

Subject Name: Source Code Management

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Experiment No. 06

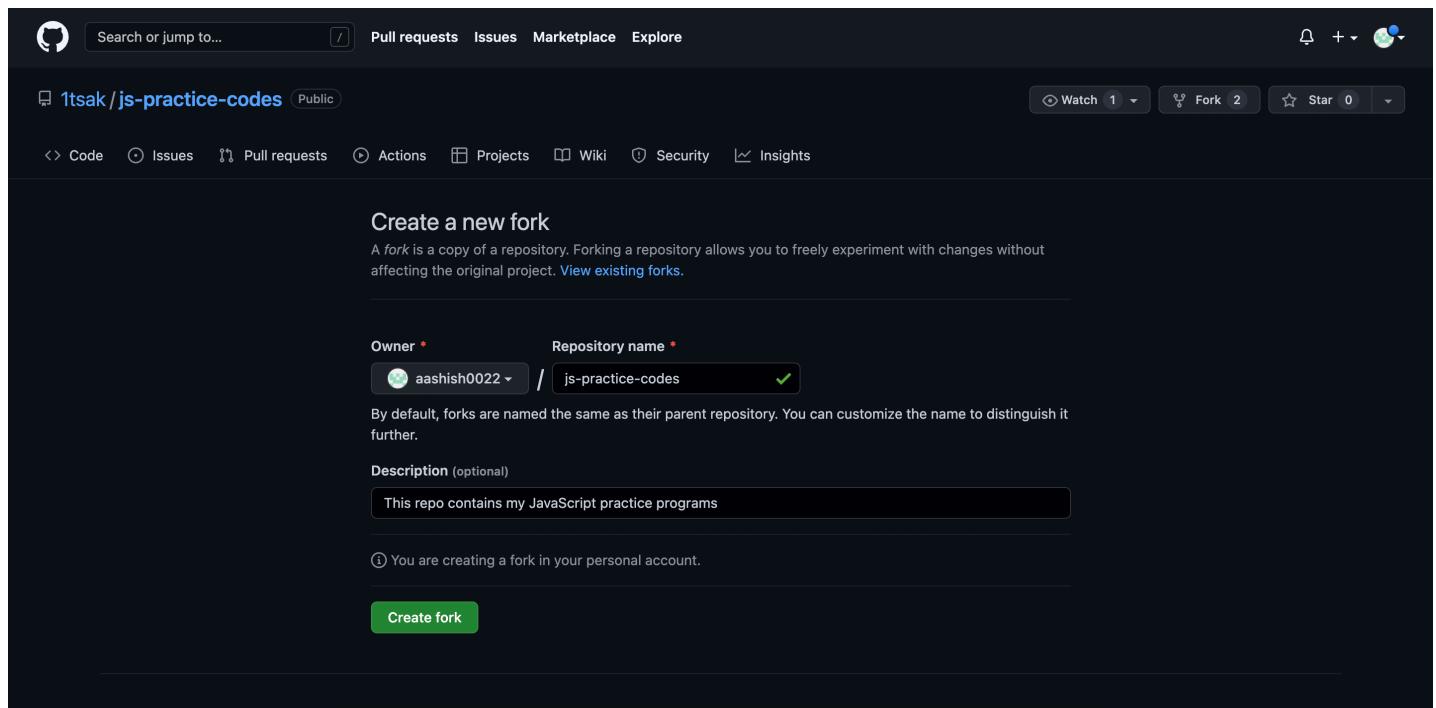
Aim: Add collaborators on Github Repo

Theory:

1. Create a New Repository.

A repository is like a folder for your project. You can have any number of public and private repositories in your user account. Repositories can contain folders and files, images, videos, spreadsheets, and data sets, as well as the revision history for all files in the repository. For more information, see "[About repositories](#)."

When you create a new repository, you should initialize the repository with a README file to let people know about your project. For more information, see "[Creating a new repository](#)."



