

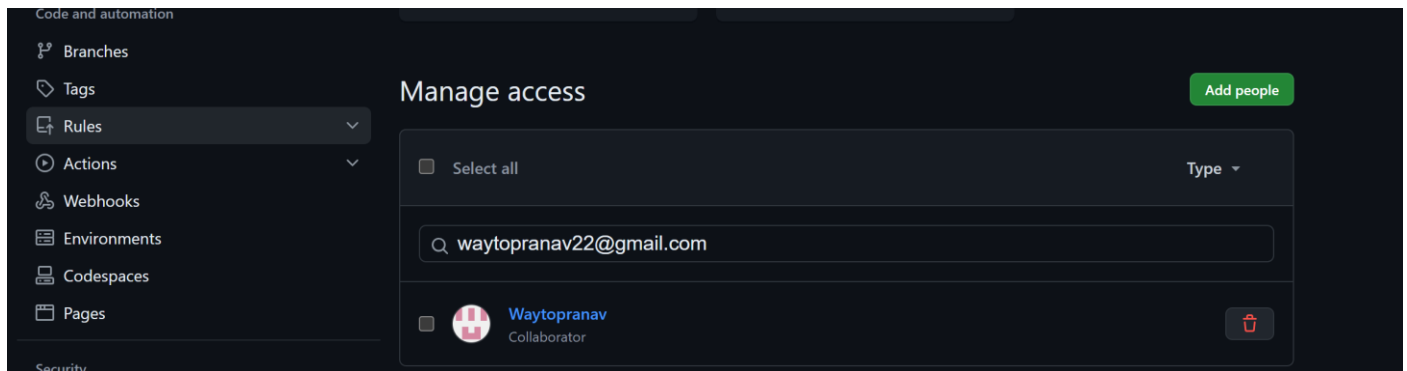
**Name:** Pranav Chaudhari

**Task:** Create a git repo with 2 branches (main, dev) respectively and then enable branch protection on main branch and code review for main branch, also brief about how or where to add code owner file in the git repo for those branches.

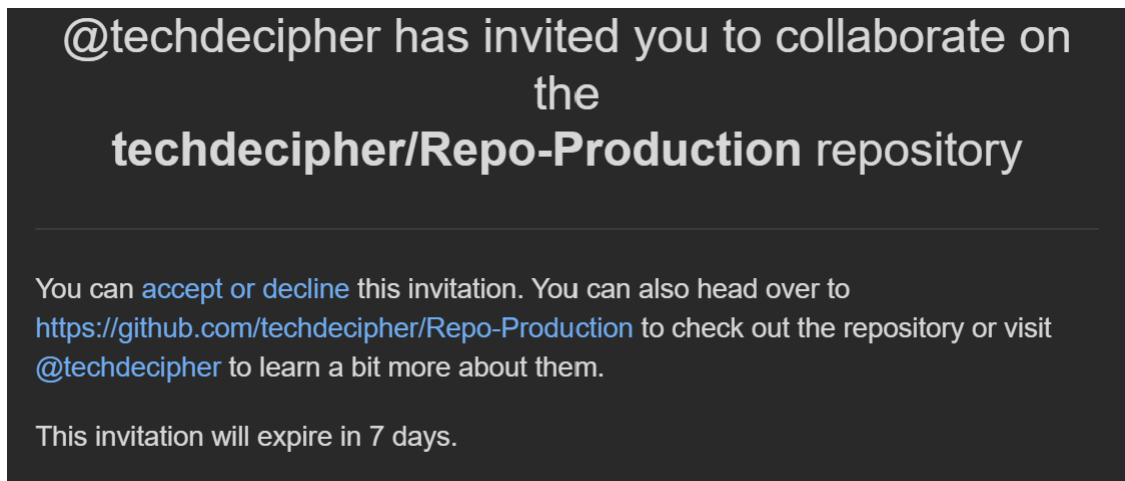
**Github Repo:** <https://github.com/techdecipher/Repo-Production>

**Step 1** -- (invite a collaborator first, this is the first step as reviewers must be collaborators)

Invite collaborator = Repository (where you want the collaboration) > top bar > settings > Collaborators > Manage access > add people



**Step 2** -- Collaborator will get email and he can then access the invitation. On the other account, accept the collaboration.



