

# Experiment 01 - Version Control and Testing Lab

December 8, 2022

## Aim

Create a GitHub repository, clone a sample project and creation of branch.

## Theory

Basic Commands used in Git :

- Git clone - `git clone < https : //name - of - the - repository - link >`  
- Git clone is a command for downloading existing source code from a remote repository.
- Git branch - `gitbranch < branch - name >` - By using branches, several developers are able to work in parallel on the same project simultaneously.
- Git checkout - `gitcheckout < name - of - your - branch >` - To work in a branch, first you need to switch to it. We use git checkout mostly for switching from one branch to another.

## Results

The process starts by creating an account on GitHub. An authentic email is required to get started with process. I used my institutional email.

First step after creation of account is to create a repository. The figure 2 is creation of repository.

Figure 3 is details of the repository and figure 4 is successful repository creation.

Cloning a repository is the next step where figure 5 is where clone link can be generated. The figure 6 is where ***git clone*** command is used to directly clone the repository to system.

Branch creation and usage can be clearly seen in figure 7.

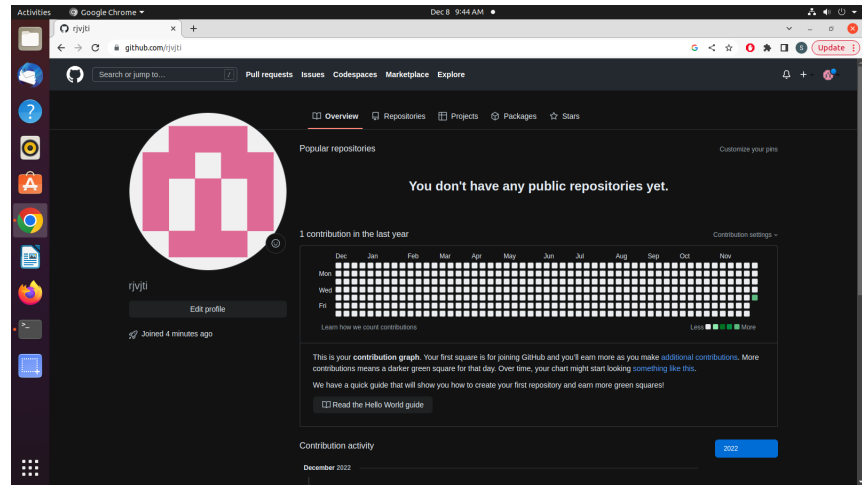


Figure 1: Creation of GitHub user account

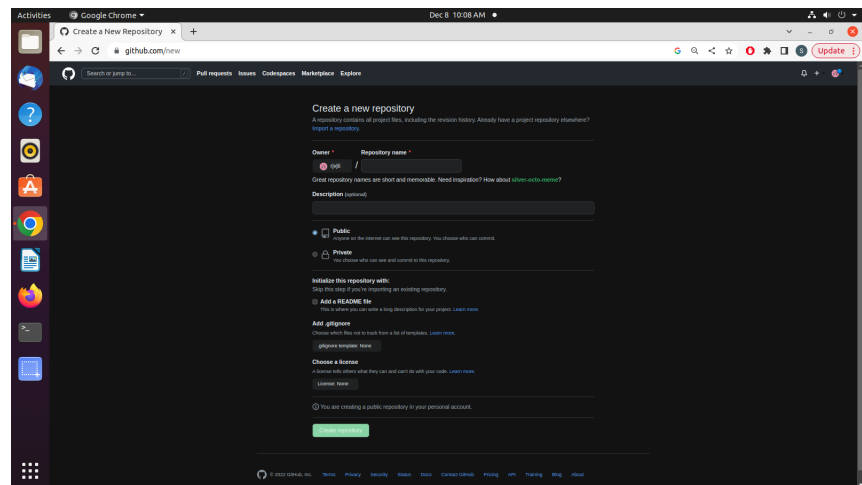


Figure 2: Repository Creation

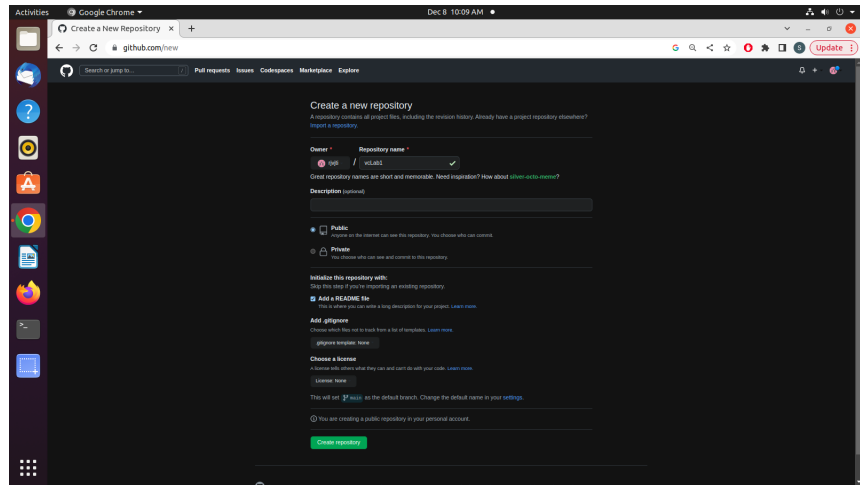


Figure 3: Setting required details for repository

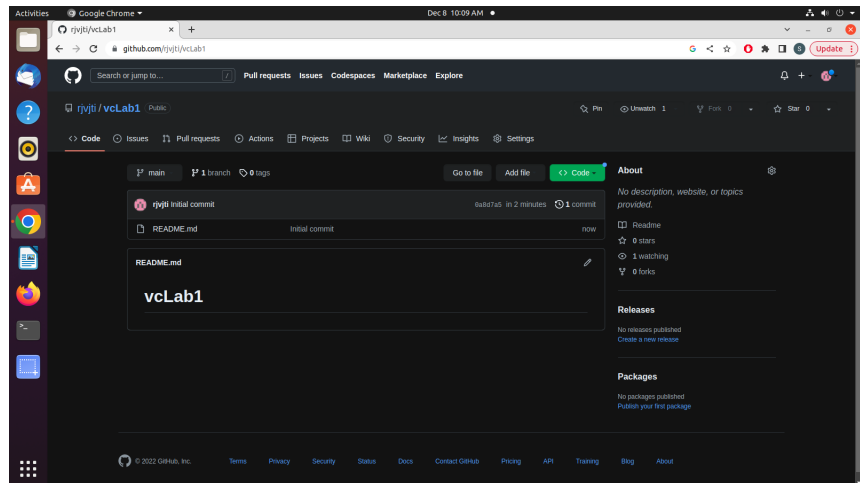


Figure 4: Successful Repository Creation

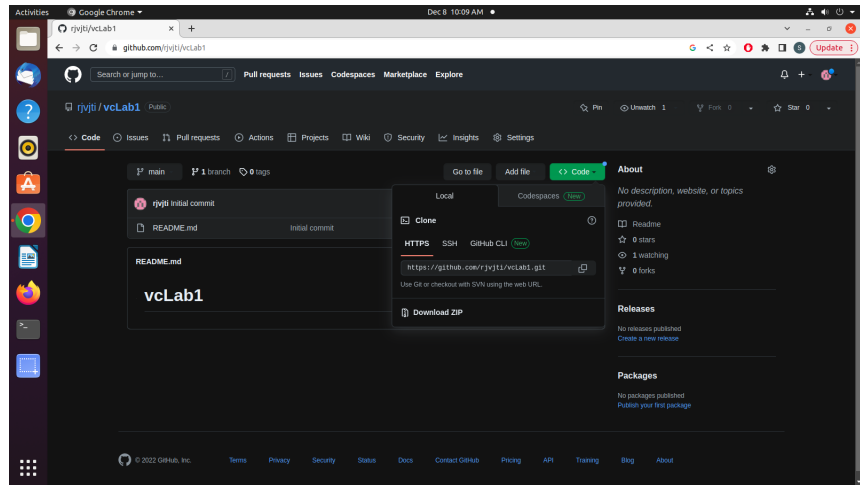


Figure 5: Cloning Repository

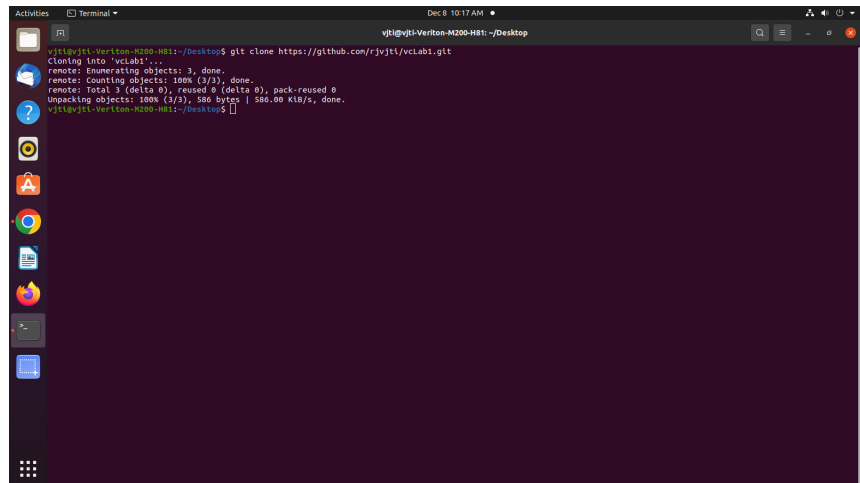
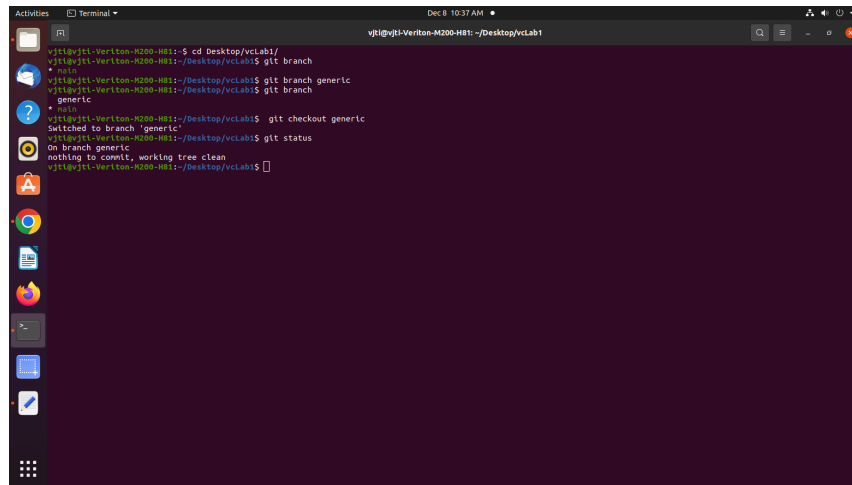


Figure 6: Using git clone

A terminal window titled 'Terminal' with a dark background and light text. The window shows a series of Git commands and their outputs. The user navigates to the directory ~/Desktop/vclab1/. The commands and outputs are as follows:

```
vjt@vjt1-Veriton-M200-H81:~$ cd Desktop/vclab1/
vjt@vjt1-Veriton-M200-H81:~/Desktop/vclab1$ git branch
* main
vjt@vjt1-Veriton-M200-H81:~/Desktop/vclab1$ git branch generic
vjt@vjt1-Veriton-M200-H81:~/Desktop/vclab1$ git branch
* main
  generic
vjt@vjt1-Veriton-M200-H81:~/Desktop/vclab1$ git checkout generic
Switched to branch 'generic'
vjt@vjt1-Veriton-M200-H81:~/Desktop/vclab1$ git status
On branch generic
nothing to commit, working tree clean
vjt@vjt1-Veriton-M200-H81:~/Desktop/vclab1$
```

Figure 7: Branch Creation

## Conclusion

In the following experiment and lab work the successful interpretation of basic commands used for creation, maintaining and cloning of repository using a branch seamlessly are done.