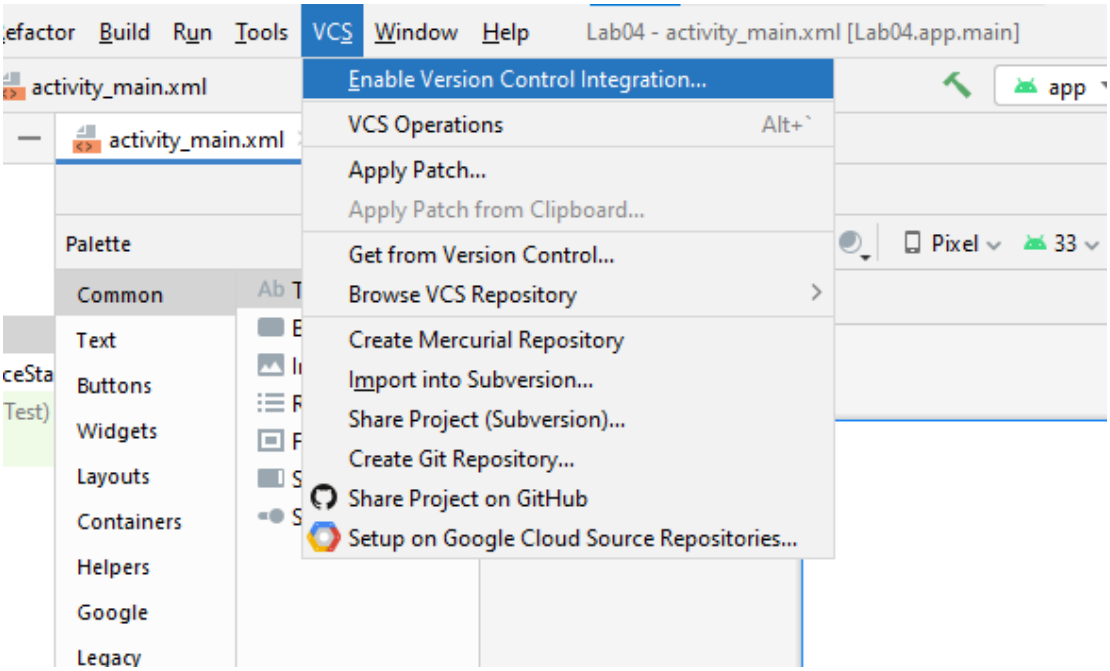
IT2010 – Mobile Application Development
BSc (Hons) in Information Technology
2nd Year
Faculty of Computing
SLIIT

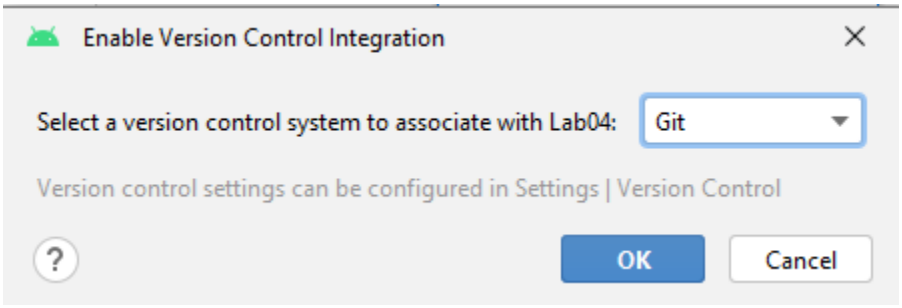
2023 – Lab 04

Version Controlling

Initializing Git and creating new branch

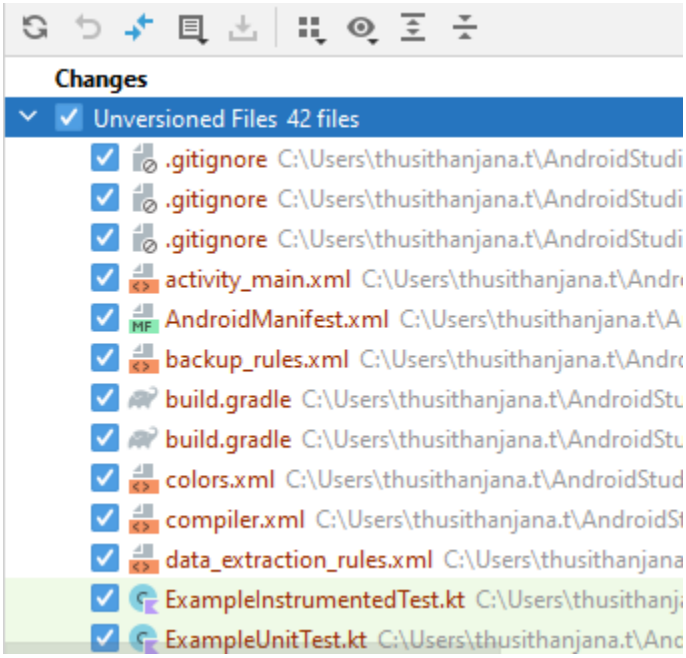
1. Enabling version control in Android studio