**Step 3** -- On the Primary Account create 1 main branch "main" and add necessary file, after this create a new dev branch add files, commit, push.

```
Pranav@TechDecipher MINGW64 ~/OneDrive/Desktop/Devops Admin Roadmap/Git2.0/Repo-Production (main)
$ ls -lah
total 11K
drwxr-xr-x 1 Pranav 197609  0 Aug  6 13:11 ./
drwxr-xr-x 1 Pranav 197609  0 Aug  6 10:28 ../
drwxr-xr-x 1 Pranav 197609  0 Aug  6 13:11 .git/
-rw-r--r-- 1 Pranav 197609 20 Aug  6 10:28 README.md
-rw-r--r-- 1 Pranav 197609 33 Aug  6 10:28 dev-dump.html
-rw-r--r-- 1 Pranav 197609 83 Aug  6 13:11 dump.html
drwxr-xr-x 1 Pranav 197609  0 Aug  6 13:11 tmp/
```

**Branch Protection:**

**Step 4** -- On the Primary Account goto the Repository and follow below workflow to protect the branch, ie branch protection.

goto target Repo > target branch (the one you want to protect) > settings > Branches > enter branch name to protect > apply rules > create >

**Branch name pattern** \*

main

**Applies to 1 branch**

main

**Protect matching branches**

- ☒ **Require a pull request before merging**  
When enabled, all commits must be made to a non-protected branch and submitted via a pull request before they can be merged into a branch that matches this rule.
- ☒ **Require approvals**  
When enabled, pull requests targeting a matching branch require a number of approvals and no changes requested before they can be merged.

Checked below settings – and save.

- Require a pull request before merging
- Require approvals
- Dismiss stale pull request approvals when new commits are pushed
- Do not allow bypassing the above settings

**Step 5** -- On the Primary account, checkout the "dev" branch and make some changes, eg bug fixes to files, for these changes only we are going to make reviews, that is codereviews. Make changes, commit, and push to remote repo.

```
Pranav@TechDecipher MINGW64 ~/OneDrive/Desktop/Devops Admin Roadmap/Git2.0/Repo-Production (dev)
$ git push origin dev
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (2/2), 252 bytes | 252.00 KiB/s, done.
Total 2 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/techdecipher/Repo-Production.git
4c5d223..f91c726 dev -> dev
```

## CodeReviews:

**Step 6** -- CodeReviews part (create pull request) - create a PR request and add reviewers .

Repo > pull-request > New pull request > Compare changes base (the base branch eg "main") - (compare branch eg "dev") because we have added branch protection on main branch > see changes, files changed, > Add a title: > Add a description: > add Reviewer (top right corner) and then >> click on Create pull request >

**Open a pull request**  
Create a new pull request by comparing changes across two branches. If you need to, you can also [compare across forks](#). [Learn more about diff comparisons here.](#)

base: main ← compare: dev ✓ **Able to merge.** These branches can be automatically merged.