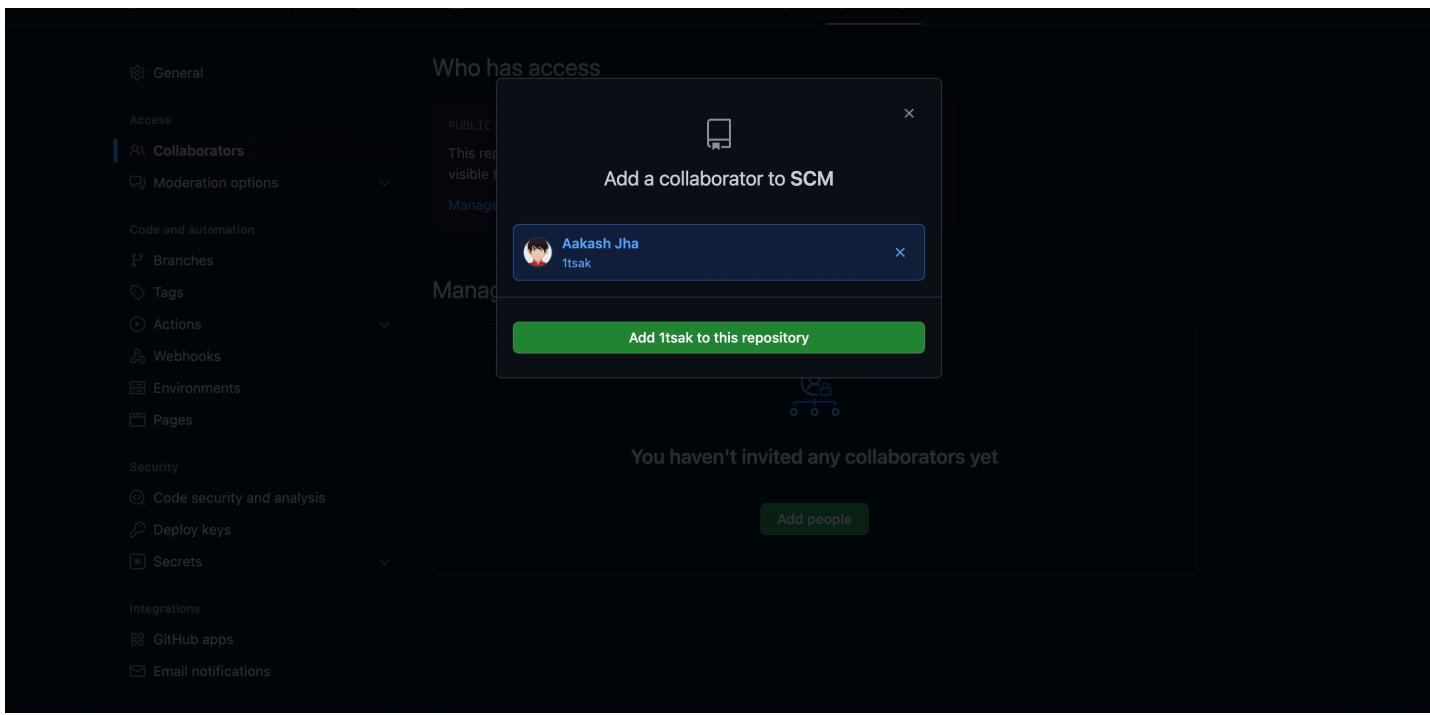
2. Now Copy the HTTP link of your repo and paste it on your 'Git CLI', and merge the local repo in remote repo .