2. Select commit from the Left side panel

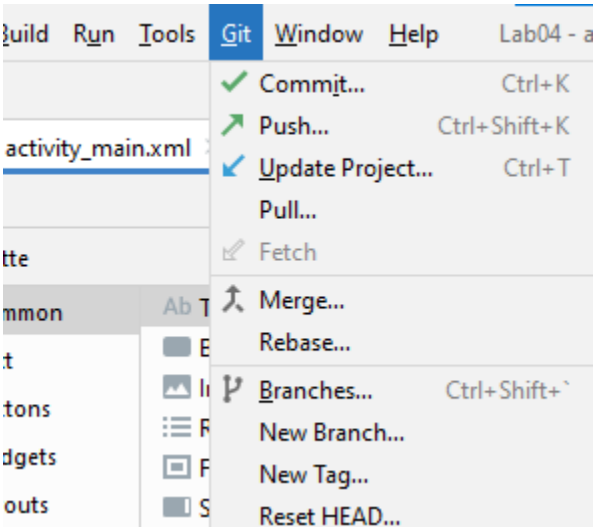
3. Click Unversioned Files



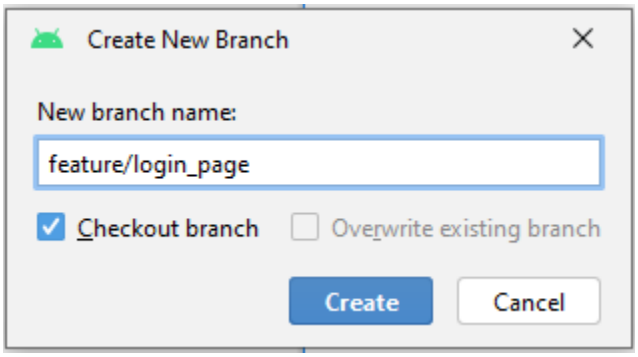
4. Add a proper commit message and click commit

