notepad++.exe" -multiInst -notabbar -nosession
noPlugin
pull.rebase=false
redential.helper=manager-core
credential.https://dev.azure.com.usehttppath=true
init.defaultbranch=master
user.email=abhigowdainduvalu@gmail.com
user.name=AbhiGowdaindia
```

# > git config -global user.name

This command is used to view the configured username.

```
C:\WINDOWS\system32\cmd.exe

E:\iNeuronProjectsCourse>git config --global user.name

AbhiGowdaIndia
```

#### > git config -global user.email

This command is used to view the configured user mail Id.

```
C:\WINDOWS\system32\cmd.exe

E:\iNeuronProjectsCourse>git config --global user.email
abhigowdainduvalu@gmail.com
```

# • git init

This command is used to make the current directory or repository as a git repository and it will create a ".git" folder inside the current working directory.

```
C:\WINDOWS\system32\cmd.exe

E:\iNeuronProjectsCourse>git init

Initialized empty Git repository in E:/iNeuronProjectsCourse/.git/
```

# • git status

This command is used to display the state of the repository and staging area. It allows us to see the tracked, untracked files and changes.

```
E:\iNeuronProjectsCourse>git status

On branch master

No commits yet

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

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

# • git add

This command is used to add file(s) to the staging area to track the file(s).

C:\WINDOWS\system32\cmd.exe

```
E:\iNeuronProjectsCourse>git add fruits.txt

E:\iNeuronProjectsCourse>git status
On branch master

No commits yet

Changes to be committed:
   (use "git rm --cached <file>..." to unstage)
        new file: fruits.txt

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

#### > git add.

This command is used to add all the files available in the repository.

C:\WINDOWS\system32\cmd.exe

E:\iNeuronProjectsCourse>git add .

E:\iNeuronProjectsCourse>git status
On branch master

No commits yet

Changes to be committed:
 (use "git rm --cached <file>..." to unstage)
 new file: animals.txt

# • git commit

This command is used to record the changes in the repository. Every commit contains the index data and the commit message. Commits are the snapshots of the project.

E:\iNeuronProjectsCourse>git commit -m "This is the first commit"
[master (root-commit) e98577d] This is the first commit
2 files changed, 9 insertions(+)
create mode 100644 animals.txt
create mode 100644 fruits.txt

# • git remote add [origin][url]

This command is used to add remote, the term remote is concerned with the remote repository. Here, the origin will be the short name for the remote and url will be the url for the remote repository which we want to add.

C:\WINDOWS\system32\cmd.exe

E:\iNeuronProjectsCourse>git remote add origin https://github.com/AbhiGowdaIndia/iNeuronProjectsCourse.git

# • git remote –v

This command is used to view all the remote repositories which are added.

C:\WINDOWS\system32\cmd.exe

```
E:\iNeuronProjectsCourse>git remote -v
origin https://github.com/AbhiGowdaIndia/iNeuronProjectsCourse.git (fetch)
origin https://github.com/AbhiGowdaIndia/iNeuronProjectsCourse.git (push)
```

# • git branch –M main

This command is used to set the current branch as main branch.

C:\WINDOWS\system32\cmd.exe

```
E:\iNeuronProjectsCourse>git branch
* master

E:\iNeuronProjectsCourse>git branch -M main

E:\iNeuronProjectsCourse>git branch
* main
```

# • git push

This command is used to push all the changes committed to the specified remote repository and to the specified branch.

```
E:\iNeuronProjectsCourse>git push -u origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (4/4), 326 bytes | 46.00 KiB/s, done.
Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/AbhiGowdaIndia/iNeuronProjectsCourse.git
* [new branch] main -> main
branch 'main' set up to track 'origin/main'.
```

# • git branch [branch name]

This command is used to create a branch with specified name.

git branch or git branch —list are used to list all the branches.

```
C:\WINDOWS\system32\cmd.exe

E:\iNeuronProjectsCourse>git branch
* main

E:\iNeuronProjectsCourse>git branch Developer1

E:\iNeuronProjectsCourse>git branch
    Developer1

* main

E:\iNeuronProjectsCourse>git branch --list
    Developer1

* main
```

# • git checkout [branch name]

This command is used to switch from one branch to another branch.