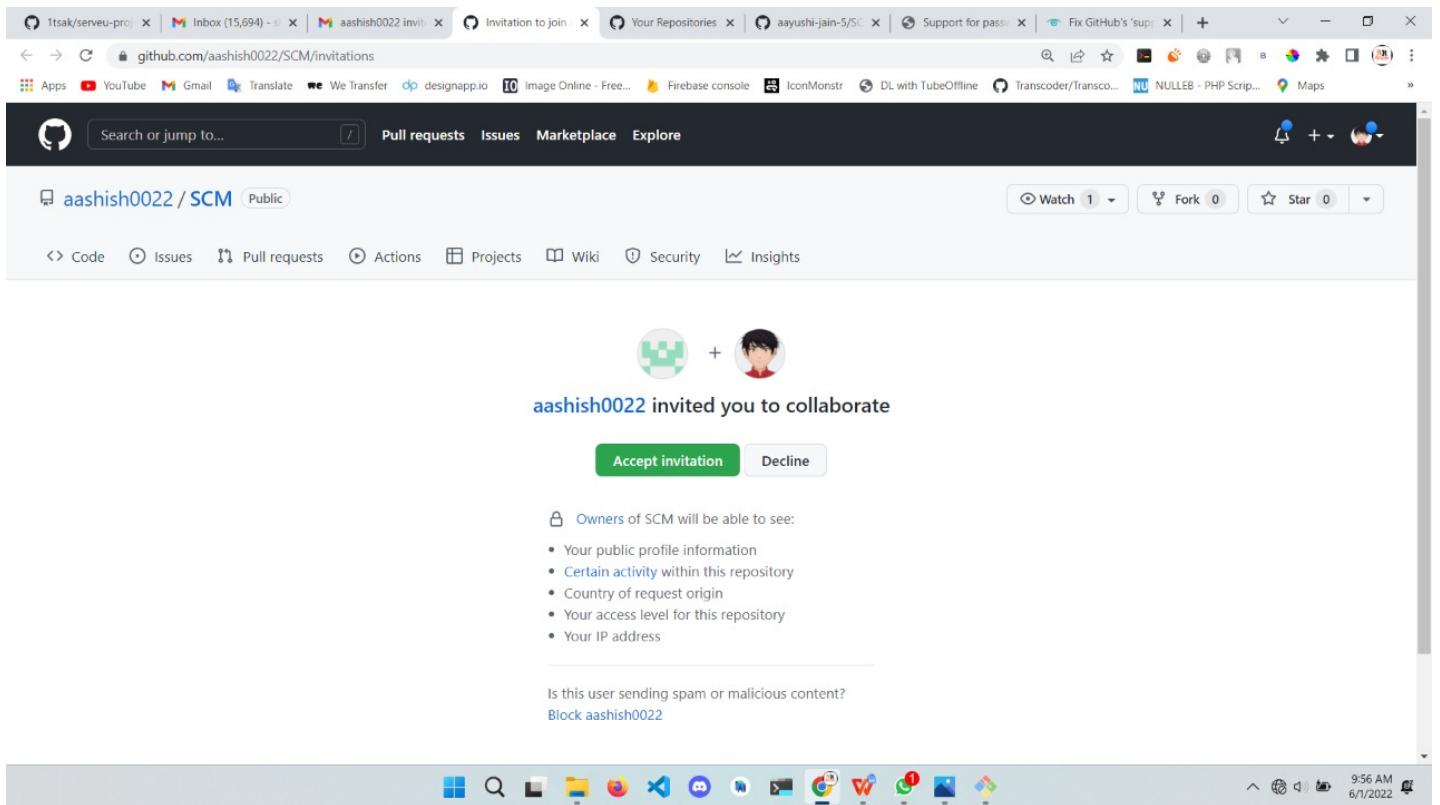
```

aashishbhardwaj@Aashishs-MacBook-Air SCM % git add .
[aashishbhardwaj@Aashishs-MacBook-Air SCM % git commit
[Aborting commit due to empty commit message.
aashishbhardwaj@Aashishs-MacBook-Air SCM % git commit -m "Initial commit"
[master (root-commit) a0cb503] Initial commit
 4 files changed, 231 insertions(+)
 create mode 100644 .DS_Store
 create mode 100644 project 1/.DS_Store
 create mode 100644 project 1/home.html
 create mode 100644 project 1/style2.css
aashishbhardwaj@Aashishs-MacBook-Air SCM % git remote add origin https://github.com/aashish0022/SCM.git