5. There will be warnings. Click the button commit anyway

6. Click git and select new branch

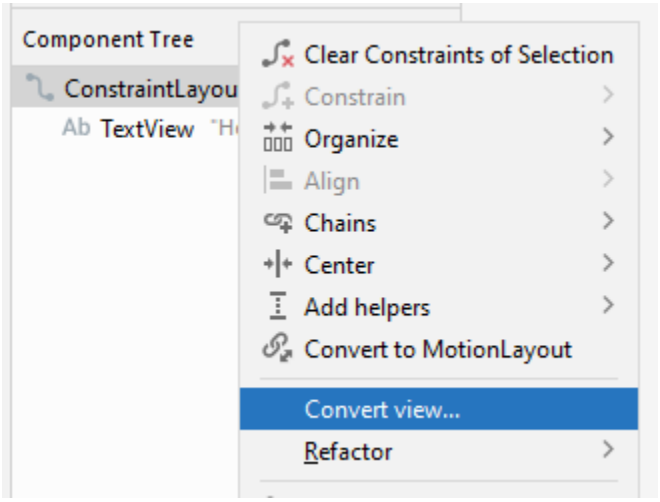


7. Create a branch named “feature/login_page”

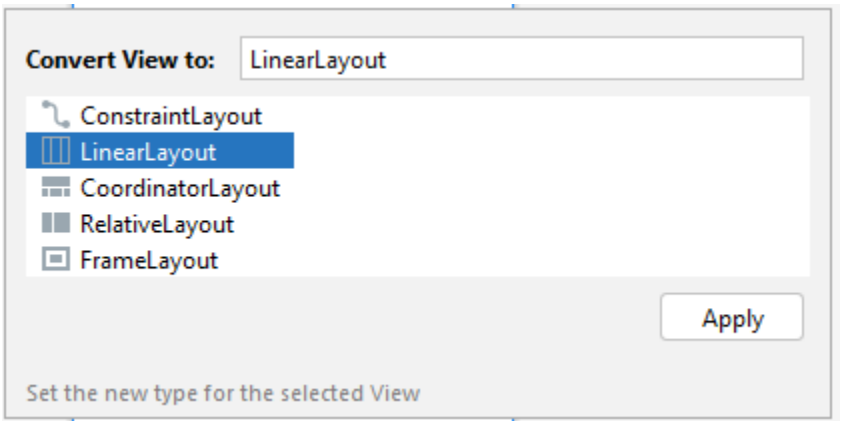


Introduction to Linear Layout

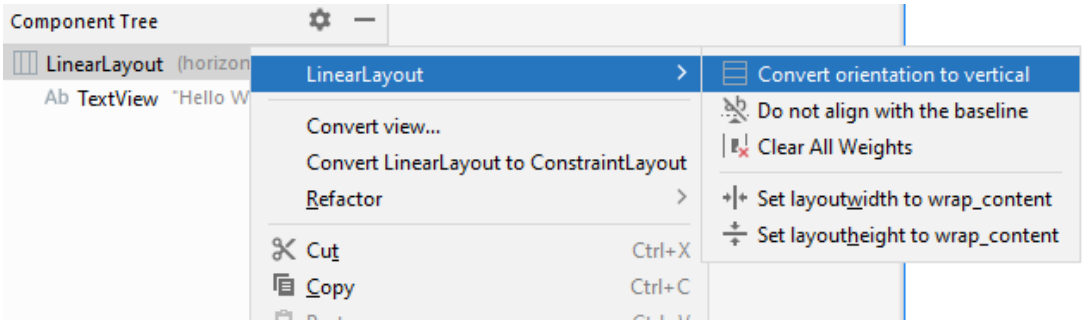
1. Right Click the Constraint layout from the component tree and select Convert View



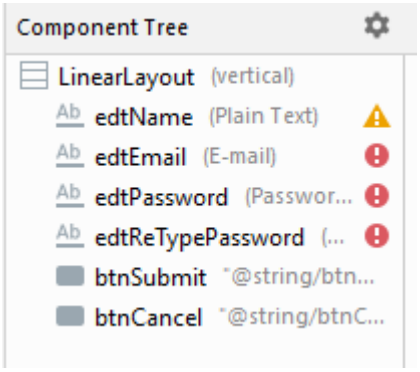
2. Then Select Linear Layout

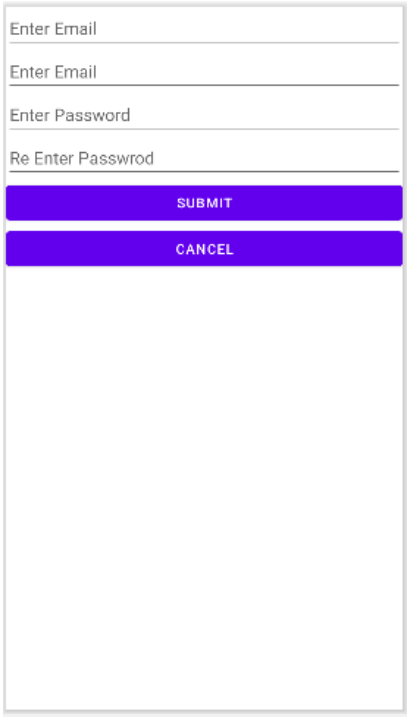


3. Convert the horizontal layout to vertical layout

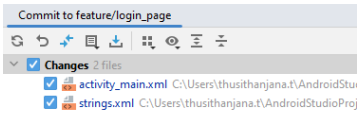


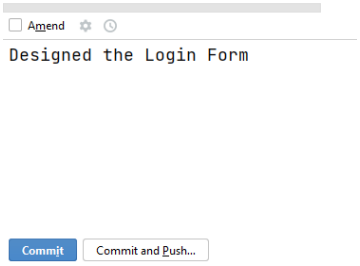
4. Design the following User interface
    a. Add each relevant component by dragging from the palette to the screen respectively
    b. Add all the necessary strings to the resources
    c. Properly id all the views





5. Select all the input fields and set the layout_height to 48dp
6. Select all the component and give 16dp margin (Top, Bottom, Left, Right)
7. Commit the changes to the repository





Introduction to GitHub

GitHub is a web-based platform that is primarily used for version control and collaborative software development. It provides a platform for hosting and sharing code repositories, as well as a range of tools and features for managing and collaborating on code projects.