**Add a title**  
Logo update

**Add a description**  
Write Preview  
This is a logo update

Markdown is supported Paste, drop, or click to add files

**Reviewers**  
Waytopranav  
At least 1 approving review is required to merge this pull request.

**Assignees**  
No one—[assign yourself](#)

**Labels**  
None yet

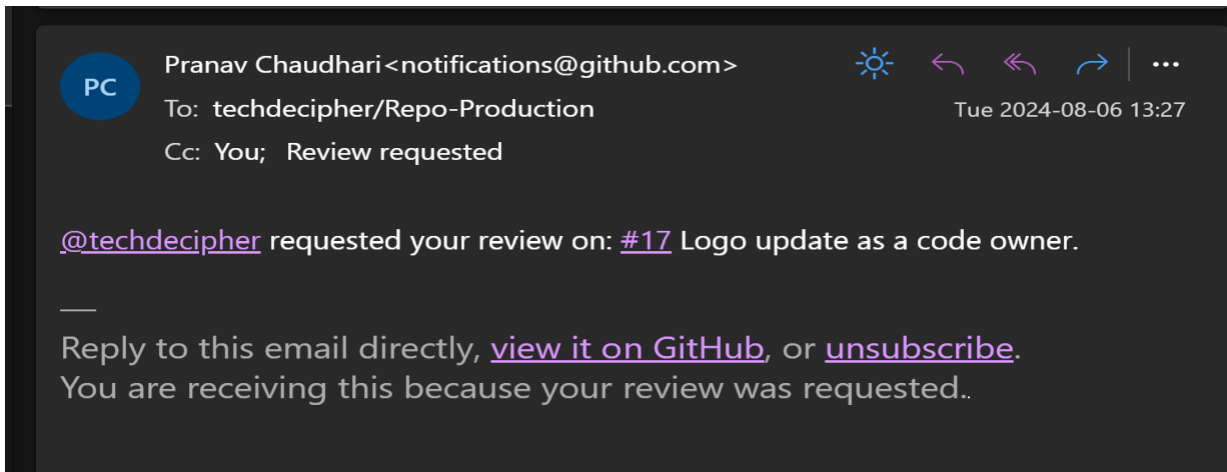
**Projects**  
None yet

**Milestone**  
No milestone

**Development**  
Use [Closing keywords](#) in the description to automatically close issues

Create pull request

**Step 7** -- CodeReview (doing code Review from reviewer side) -- The reviewer opens up the email and click on link to access the page.



Once link is opened Read title, description and then > Add Review > It redirects to File changes> goto code and add your comment on code + icon (if necessary) > Once everything is fine click on > Review changes on top right corner > it gives you 3 options >Comment the changes, summary and custom message.