[aashishbhardwaj@Aashishs-MacBook-Air SCM % git push origin master
Username for 'https://github.com': aashish0022
>Password for 'https://aashish0022@github.com':
remote: Support for password authentication was removed on August 13, 2021. Please use a personal access token instead.
remote: Please see https://github.blog/2020-12-15-token-authentication-requirements-for-git-operations/ for more information.
fatal: Authentication failed for 'https://github.com/aashish0022/SCM.git/'
[aashishbhardwaj@Aashishs-MacBook-Air SCM % git push origin master
Username for 'https://github.com': ■

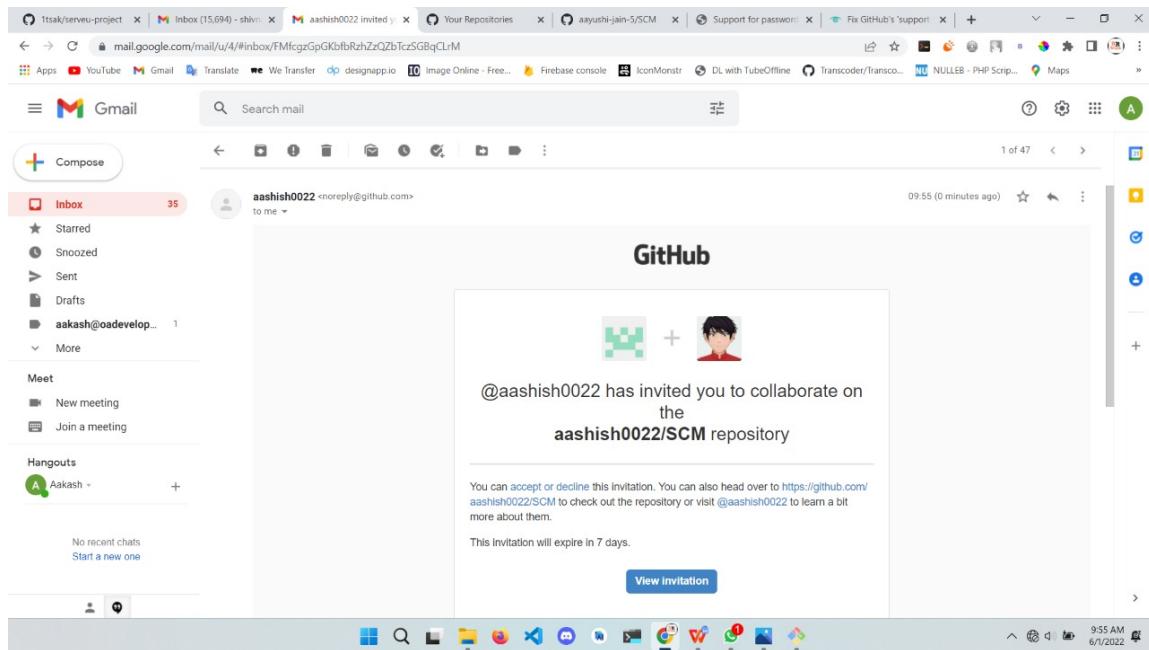
```