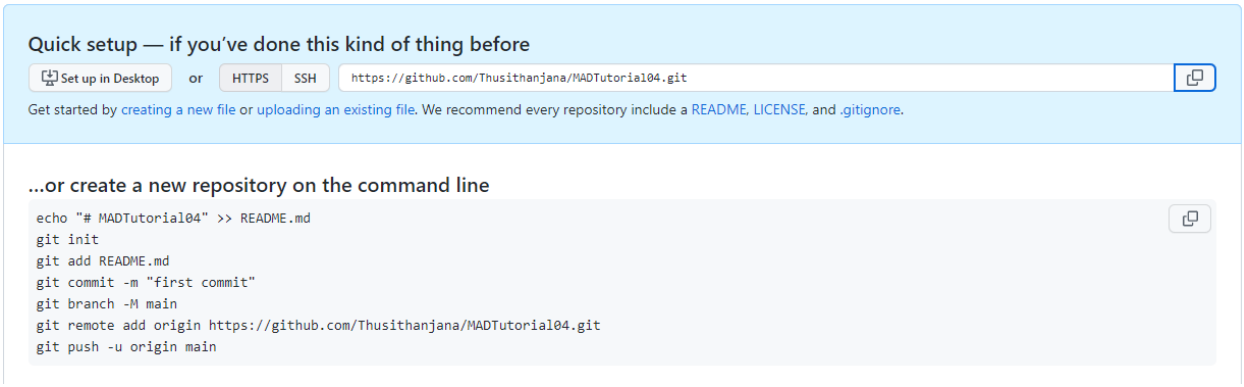
GitHub allows developers to create, fork, and contribute to open-source projects. It provides tools for code review, bug tracking, and documentation, and allows developers to work together on projects from anywhere in the world.

GitHub is also widely used for personal and professional projects, ranging from small personal projects to large-scale enterprise applications. It has become an important tool for developers to collaborate and share knowledge and is used by millions of developers and organizations around the world.

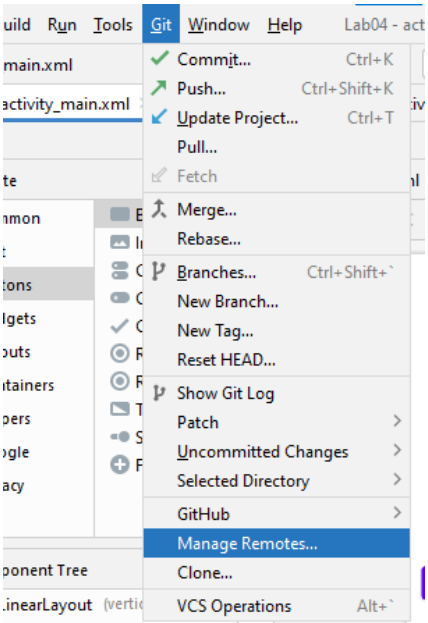
1. Create a GitHub account

[GitHub: Let’s build from here · GitHub]

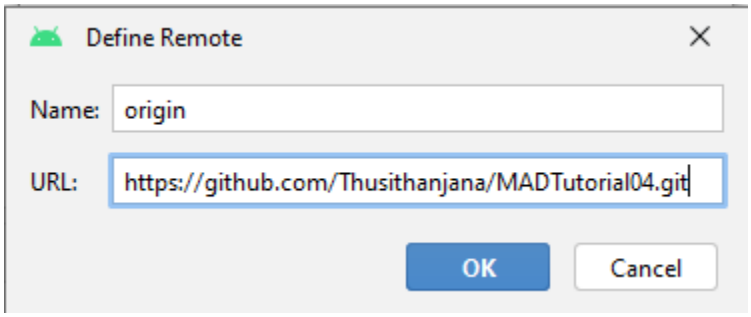
2. Create a new repository. Name it ‘MADTutorial04’
3. Make sure to keep the other fields empty
4. Copy the link for the GitHub repository