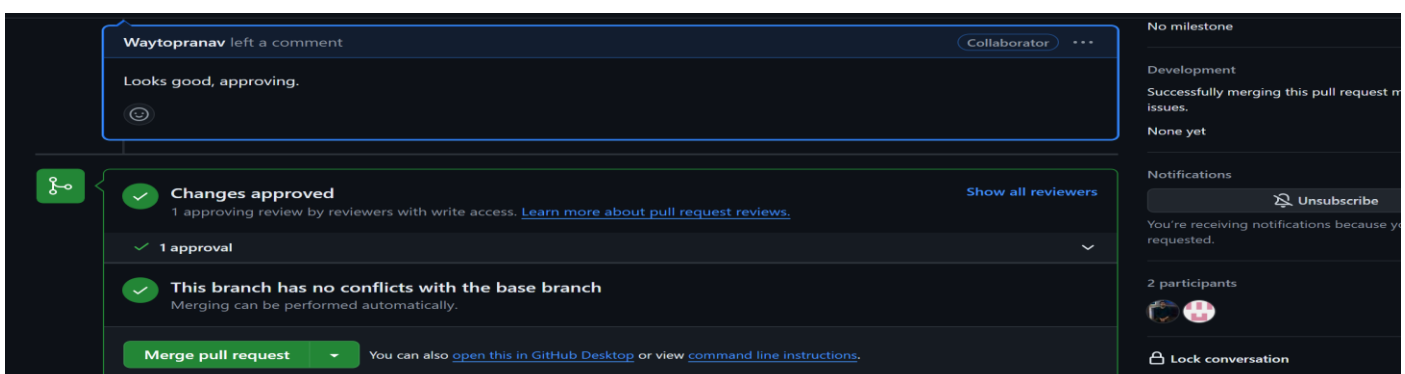
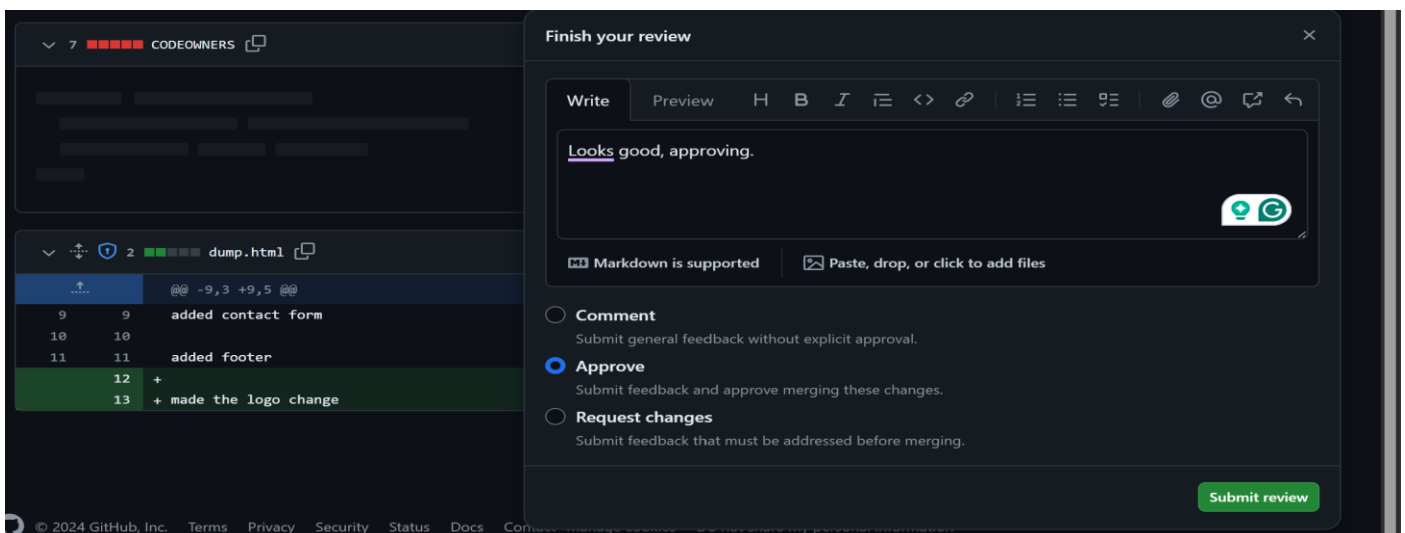
Comment: Submit general feedback without explicit approval.

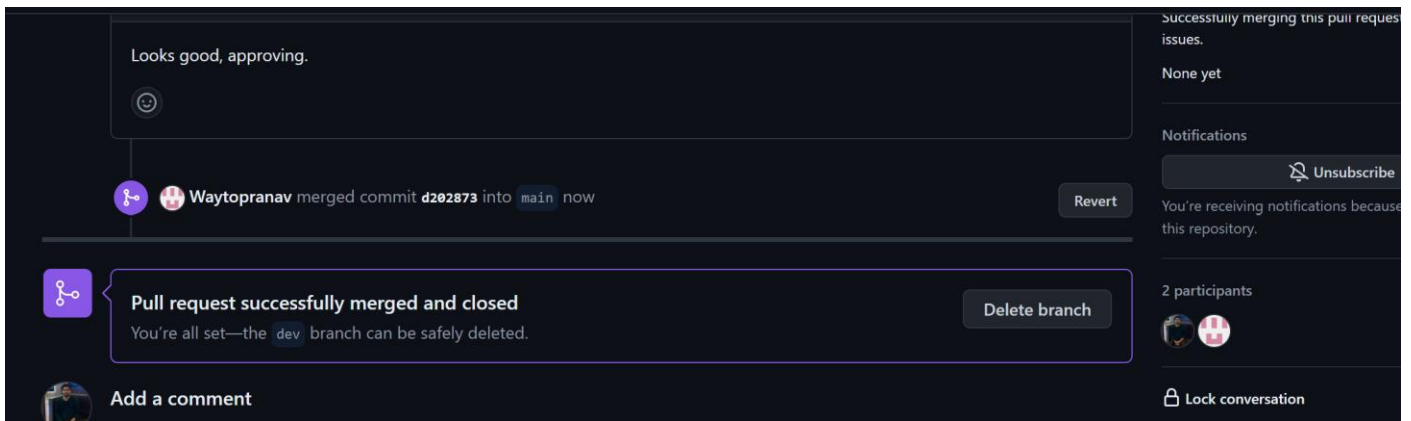
Approve: Submit feedback and approve merging these changes.

