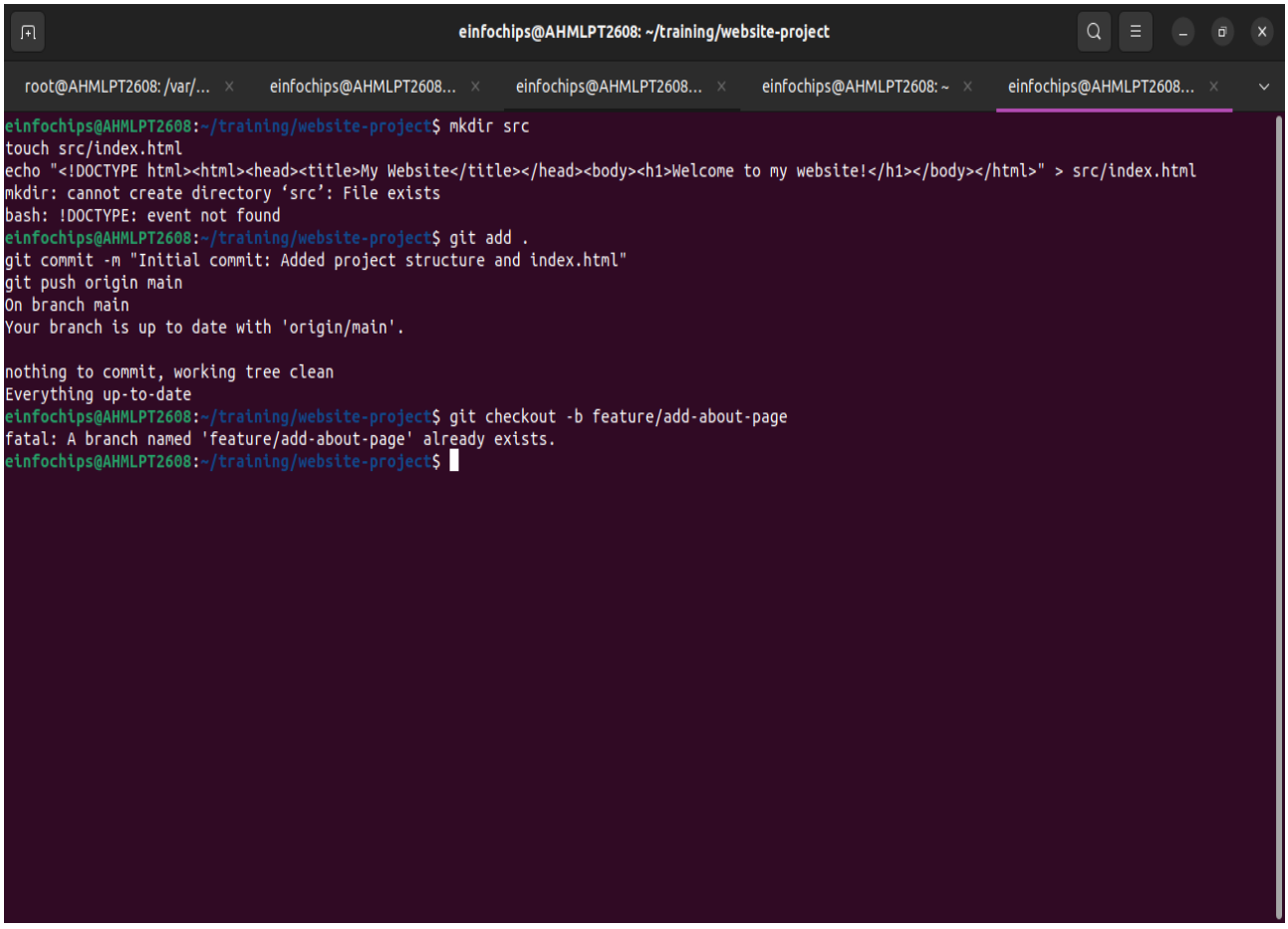
Git Project

Install Git:

1 **Set Up Git**:
2 **Create a GitHub Repository**:
3 **Initialize the Project**:



Exercise 1: Branching and Basic Operations

Create a New Branch:

Add a New Page:

Exercise 2: Merging and Handling Merge Conflicts

Create Another Branch:

Update the Homepage:

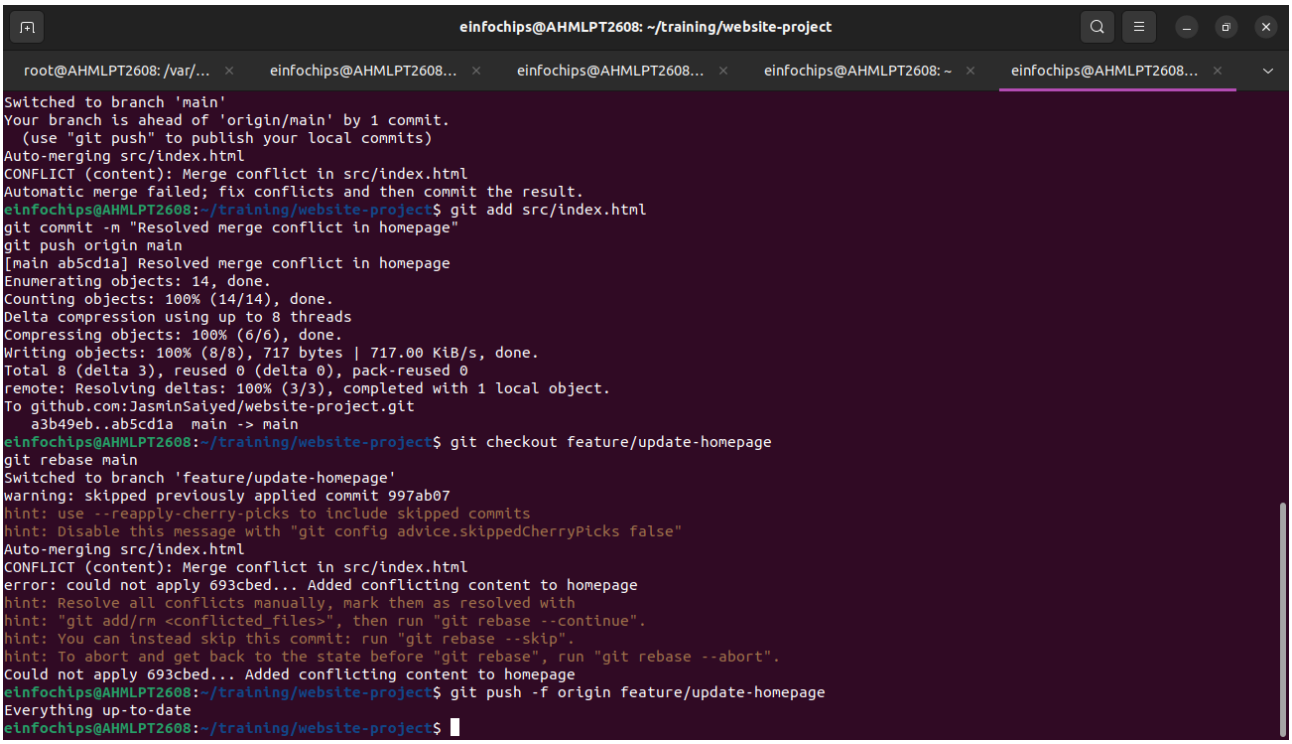
Create a Merge Conflict:

Merge and Resolve Conflict:

Exercise 3: Rebasing

Rebase a Branch:

Push the Rebased Branch:



Exercise 4: Pulling and Collaboration

Pull Changes from Remote:

Simulate a Collaborator's Change:

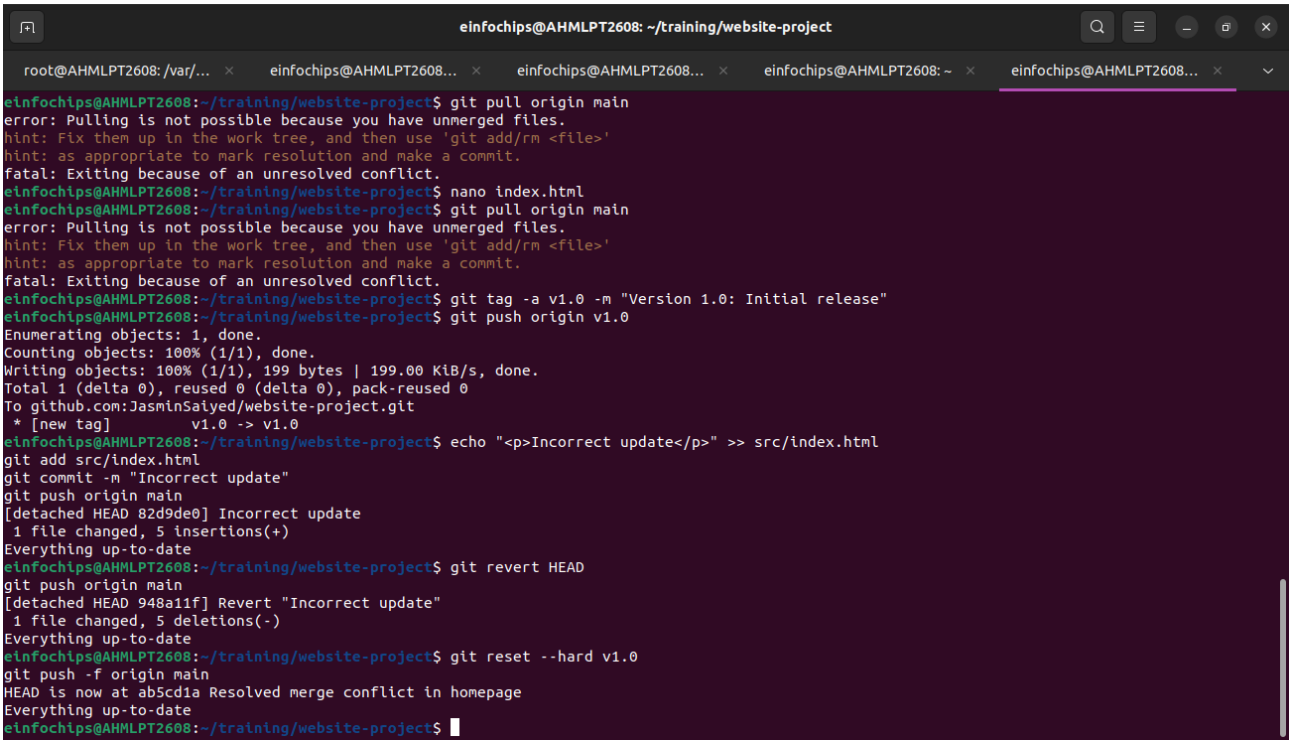
Pull Collaborator's Changes:

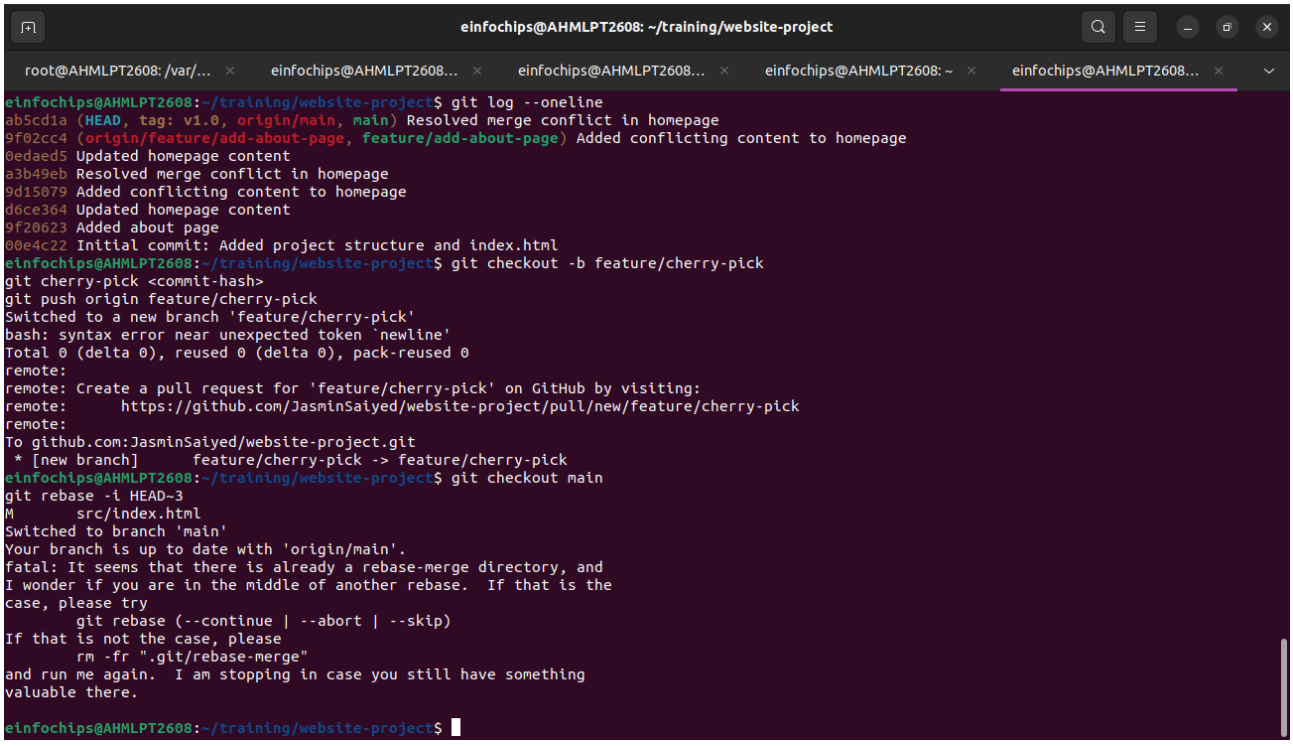
Exercise 5: Versioning and Rollback

Tagging a Version:

Make a Change that Needs Reversion:

Revert to a Previous Version:


einfochips@AHMLPT2608: ~/training/website-project
root@AHMLPT2608: /var/...
einfochips@AHMLPT2608...
einfochips@AHMLPT2608...
einfochips@AHMLPT2608: ~
einfochips@AHMLPT2608...
einfochips@AHMLPT2608:~/training/website-project$ git pull origin main
error: Pulling is not possible because you have unmerged files.
hint: Fix them up in the work tree, and then use 'git add/rm <file>'
hint: as appropriate to mark resolution and make a commit.
fatal: Exiting because of an unresolved conflict.
einfochips@AHMLPT2608:~/training/website-project$ nano index.html
einfochips@AHMLPT2608:~/training/website-project$ git pull origin main
error: Pulling is not possible because you have unmerged files.
hint: Fix them up in the work tree, and then use 'git add/rm <file>'
hint: as appropriate to mark resolution and make a commit.
fatal: Exiting because of an unresolved conflict.
einfochips@AHMLPT2608:~/training/website-project$ git tag -a v1.0 -m "Version 1.0: Initial release"
einfochips@AHMLPT2608:~/training/website-project$ git push origin v1.0
Enumerating objects: 1, done.
Counting objects: 100% (1/1), done.
Writing objects: 100% (1/1), 199 bytes | 199.00 KiB/s, done.
Total 1 (delta 0), reused 0 (delta 0), pack-reused 0
To github.com:JasminSaiyed/website-project.git
 * [new tag]   v1.0 -> v1.0
einfochips@AHMLPT2608:~/training/website-project$ echo " Incorrect update " >> src/index.html
git add src/index.html
git commit -m "Incorrect update"
git push origin main
[detached HEAD 82d9de0] Incorrect update
 1 file changed, 5 insertions(+)
Everything up-to-date
einfochips@AHMLPT2608:~/training/website-project$ git revert HEAD
git push origin main
[detached HEAD 948a11f] Revert "Incorrect update"
 1 file changed, 5 deletions(-)
Everything up-to-date
einfochips@AHMLPT2608:~/training/website-project$ git reset --hard v1.0
git push -f origin main
HEAD is now at ab5cd1a Resolved merge conflict in homepage
Everything up-to-date
einfochips@AHMLPT2608:~/training/website-project$