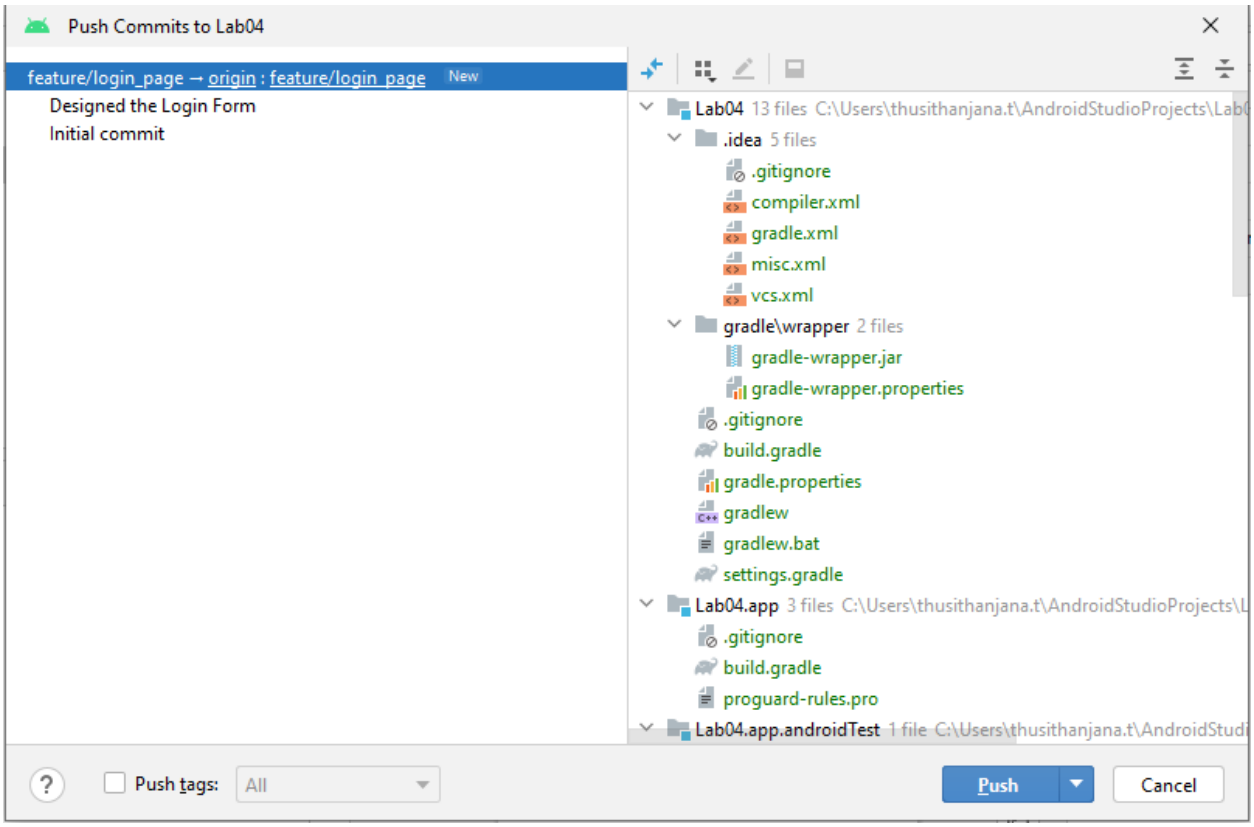
5. Come back to Android Studio. Select Git and click mange remotes



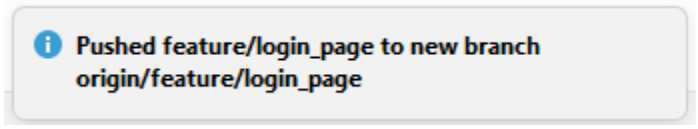
6. Click the + button and paste the link to the displayed dialog box. And click ok



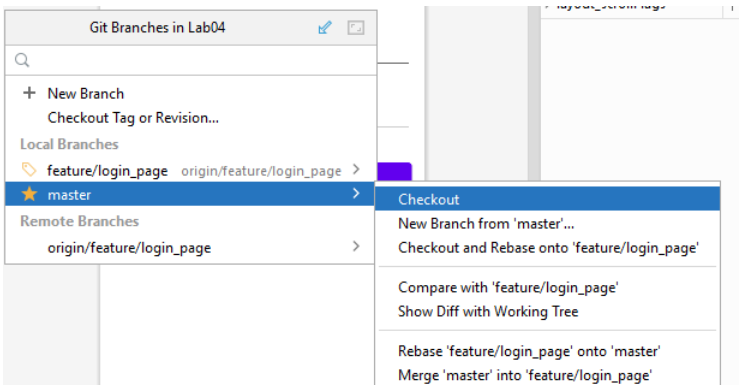
7. Then click git and select Push.
8. After that from the popped window click the push button.
9. For that you must login to GitHub from you PC. Provide the credentials for it.