3. Go to Collaborators in Repo Setting, Add the username or email of Collaborator you want to add in your Repo.





4. Invitation Mail is sent to the Collaborator, the collaborator has to accept this Invitation.



5. New Collaborator has now access to the Aashish0022 Repo.

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Who has access

PUBLIC REPOSITORY

This repository is public and visible to anyone.

DIRECT ACCESS

1 has access to this repository. 1 collaborator.

Manage

Manage access

Add people

Select all

Find a collaborator...

Aakash Jha
1tsak · Collaborator

Remove

< Previous Next >

The screenshot shows the 'Settings' tab selected in the top navigation bar of a GitHub repository. On the left, a sidebar lists various configuration sections like General, Access, and Security. The 'Access' section is expanded, with 'Collaborators' currently selected. The main area displays information about the repository's visibility ('PUBLIC REPOSITORY') and its direct access ('DIRECT ACCESS'), which is currently empty. Below this, the 'Manage access' section allows users to add new collaborators, with a search bar and a list containing one entry: 'Aakash Jha' (1tsak · Collaborator). A 'Remove' button is available next to his name. Navigation arrows at the bottom indicate the ability to view previous or next pages of collaborators.

Experiment No. 07

Aim: Fork and Commit

Theory:

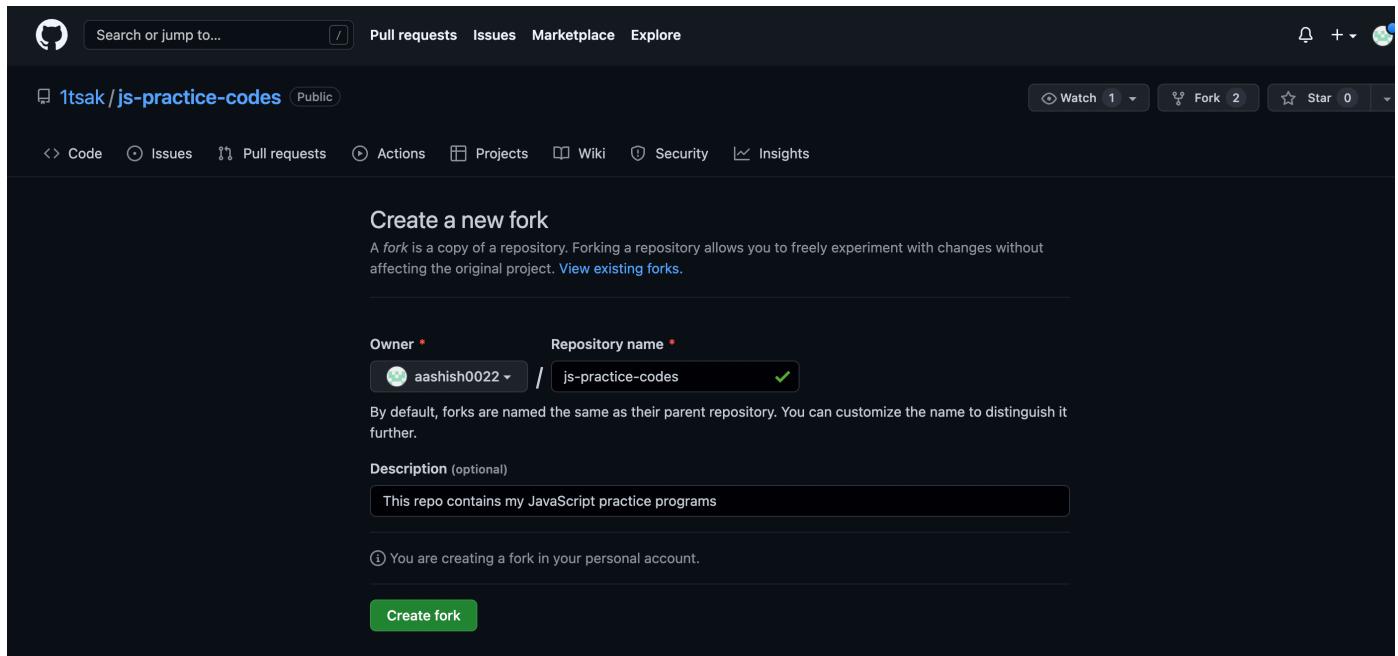
Fork :- A Fork is copy of a repository . Forking a repository allows you to freely experiment with changes without affecting the original Project.

1. To fork a repository first thing you need to do is, sign in to your GitHub account and then you came to the repository you want to fork, so here for demo purpose am using **aashish/js-practice-codes** repository.