```
C:\WINDOWS\system32\cmd.exe
```

```
E:\iNeuronProjectsCourse>git branch
    Developer1
* main

E:\iNeuronProjectsCourse>git checkout Developer1
Switched to branch 'Developer1'

E:\iNeuronProjectsCourse>git branch
* Developer1
main
```

# • git checkout -b [branch name]

This command is used to create a new branch with specified name and switch to that branch at the same time.

```
E:\iNeuronProjectsCourse>git branch

* Developer1
    main

E:\iNeuronProjectsCourse>git checkout -b Developer2

Switched to a new branch 'Developer2'

E:\iNeuronProjectsCourse>git branch
    Developer1

* Developer1

* Developer2

main
```

# • git branch -d [branch name]

This command is used to delete the specified branch which is already created.

C:\WINDOWS\system32\cmd.exe

```
E:\iNeuronProjectsCourse>git branch -d Developer2
Deleted branch Developer2 (was e98577d).
E:\iNeuronProjectsCourse>git branch
    Developer1
* main
```

# git remote remove or git remote rm

This command is used to remove the specified remote repository.

C:\WINDOWS\system32\cmd.exe

```
E:\iNeuronProjectsCourse>git remote -v
origin https://github.com/AbhiGowdaIndia/iNeuronProjectsCourse.git (fetch)
origin https://github.com/AbhiGowdaIndia/iNeuronProjectsCourse.git (push)

E:\iNeuronProjectsCourse>git remote remove origin

E:\iNeuronProjectsCourse>git remote -v

E:\iNeuronProjectsCourse>
```

# • git log

It is a utility tool to review and read a history of everything that happens to a repository. Generally, git log is a record of commits. A git log contains commit hash, commit author metadata, commit date metadata and commit message.

C:\WINDOWS\system32\cmd.exe

```
E:\iNeuronProjectsCourse>git log
commit e98577d5dfd735fcfbfa335117624658d8aff561 (HEAD -> main, Developer1)
Author: AbhiGowdaIndia <abhigowdainduvalu@gmail.com>
Date: Tue Oct 4 11:24:20 2022 +0530

This is the first commit
```

# git log –oneline

The **–oneline** option is used to display the output as one commit per line.

```
E:\iNeuronProjectsCourse>git log --oneline
f38839f (HEAD -> main) animals.txt file is changes and saved.
e98577d (Developer1) This is the first commit
```

# • git log –stat

Generally, stat option is used to display the modified files, number of lines that have been added or removed, a summary lines of the total number of records changes and the lines that have been added or removed.

```
E:\iNeuronProjectsCourse>git log --stat
commit f38839f0a7bdb366781b65ceec293440ff9b6c5d (HEAD -> main)
Author: AbhiGowdaIndia <abhigowdainduvalu@gmail.com>
Date: Tue Oct 4 12:27:06 2022 +0530

animals.txt file is changes and saved.

animals.txt | 3 +--
1 file changed, 1 insertion(+), 2 deletions(-)

commit e98577d5dfd735fcfbfa335117624658d8aff561 (Developer1)
Author: AbhiGowdaIndia <abhigowdainduvalu@gmail.com>
Date: Tue Oct 4 11:24:20 2022 +0530

This is the first commit

animals.txt | 5 +++++
fruits.txt | 4 +++++
2 files changed, 9 insertions(+)
```

# • git log –patch or git log –p

This command displays the files that have been modified. It also shows the location of the added, removed and updated lines.