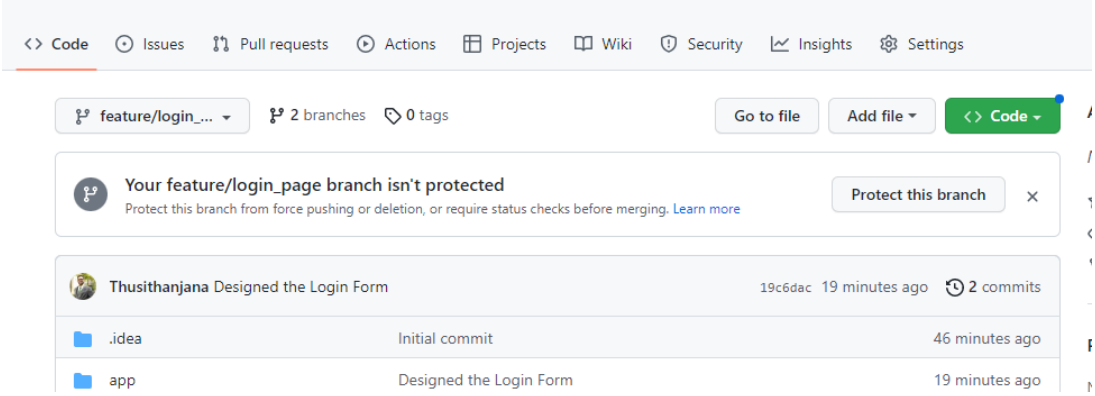
10. If the push is success following message will be displayed



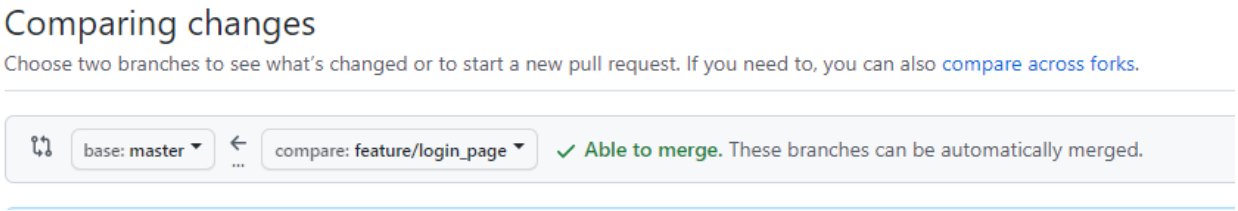
11. After that go to the GitHub repository and refresh the page
12. Go back to Android studio. Click Git and select Branches
13. Then select the master branch and click checkout



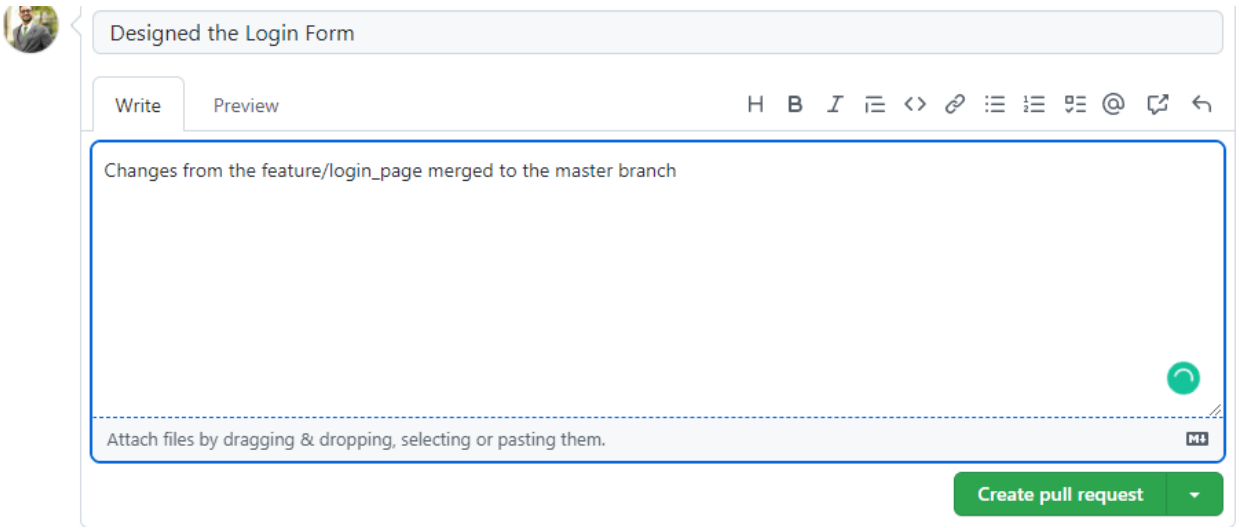
14. Then you can see the initial project. Push that to the GitHub as well
15. Refresh the GitHub page and you can see there are two branches.
16. From GitHub, select Pull Requests