einfochips@AHMLPT2608: ~/training/website-project
root@AHMLPT2608: /var/...
einfochips@AHMLPT2608...
einfochips@AHMLPT2608...
einfochips@AHMLPT2608: ~
einfochips@AHMLPT2608...
einfochips@AHMLPT2608:~/training/website-project$ git log --oneline
ab5cd1a (HEAD, tag: v1.0, origin/main, main) Resolved merge conflict in homepage
9f02cc4 (origin/feature/add-about-page, feature/add-about-page) Added conflicting content to homepage
0edaed5 Updated homepage content
a3b49eb Resolved merge conflict in homepage
9d15079 Added conflicting content to homepage
d6ce364 Updated homepage content
9f20623 Added about page
00e4c22 Initial commit: Added project structure and index.html
einfochips@AHMLPT2608:~/training/website-project$ git checkout -b feature/cherry-pick
git cherry-pick <commit-hash>
git push origin feature/cherry-pick
Switched to a new branch 'feature/cherry-pick'
bash: syntax error near unexpected token `newline'
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'feature/cherry-pick' on GitHub by visiting:
remote: https://github.com/JasminSaiyed/website-project/pull/new/feature/cherry-pick
remote:
To github.com:JasminSaiyed/website-project.git
 * [new branch]   feature/cherry-pick -> feature/cherry-pick
einfochips@AHMLPT2608:~/training/website-project$ git checkout main
git rebase -i HEAD~3
M   src/index.html
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
fatal: It seems that there is already a rebase-merge directory, and
I wonder if you are in the middle of another rebase. If that is the
case, please try
        git rebase (--continue | --abort | --skip)
If that is not the case, please
        rm -fr ".git/rebase-merge"
and run me again. I am stopping in case you still have something
valuable there.
einfochips@AHMLPT2608:~/training/website-project$