```
C:\WINDOWS\system32\cmd.exe - git log --patch
```

```
<u> 10ff9b6c5d (HEAD -> main)</u>
Author: AbhiGowdaIndia <abhigowdainduvalu@gmail.com>
Date: Tue Oct 4 12:27:06 2022 +0530
   animals.txt file is changes and saved.
diff --git a/animals.txt b/animals.txt
index c815376..f5c0136 100644
--- a/animals.txt
+++ b/animals.txt
# Animals
Lion
Tiger
 No newline at end of file
 No newline at end of file
 ommit e98577d5dfd735fcfbfa335117624658d8aff561 (Developer1)
Author: AbhiGowdaIndia <abhigowdainduvalu@gmail.com>
Date: Tue Oct 4 11:24:20 2022 +0530
   This is the first commit
diff --git a/animals.txt b/animals.txt
new file mode 100644
index 0000000..c815376
```

# • <u>git log <-n></u>

This command is used to limit the number of output commits. This command will displays the specified number of most recent commits.

#### C:\WINDOWS\system32\cmd.exe

```
E:\iNeuronProjectsCourse>git log --oneline
9dafb25 (HEAD -> main) Changes made to fruits.txt
f38839f animals.txt file is changes and saved.
e98577d (Developer1) This is the first commit

E:\iNeuronProjectsCourse>git log -2
commit 9dafb255d1e1c2ed16afef082e53b408f6ad6299 (HEAD -> main)
Author: AbhiGowdaIndia <abhigowdainduvalu@gmail.com>
Date: Tue Oct 4 12:38:06 2022 +0530

Changes made to fruits.txt

commit f38839f0a7bdb366781b65ceec293440ff9b6c5d
Author: AbhiGowdaIndia <abhigowdainduvalu@gmail.com>
Date: Tue Oct 4 12:27:06 2022 +0530

animals.txt file is changes and saved.
```

#### git log --grep

This command is used to filter the history or show the history based on the commit message.

#### C:\WINDOWS\system32\cmd.exe

```
E:\iNeuronProjectsCourse>git log --grep="first commit"

commit e98577d5dfd735fcfbfa335117624658d8aff561 (Developer1)

Author: AbhiGowdaIndia <abhigowdainduvalu@gmail.com>

Date: Tue Oct 4 11:24:20 2022 +0530

This is the first commit
```

# • git diff

This command is used to track the changes that have not been staged. Usually this command will compare the file(s) in local area with the file(s) in the staging area.

```
E:\iNeuronProjectsCourse>git diff
diff --git a/animals.txt b/animals.txt
index f5c0136..7b7012b 100644
--- a/animals.txt
+++ b/animals.txt
00 -1,4 +1,5 00
# Animals
Lion
Tiger
-Snake
\ No newline at end of file
+Snake
+Dog
\ No newline at end of file
```

# • git diff -staged or git diff -cached

This command is used to track the changes that are staged but not committed. Usually this **–staged** option will compare the file(s) in staging are with the files in commit area.

# E:\iNeuronProjectsCourse>git diff --staged E:\iNeuronProjectsCourse>git add . E:\iNeuronProjectsCourse>git diff --staged diff --git a/animals.txt b/animals.txt index f5c0136..7b7012b 100644 --- a/animals.txt +++ b/animals.txt 00 -1,4 +1,5 00 # Animals Lion Tiger -Snake \text{No newline at end of file} \text{No newline at end of file}

#### • git merge

This command facilitate us to take the data created by git branch and integrate them into single branch.

Git merge command is used to merge branches.

C:\WINDOWS\system32\cmd.exe

```
E:\iNeuronProjectsCourse>git merge developer1

Updating 260d178..b3b9404

Fast-forward

fruits.txt | 2 ++

1 file changed, 2 insertions(+)

E:\iNeuronProjectsCourse>
```

# • git show [commit\_id]

This command is used to get the details of the particular commit using commit\_id.

```
E:\iNeuronProjectsCourse>git show b3b9404ea

commit b3b9404ea864fd095cccce5741753d9b66f6fe41 (HEAD -> main, developer1)

Author: AbhiGowdaIndia <abhigowdainduvalu@gmail.com>
Date: Tue Oct 4 13:35:53 2022 +0530

The changes is done by developer1

diff --git a/fruits.txt b/fruits.txt
index afd82eb..761803a 100644
--- a/fruits.txt
+++ b/fruits.txt