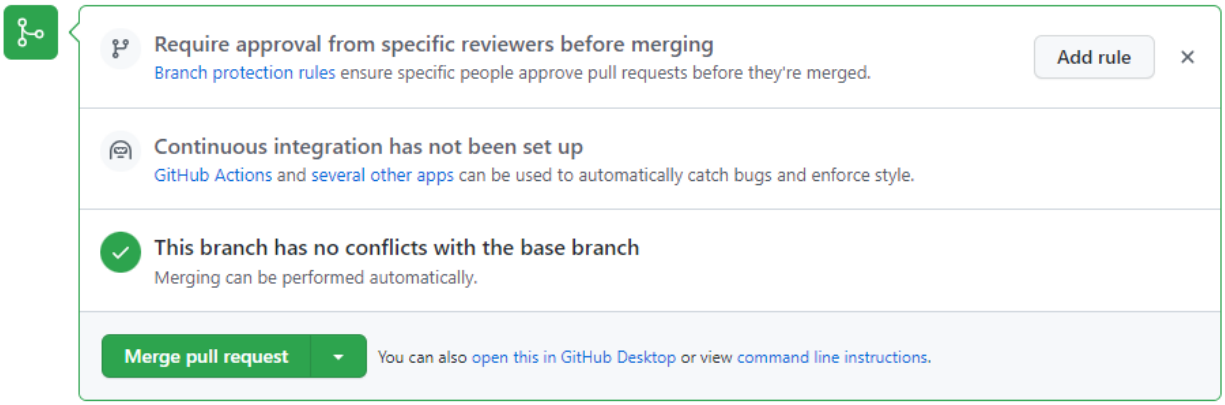
17. Click new pull request.
18. Select the branches as follows



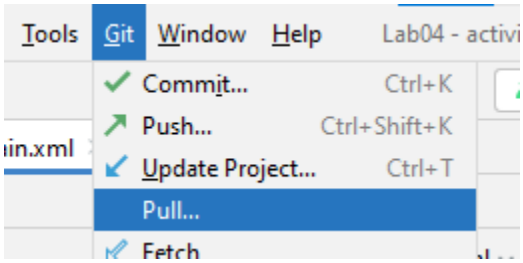
19. And Click Create Pull Request
20. Then add a proper comment and click create pull request



21. Then click Merge Pull Request. And then confirm



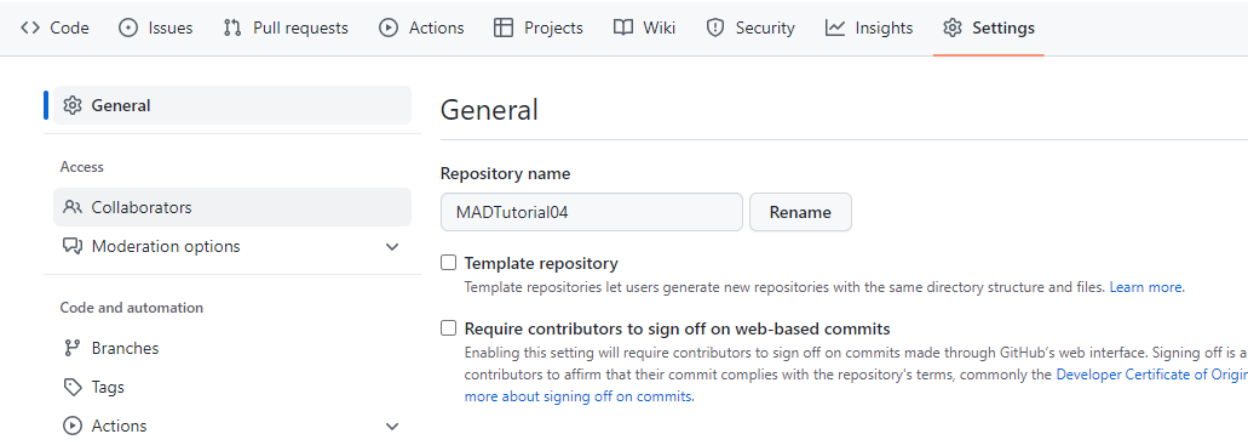
22. Check the code in the master branch form the GitHub
23. Go back to the Android Studio. Click Git and select pull.