The screenshot shows a GitHub repository page for 'aashish0022/js-practice-codes'. The repository is public and was forked from '1tsak/js-practice-codes'. The code tab is selected, showing a single branch named 'master' with 0 tags. The commit history lists several commits by user '1tsak' made on April 11, 2024. The commits include adding Jquery Practice Codes, webServer with node express, new practice codes, NodeJs Practice Folder, and Adding Few Programs. The repository has 3 forks and 0 stars. It also includes sections for Releases (no releases published) and Packages (no packages published).

Commit	Message	Date	Commits
Added Jquery Practice Codes	Added Jquery Practice Codes	2 months ago	7 commits
Node	Added webServer with node express	2 months ago	
.gitignore	Added webServer with node express	2 months ago	
const.js	new practice codes	2 months ago	
dataTypes.js	Added New Code Pieces	2 months ago	
destructuring.js	Added NodeJs Practice Folder	2 months ago	
functions.js	Added NodeJs Practice Folder	2 months ago	
hello.js	Adding Few Programs	2 months ago	
objects.js	Added New Code Pieces	2 months ago	

2. Click on the **Fork** button on right upside corner. Then it will ask to create a new fork, add description if you want and then click on create fork.



3. Now you will have a copy of the repo you have forked from other user. Now you can do any modification you want without making changes to main source code.

This branch is 1 commit ahead of 1tsak:master.

Commit	Message	Date	Author
a6fa28f	Added Jquery Practice Codes	3 hours ago	aashish0022
b6a6a6a	Added webServer with node express	2 months ago	aashish0022
c6c6c6c	Added webServer with node express	2 months ago	aashish0022
d6d6d6d	new practice codes	2 months ago	aashish0022
e6e6e6e	Added New Code Pieces	2 months ago	aashish0022
f6f6f6f	Added NodeJs Practice Folder	2 months ago	aashish0022
g6g6g6g	Added NodeJs Practice Folder	2 months ago	aashish0022
h6h6h6h	Added comments	3 hours ago	aashish0022
i6i6i6i	Added New Code Pieces	2 months ago	aashish0022

4. Now type <https://github.com/aashish0022/js-practice-codes> on CLI.

Git pull <url> --> This command is used to fetch the remote repo or to clone the repo.

```
nishbhardwaj@Aashishs-MacBook-Air SCM % cd ..
nishbhardwaj@Aashishs-MacBook-Air Desktop % git clone https://github.com/aashish0022/js-practice-codes.git
ning into 'js-practice-codes'...
ote: Enumerating objects: 41, done.
ote: Counting objects: 100% (41/41), done.
ote: Compressing objects: 100% (38/38), done.
ote: Total 41 (delta 9), reused 37 (delta 5), pack-reused 0
eiving objects: 100% (41/41), 42.40 KiB | 1.09 MiB/s, done.
olving deltas: 100% (9/9), done.
nishbhardwaj@Aashishs-MacBook-Air Desktop %
Arrow function.pptx           SCM
this keyword.pptx              Screenshot 2022-05-17 at 9.06.30 PM.png
Classes and objects.pptx       Screenshot 2022-06-01 at 9.32.52 AM.png
Regular expression_navjeet.pptx Screenshot 2022-06-01 at 9.44.16 AM.png
- Chapter 1.pptx               Screenshot 2022-06-01 at 9.53.19 AM.png
Arrays (Lect-4,5,6).pptx       Screenshot 2022-06-01 at 9.55.31 AM.png
Class and Object(Lect-9-10)(v2).pptx Screenshot 2022-06-01 at 9.56.26 AM.png
Cons and Dest (Lect-11).pptx   Screenshot 2022-06-01 at 9.59.05 AM.png
DecisionMaking(Lect-3).pptx    Screenshot 2022-06-01 at 9.59.50 AM.png
Functions in C++(Lect-7,8)(v2).ppt college stuff
Introduction(Lect-1,2).pptx    js-practice-codes
Opr_Overload_TypeConversions_v2(Lect-12,13).pptx new
es
nishbhardwaj@Aashishs-MacBook-Air Desktop % cd js-practice-codes
nishbhardwaj@Aashishs-MacBook-Air js-practice-codes % ls
ery           const.js          destructuring.js      hello.js        spreadOperator.js      sum_prog.js
e            datatypes.js     functions.js      objects.js      strings.js      variables.js
nishbhardwaj@Aashishs-MacBook-Air js-practice-codes % nano hello.js
nishbhardwaj@Aashishs-MacBook-Air js-practice-codes % git add .
nishbhardwaj@Aashishs-MacBook-Air js-practice-codes % git commit -m "Added comments"
ster a6fa28f] Added comments
file changed, 3 insertions(+), 1 deletion(-)
nishbhardwaj@Aashishs-MacBook-Air js-practice-codes % git push origin master
erating objects: 5, done.
nting objects: 100% (5/5), done.
ta compression using up to 8 threads
ressing objects: 100% (3/3), done.
ting objects: 100% (3/3), 324 bytes | 324.00 KiB/s, done.
al 3 (delta 1), reused 0 (delta 0), pack-reused 0
ote: Resolving deltas: 100% (1/1), completed with 1 local object.
https://github.com/aashish0022/js-practice-codes.git
426bb1d..a6fa28f  master -> master
nishbhardwaj@Aashishs-MacBook-Air js-practice-codes %
```