Request changes: Ask a request change before merging.

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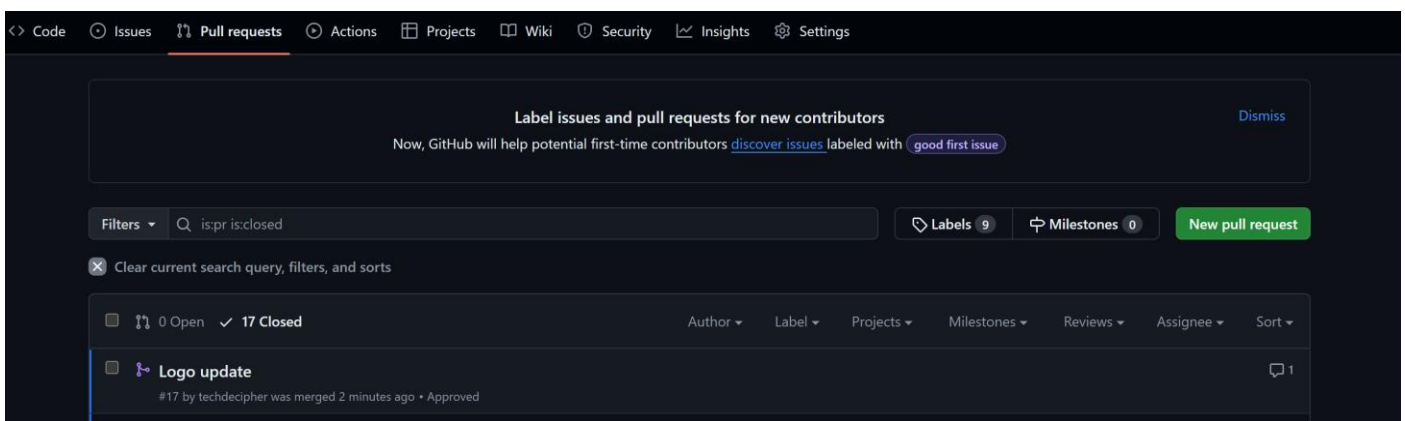
Select Approve (assuming everything is fine) > Submit Review > on redirected page > Merge pull request > confirm merge > and it will give > Pull request successfully merged and closed.





### Step 9 -- Verify approval (From Primary account)

Repo > pull-request > check the listed PRs. (closed)



### CODEOWNERS:

**Step 10** -- Codeowners : A CODEOWNERS file is used to automate the code review process by automatically assigning reviewers to pull requests that affect certain files or directories. This ensures that the right people review the code, facilitating efficient collaboration.

```

----File structure----
# Specific directories
/src/           @frontend-team
/src/backend/   @backend-owner @backend-team

# all Special files
*.js           @js-owner
*.css          @css-owner

# single specific file

dump.html      @waytopranav
README.md      @docs-owner
  
```

### The file can be placed in 3 ways:

1. inside main branch path .  
eg - /CODEOWNERS
2. create .github folder in main branch and can place the codeowners file there  
eg- /.github/CODEOWNERS
3. create docs folder in main branch and can place the codeowners file there  
eg- /docs/CODEOWNERS

**Step 11** – Added the CODEOWNERS file in the main branch using PR request method, approved it from the reviewers account, and made changes to target file which is set as rules in CODEOWNERS file, and created a PR request and it automatically assigned the reviewer who is responsible for reviewing the changes for that file.