00 -2,4 +2,6 00

Mango
Banana
Apple
+Grapes
+Guava
```

# • git show HEAD~<n>

This command is used to get the details of the commit based on the head. Example, one commit before the last commit.

C:\WINDOWS\system32\cmd.exe E:\iNeuronProjectsCourse>git log --oneline b3b9404 (HEAD -> main, developer1) The changes is done by developer1 60d178 changes in main beb478 two fruits added by Developer1 Odafb25 Changes made to fruits.txt F38839f animals.txt file is changes and saved. 298577d This is the first commit E:\iNeuronProjectsCourse>git show HEAD~1 0eb92fd491271edff4018a0dada Merge: 9dafb25 cbeb478 Author: AbhiGowdaIndia <abhigowdainduvalu@gmail.com> Date: Tue Oct 4 13:33:37 2022 +0530 changes in main diff --cc fruits.txt index 2400eec,97fff4f..afd82eb --- a/fruits.txt +++ b/fruits.txt # Fruits

# • git branch -m [old branch name] [ new branch name]

This command is used to change the name of the branch in local repository or local machine.

```
C:\WINDOWS\system32\cmd.exe

E:\iNeuronProjectsCourse>git branch
   developer1
* main

E:\iNeuronProjectsCourse>git branch -m developer1 DeveloperA

E:\iNeuronProjectsCourse>git branch
   DeveloperA

* main
```

#### Task -1

#### Start an open-source project and Host GitHub Pages using settings

• Creating a directory in the format which is required for the project and initialize it as a git repository.

```
C:\WINDOWS\system32\cmd.exe
  \Usars\ADIO\Deskton\mkdir
C:\Users\ADIO\Desktop\iNeuron-CropAdvisor>git init
[nitialized empty Git repository in C:/Users/ADIO/Desktop/iNeuron-CropAdvisor/.git/
:\Users\ADIO\Desktop\iNeuron-CropAdvisor>mkdir static
 :\Users\ADIO\Deskton\iNeuron-CronAdvisor>cd static
 :\Users\ADIO\Desktop\iNeuron-CropAdvisor\static>mkdir css
:\Users\ADIO\Desktop\iNeuron-CropAdvisor\static>mkdir images
:\Users\ADIO\Desktop\iNeuron CropAdvisor\static>cd ..
:\Users\ADIO\Desktop\iNeuron-CropAdvisor>git status
n branch master
No commits yet
Intracked files:
(use "git add <file>..." to include in what will be committed)
othing added to commit but untracked files present (use "git add" to track)
 :\Users\ADIO\Desktop\iNeuron CropAdvisor>git add .
:\Users\ADIO\Desktop\iNeuron-CropAdvisor>git commit -m "Created README.md file"
master (root-commit) 2dec4c9] Created README.md file
1 file changed, 3 insertions(+)
Create mode 100644 README.md
 :\Users\ADIO\Desktop\iNeuron-CropAdvisor>git branch -M main
 \Users\ADIO\Desktop\iNeuron-CropAdvisor>git remote add origin https://github.com/AbhiGowdaIndia/iNeuron-CropAdvisor.git
 :\Users\ADIO\Desktop\iNeuron-CropAdvisor>git push -u crigin main
[new branch] main -> main
anch 'main' set up to track 'origin/main'
```

Adding CSS files for the project and created home page for the project.

```
C:\WINDOWS\system32\cmd.exe
 :\Users\ADIO\Desktop\iNeuron-CropAdvisor>git status
On branch main
Your branch is up to date with 'origin/main'.
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)
C:\Users\ADIO\Desktop\iNeuron-CropAdvisor>git add .
C:\Users\ADIO\Desktop\iNeuron-CropAdvisor>git commit -m "CSS files added."
 main 2bdccfb] CSS files added.
 4 files changed, 10665 insertions(+)
 create mode 100644 static/css/bootstrap.css
 create mode 100644 static/css/crop.css
 create mode 100644 static/css/font-awesome.min.css
 create mode 100644 static/css/style.css
 ::\Users\ADIO\Desktop\iNeuron-CropAdvisor>git push -u origin main
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 6 threads
Compressing objects: 100% (7/7), done.
Writing objects: 100% (8/8), 34.84 KiB | 4.98 MiB/s, done.
Total 8 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/AbhiGowdaIndia/iNeuron-CropAdvisor.git
   2dec4c9..2bdccfb main -> main
 ranch 'main' set up to track 'origin/main'.
```

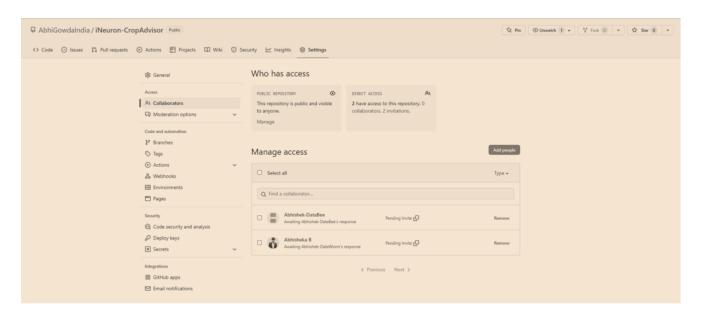
• Images used in the webpage are added.