5. Now Open the file make changes in it and commit it and push it to remote.

6. Now go to GitHub and accept the merge request.

Added comments by aashish0022 x +

github.com/1tsak/js-practice-codes/pull/1

Apps YouTube Gmail Translate We Transfer designapp.io Image Online - Free... Firebase console IconMonstr DL with TubeOffline Transcoder/Transco... NULLEB - PHP Script... Maps

1tsak / js-practice-codes Public

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

Added comments #1

Merged 1tsak merged 1 commit into 1tsak:master from aashish0022:master now

Conversation 0 Commits 1 Checks 0 Files changed 1 +3 -1

aashish0022 commented 3 hours ago

No description provided.

Added comments a6fa28f

1tsak merged commit f8dc0fb into 1tsak:master now Revert

Write Preview

Leave a comment

Reviewers No reviews

Assignees No one—assign yourself

Labels None yet

Projects None yet

Milestone

1:25 PM 6/1/2022

The screenshot shows a GitHub pull request page for a repository named 'js-practice-codes'. The pull request has been merged. A comment was added by user 'aashish0022' 3 hours ago, but it contains no description. Below the comment, another commit was merged by '1tsak' into the '1tsak:master' branch. The GitHub interface includes standard navigation buttons like 'Code', 'Issues', 'Pull requests', and 'Actions', along with project management tools like 'Projects', 'Wiki', 'Security', 'Insights', and 'Settings'. On the right side, there are sections for 'Reviewers' (none), 'Assignees' (none), 'Labels' (none), 'Projects' (none), and 'Milestone' (none). The bottom of the screen shows the Windows taskbar with various pinned icons.

Experiment No. 08

Aim: Merge and Resolve Conflicts

Theory:

1. Do changes in master branch and commit those change. And checkout to different branch and again do changes and commit it. Now checkout to master branch and merge that branch in master.

COMMIT IN MASTER BRANCH

COMMIT IN ACTIVITY BRANCH

2. Now try to merge it will give Conflicts Error.

```
aashishbhardwaj@Aashishs-MacBook-Air js-practice-codes % git branch
  aashish
* master
aashishbhardwaj@Aashishs-MacBook-Air js-practice-codes % git merge aashish
[Auto-merging hello.js
CONFLICT (content): Merge conflict in hello.js
Automatic merge failed; fix conflicts and then commit the result.
[aashishbhardwaj@Aashishs-MacBook-Air js-practice-codes % git mergetool

This message is displayed because 'merge.tool' is not configured.
See 'git mergetool --tool-help' or 'git help config' for more details.
['git mergetool' will now attempt to use one of the following tools:
opendiff tortoisemerge emerge vimdiff nvimdiff
Merging:
hello.js

Normal merge conflict for 'hello.js':
{local}: modified file
{remote}: modified file
Hit return to start merge resolution tool (opendiff):
```

