Github and Git <https://github.com/>

Github – Repository which provides common storage to store the projects.

Ecommerce  
 School Management

Developer3

Developer4

Developer2

Developer1

Developer -> takes the project from github, make changes in the code and send the changed code back to the github.(so it is up to date)

1. Each developer take(**clone**) the **complete project** from the github. Creating the copy of the complete project present in the github into our local system/laptop.
2. Each developer makes changes in the code. But the changes are present in the laptop or the system of the developer. It is not visible to everyone in the team.
3. So developer has to send (**push**) the changed code back to the github.

Git – version control system – which is used to perform different github operations.

Different operations :

1. Clone - Creating the copy of the **complete project** present in the github into our local system/laptop. git clone -b branchname <urlof project>
2. Make changes in the code – this changes will be in unstaged/ untracked/not confirmed area(by default).
3. Add – moving the code from unstaged area to staged area(confirmed stage). git add <filename complete path> or git add .
4. Commit – give proper message and commit it. It will generate a commit version id which will be unqiue.

Js23w34w,j3i9e3k,rked903,o388d3j4kd0,399jsjkw3,….

git commit -m”message for commit”

1. Push – sending/uploading the changed code back to the github. git push origin branchname.
2. Status – current status of the git project. git status
3. Pull – taking the **latest changes** from the github into our laptop.(in this scenario project is already cloned and we are just taking latest class files which are changed). git pull origin branchname.
4. Revert – it will revert/remove the changes that are done in particular commit id. git revert commit\_id
5. Branch – it will give the branch of the user. git branch

clone

Developer1  
master

Ecommerce  
master branch

push

clone

Incorrect code is sent to master branch and to everyone in the company

Makes changes in code but changes are incorrect.

push

Developer2  
master

Developer should make changes but he cannot push that change into master branch directly(as this affects other developers also).

Developer should create his own branch and send his code to his own branch and after that manager/seniors verifys and approves that code and merge it master branch.

Developer2

Developer2branch

Developer1branch

Developer1

Onlinrorder  
branch - master

Once senior approves it, Merges to master branch (done using pull request)

1. Creating our own project in our local system and sending back to github.
2. Create a new git repository in the github, copy the link and keep it.
3. Open intellij in which new project created and go to version control.
4. Create a new git repository and select the project which you have created.
5. Go to terminal and check **git status**
6. Go to commit tab and select the files.
7. Give the commit message.
8. Commit and push.
9. It will ask for the remote address, we have paste the link which was copied in step1.
10. Finally push it. (if you are connecting first time for github using intellij, it will ask username and password, you need to fill and push it).
11. Go to github and check it.
12. Already existing project in github, we have to clone it, make changes and push it back.
13. To clone project, make changes and push directly into the master branch(master branch is not protected)
14. Open intellij, go to file ->new -> project from version control.
15. It will open clone repository and ask for url.
16. Copy url from github project and paste it.
17. Go to the file location where we want to save project and create folder for new folder.
18. And add that folder path in directory.
19. Click on clone button.
20. After cloning project will import into intellij.
21. Go to terminal -> git status (it will show the status of the git)
22. Make changes in some classes. And check status again(it will show unstaged files which are modified)
23. Go to git and create git repository.
24. Select the changes file which you want to send to github.
25. Add proper commit message
26. Click on commit and push
27. And finally click on push
28. Now go and check in github, new changes along with new commit id will be added.
29. To clone project, make changes and push directly into different branch(master branch is protected – if we try to push to master branch it will not get pushed) and create pull request.
30. Open intellij, go to file ->new -> project from version control.
31. It will open clone repository and ask for url.
32. Copy url from github project and paste it.
33. Go to the file location where we want to save project and create folder for new folder.
34. And add that folder path in directory.
35. Click on clone button.
36. After cloning project will import into intellij.
37. Go to terminal -> git status (it will show the status of the git)
38. Go to git and create git repository. (close intellij and reopen again)
39. Click on master branch drop down and click on new branch
40. Give a name for new branch and new branch will be created.
41. Make changes in some classes. And check status again(it will show unstaged files which are modified)
42. Select the changes file which you want to send to github.
43. Add proper commit message
44. Click on commit and push
45. And finally click on push
46. Now go and check in github, new changes along with new commit id will be added.
47. Go to github and go to pull requests and click on new pull requests.
48. Select base as master and compare as your own branch.
49. Click on create pull request.
50. <https://github.com/chandan-chintu/collection-august2025/pull/1> send the pull request link to manager or seniors.
51. They review code and approves it and merges it.
52. Finally your code is merged into master branch.

If push is not working with authorization, we have to use cmd.

Go to terminal and type command **git push origin master**