```
C:\WINDOWS\system32\cmd.exe
C:\Users\ADIO\Desktop\iNeuron-CropAdvisor>git status
On branch main
Your branch is up to date with 'origin/main'.
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)
C:\Users\ADIO\Desktop\iNeuron-CropAdvisor>git add .
C:\Users\ADIO\Desktop\iNeuron-CropAdvisor>git commit -m "Images are added."
[main 3ff4fb1] Images are added.
7 files changed, 0 insertions(+), 0 deletions(-) create mode 100644 static/images/agriculture.jpg
create mode 100644 static/images/background_1.jpg
create mode 100644 static/images/home_1.jpg
create mode 100644 static/images/home_2.jpg
create mode 100644 static/images/home_3.jpg
create mode 100644 static/images/home_4.jpg
 create mode 100644 static/images/logo_3.jpg
C:\Users\ADIO\Desktop\iNeuron-CropAdvisor>git push -u origin main
Enumerating objects: 13, done.
Counting objects: 100% (13/13), done.
Delta compression using up to 6 threads
Compressing objects: 100% (11/11), done.
Writing objects: 100% (11/11), 14.62 MiB | 1.31 MiB/s, done.
Total 11 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/AbhiGowdaIndia/iNeuron-CropAdvisor.git
   2bdccfb..3ff4fb1 main -> main
branch 'main' set up to track 'origin/main'.
```

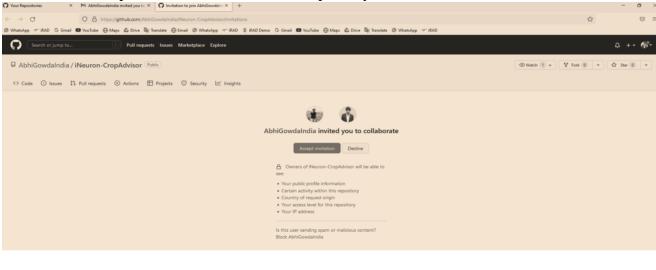