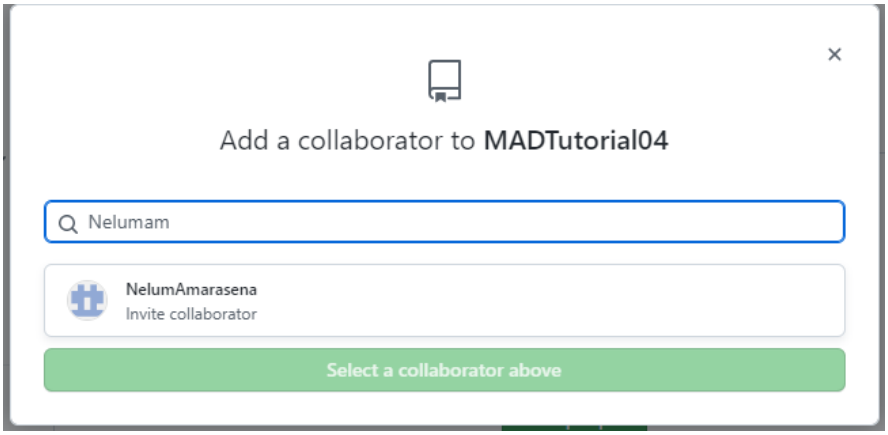
24. Then select the branch as master and click pull.
25. Observe the changes.

GitHub Collaboration

1. Go to the GitHub repository
2. Select settings
3. Select the Collaborators tab from the left side panel

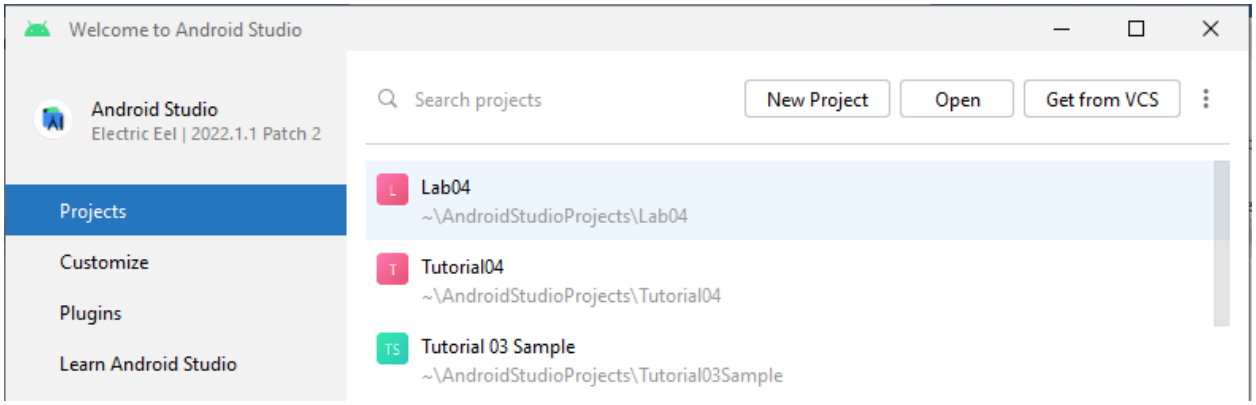


4. Click the 'Add People' Button to invite collaborators.
5. Add the GitHub user name of someone next you in the lab



6. Ask the other member to accept the request.
7. You can accept the other members request as well.
8. Then close the current Android Project
9. You should be able to see the Welcome screen

10. Select get from VCS



11. Add the URL of the neighbor's repository
12. Click clone
13. Once the project loads, create a new branch name 'feature/home_screen'
14. Design the home screen by adding some text views
15. Commit the changes
16. Push the feature/home_screen to your neighbor's repository
17. At this stage your neighbor should be able to do the same thing and you should be able to see the new branch from your git repository
18. Repeat the steps for merging branches to the master branch.

** These practices should be followed when you do the Group project as well