3. Use Command “git mergetool” to solve the conflict.

git -mergetool – Run merge conflict resolution tools to resolve merge conflicts.

```
aashishbhardwaj@Aashishs-MacBook-Air js-practice-codes % git status
On branch master
Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)

All conflicts fixed but you are still merging.
[ (use "git commit" to conclude merge)

Changes to be committed:
  modified:   hello.js

Untracked files:
  (use "git add <file>..." to include in what will be committed)
[   hello.js.orig

aashishbhardwaj@Aashishs-MacBook-Air js-practice-codes % git add .
aashishbhardwaj@Aashishs-MacBook-Air js-practice-codes % git commit -m "Merged Branches"
[master 4739023] Merged Branches
aashishbhardwaj@Aashishs-MacBook-Air js-practice-codes %
```

4. Press “I” to insert, after insertion . Press “:wq”. The merge conflict is solved and our Activity branch is merged to master branch.

```
MINGW64/c/Users/yaksh/Desktop/SCM1
```

```
./file1.LOCAL_482.txt [dos] (15:12 02/05/2022) 1,3-1 All ./file1.BASE_482.txt [dos] (15:12 02/05/2022) 1,5-1 All ./file1.REMOTE_482.txt [dos] (15:12 02/05/2022) 2,5-1 All
```

```
<<<<< HEAD  
hemlo  
>>>>> activity
```

```
file1.txt [dos] (15:12 02/05/2022)
```

Experiment No. 09

Aim: Reset and Revert

Theory:

Git-revert – Revert some existing commits.

1. On GitBash CLI, Type command “git revert <Commit id>”. It revert the changes that done before Commit.

```
[aashishbhardwaj@aashishshs-MacBook-Air project 1 % git log
commit 9396d49b1ba300e2f18a2a4d10b217792e9d10ea (HEAD -> master)
Author: Aashish@0922 <aashish@0922.be21@chitkara.edu.in>
Date:   Wed Jun 1 13:34:16 2022 +0530

Comments

commit a0cb503629a24ba8c286405f54d3d13d0ac9c1e7 (origin/master)
Author: Aashish@0922 <aashish@0922.be21@chitkara.edu.in>
Date:   Wed Jun 1 09:36:15 2022 +0530

Initial commit
[aashishbhardwaj@aashishshs-MacBook-Air project 1 % git revert 9396d49b1ba300e2f18a2a4d10b217792e9d10ea
[master 4bb0162] Revert "Comments"
 1 file changed, 1 insertion(+), 2 deletions(-)
aashishbhardwaj@aashishshs-MacBook-Air project 1 % ]
```

git revert HEAD~3 :-

Revert the changes specified by the fourth last commit in HEAD and create a new commit with the reverted changes

Git-reset - Reset current HEAD to the specified state

2. At a surface level, git reset is similar in behavior to git checkout. Where git checkout solely operates on the HEAD ref pointer, git reset will move the HEAD ref pointer and the current branch ref pointer. To better demonstrate this behaviour consider the following example. This example demonstrates a sequence of commits on the main branch. The HEAD ref and main branch ref currently point to commit d. Now let us execute and compare, both git checkout b and git reset b.



GIT RESET:

1. **reset** is the command we use when we want to move the repository back to a previous **commit**, discarding any changes made after that **commit**.

```
[aashishbhardwaj@Aashishs-MacBook-Air js-practice-codes % git reset --hard 426bb1d
HEAD is now at 426bb1d Added Jquery Practice Codes
[aashishbhardwaj@Aashishs-MacBook-Air js-practice-codes % git log --oneline
426bb1d (HEAD -> master) Added Jquery Practice Codes
07ae0eb Added webServer with node express
02076a6 Added NodeJs Practice Folder
ad4547a added destructuring concept
f9c08a0 Added New Code Pieces
fad8a84 new practice codes
e3de23b Adding Few Programs
aashishbhardwaj@Aashishs-MacBook-Air js-practice-codes %
```