#### Home Page added.

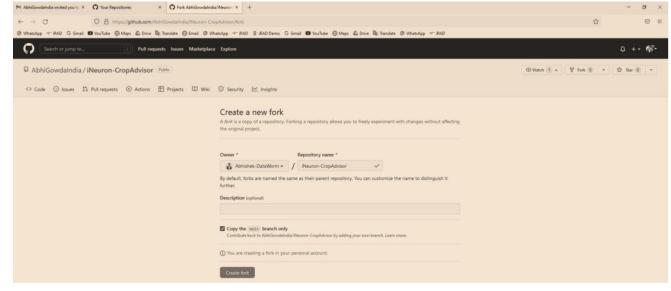
```
C:\WINDOWS\system32\cmd.exe
C:\Users\ADIO\Desktop\iNeuron-CropAdvisor>git status
On branch main
Your branch is up to date with 'origin/main'.
Untracked files:
  (use "git add <file>..." to include in what will be committed)
nothing added to commit but untracked files present (use "git add" to track)
C:\Users\ADIO\Desktop\iNeuron-CropAdvisor>git add home.html
C:\Users\ADIO\Desktop\iNeuron-CropAdvisor>git commit -m "Home page added for the project."
[main 36632e5] Home page added for the project.
 1 file changed, 172 insertions(+)
 create mode 100644 home.html
C:\Users\ADIO\Desktop\iNeuron-CropAdvisor>git push -u origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 6 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 2.35 KiB | 2.35 MiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/AbhiGowdaIndia/iNeuron-CropAdvisor.git
   3ff4fb1..36632e5 main -> main
branch 'main' set up to track 'origin/main'.
```

• Two collaborators are added and assigned task to task to create "about" page and "contactus" page.



Collaborators accept the invitation and fork the repository.

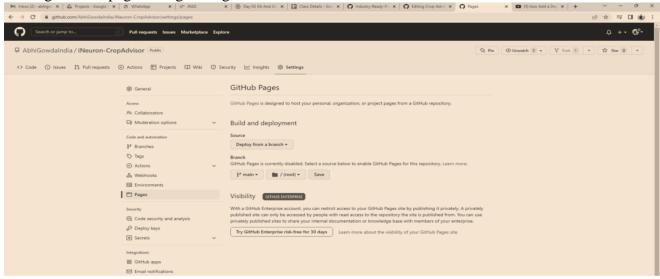