My CODEOWNERS file

```
Pranav@TechDecipher MINGW64 ~/OneDrive/Desktop/Devops Admin Roadmap/Git2.0/Repo-Production (main)
$ cat CODEOWNERS

dump.html @waytopranav
/tmp/ @waytopranav
```

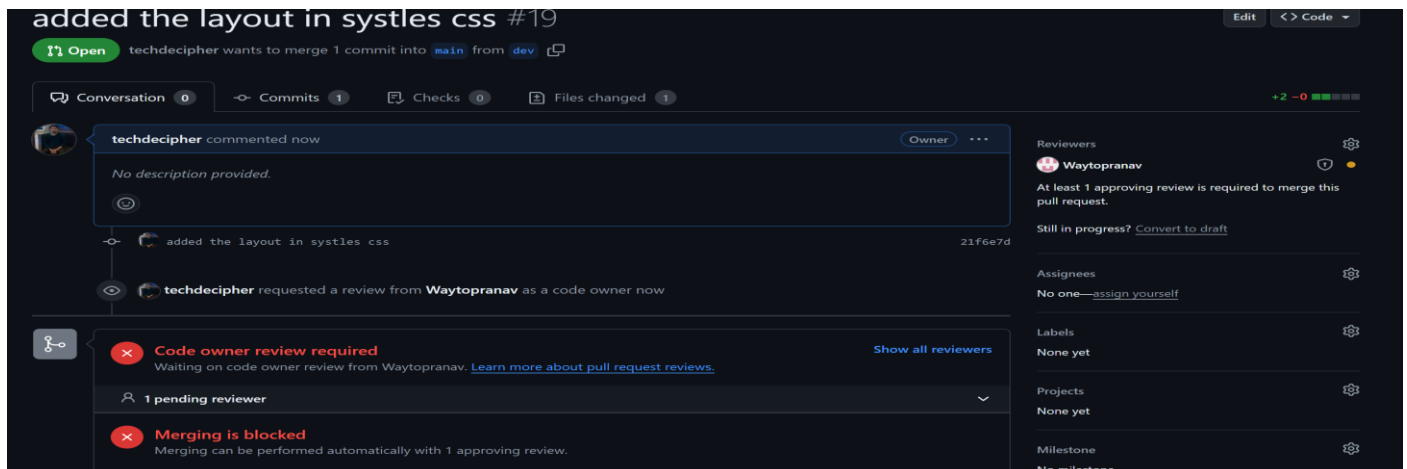
Checked out “dev” branch and made changes in the dev branch for file under /tmp/ directory and pushed it.

```
Pranav@TechDecipher MINGW64 ~/OneDrive/Desktop/Devops Admin Roadmap/Git2.0/Repo-Production (dev)
$ git add tmp/styles.css

Pranav@TechDecipher MINGW64 ~/OneDrive/Desktop/Devops Admin Roadmap/Git2.0/Repo-Production (dev)
$ git commit -m "added the layout in systles css"
[dev 21f6e7d] added the layout in systles css
1 file changed, 2 insertions(+)

Pranav@TechDecipher MINGW64 ~/OneDrive/Desktop/Devops Admin Roadmap/Git2.0/Repo-Production (dev)
$ git push origin dev
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (4/4), 381 bytes | 381.00 KiB/s, done.
Total 4 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/techdecipher/Repo-Production.git
c382d94..21f6e7d dev -> dev
```

Created pull review request from primary account and it automatically assigned the reviewers, ensuring codeowner file is working.



**Step 12** -- On the Reviewers account, closed the review by approving and complete merge.