#### Consider two collaborators are Developer1 and Developer2

• Developer1 and Developer2 are clone the repository to create the local copy of the repository.

Hosting GitHub pages using settings.

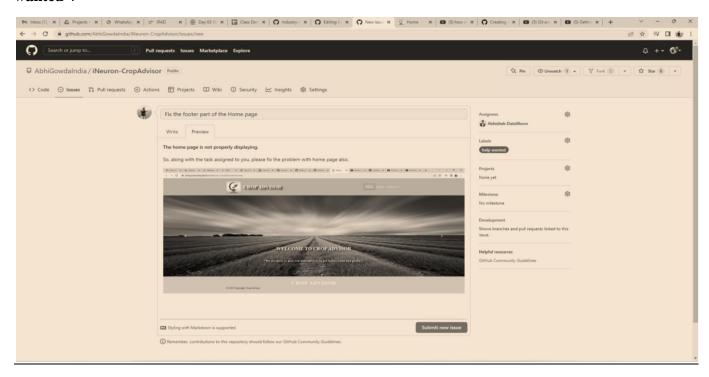


• Home page after hosting.

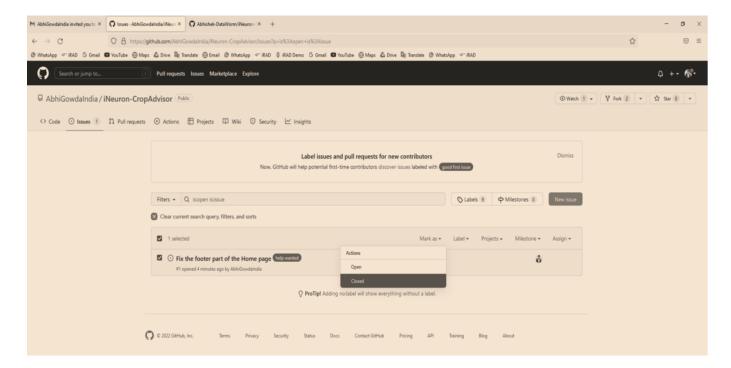


# Task - 3

• Creating an issue in GitHub repository and assigned it to one of the collaborator and labeled it as "help wanted".

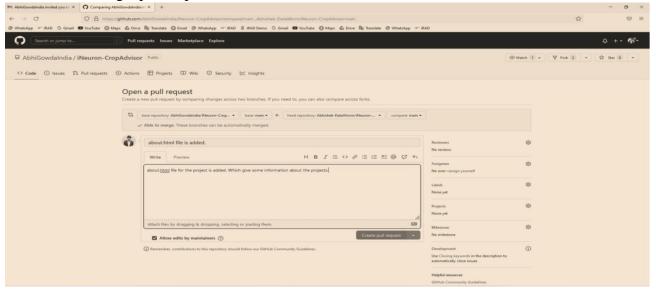


• Concerned collaborator fixing the problem and closing the issue as completed.

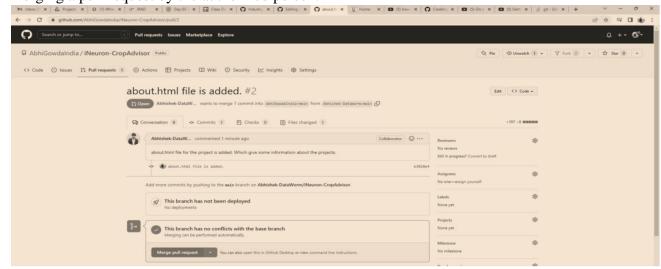


• Collaborator added "about.html" file and push the remote repository.

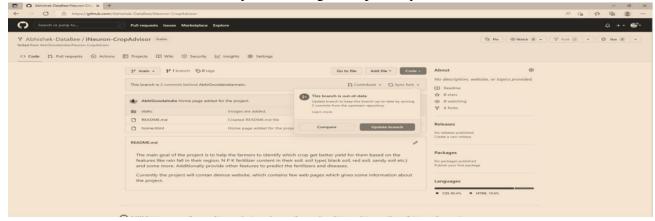
Collaborator rising a pull request.



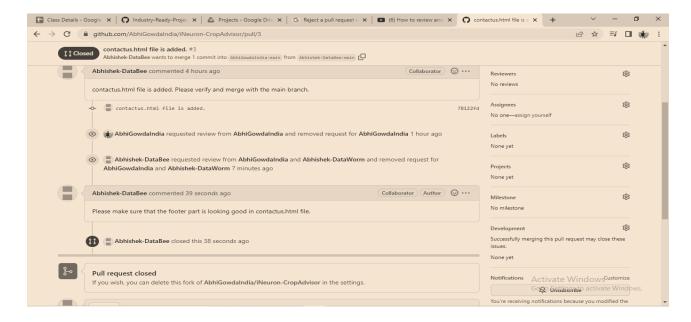
• Merging a pull request by the authorized person.



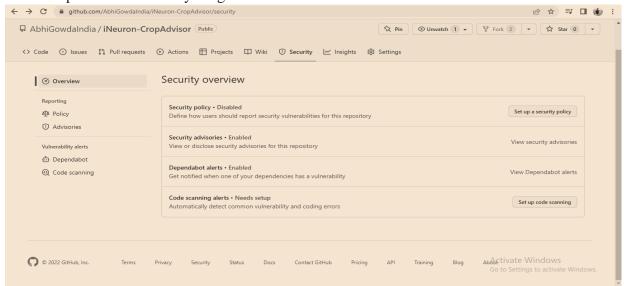
• As collaborator behind 2 commits, Synchronizing the repository



• Rejecting pull request from one of the collaborator with proper comments.

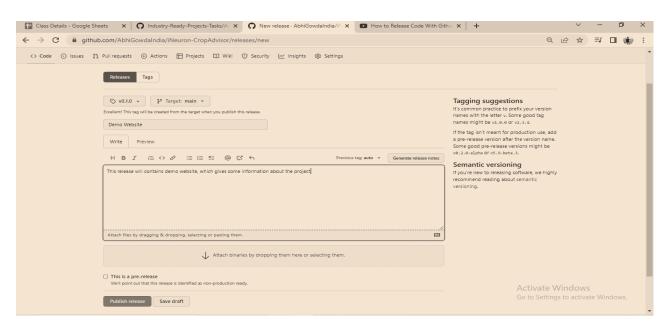


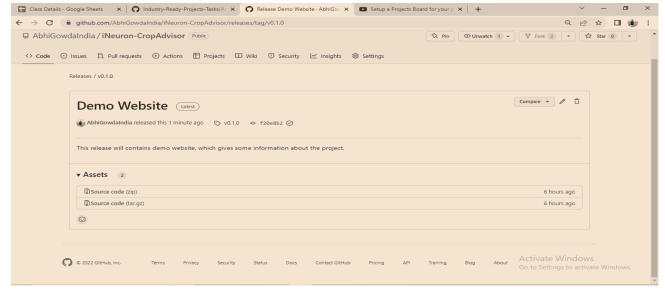
• Add a Dependabot alerts in your github.



Stash changes

Release of Demo version of the repository





• Creating project board for the repository.