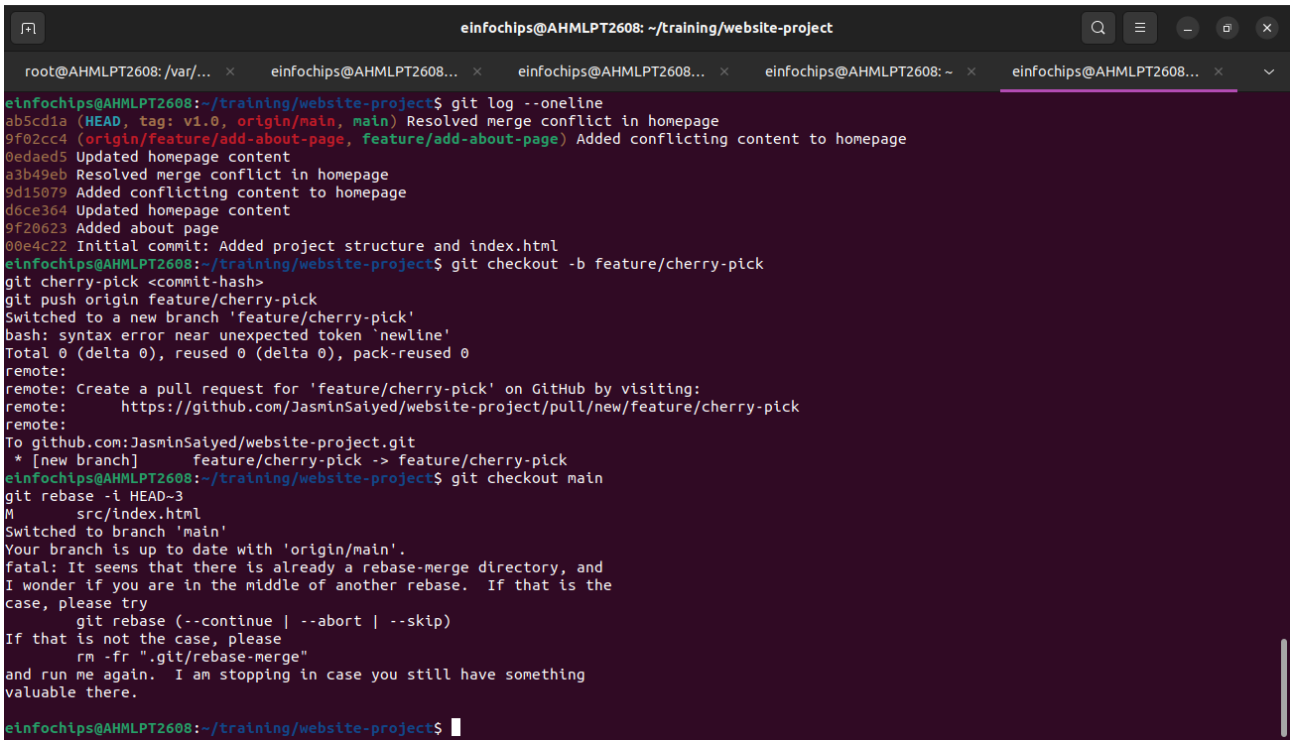
Extra Activities

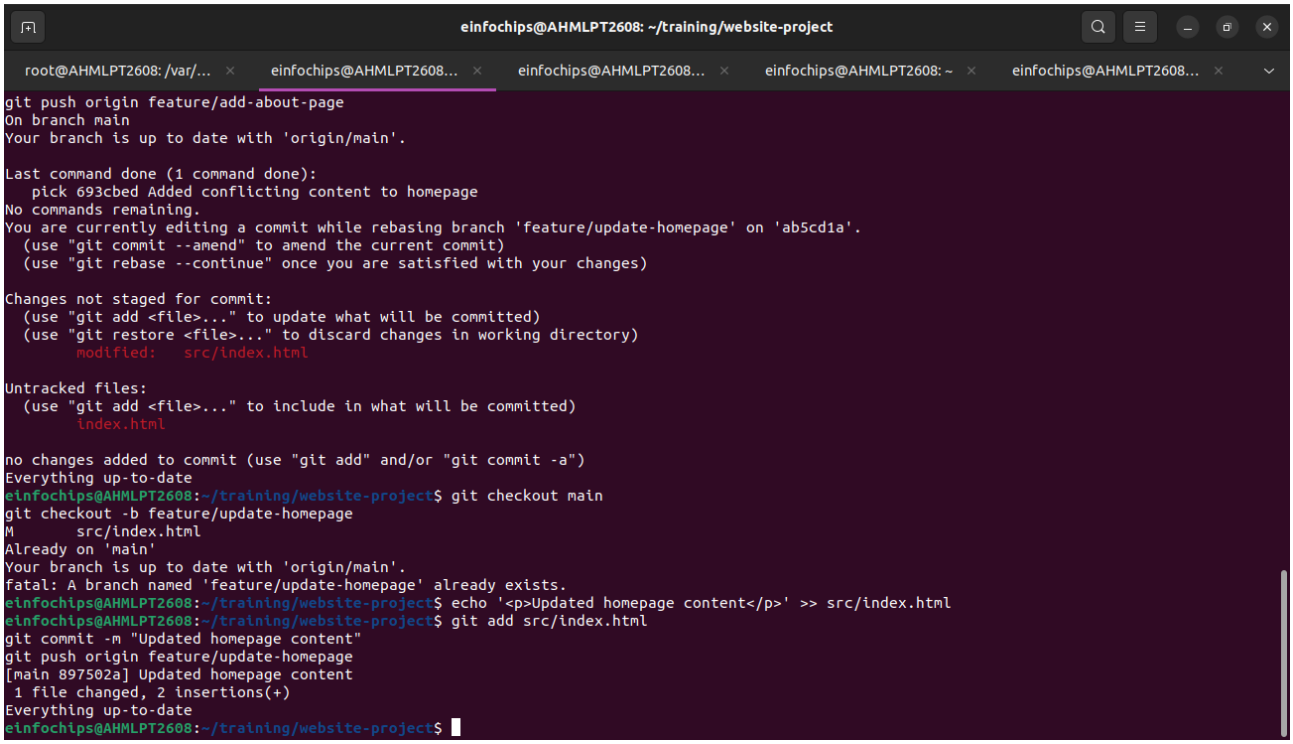
Stashing Changes:

Viewing Commit History:

Cherry-Picking Commits:

Interactive Rebase:





Collaborative Blogging Platform

Create a GitHub Repository:

Initialize the Project:

Exercise 1: Branching and Adding Features (

Create a New Branch for Blog Post Feature:

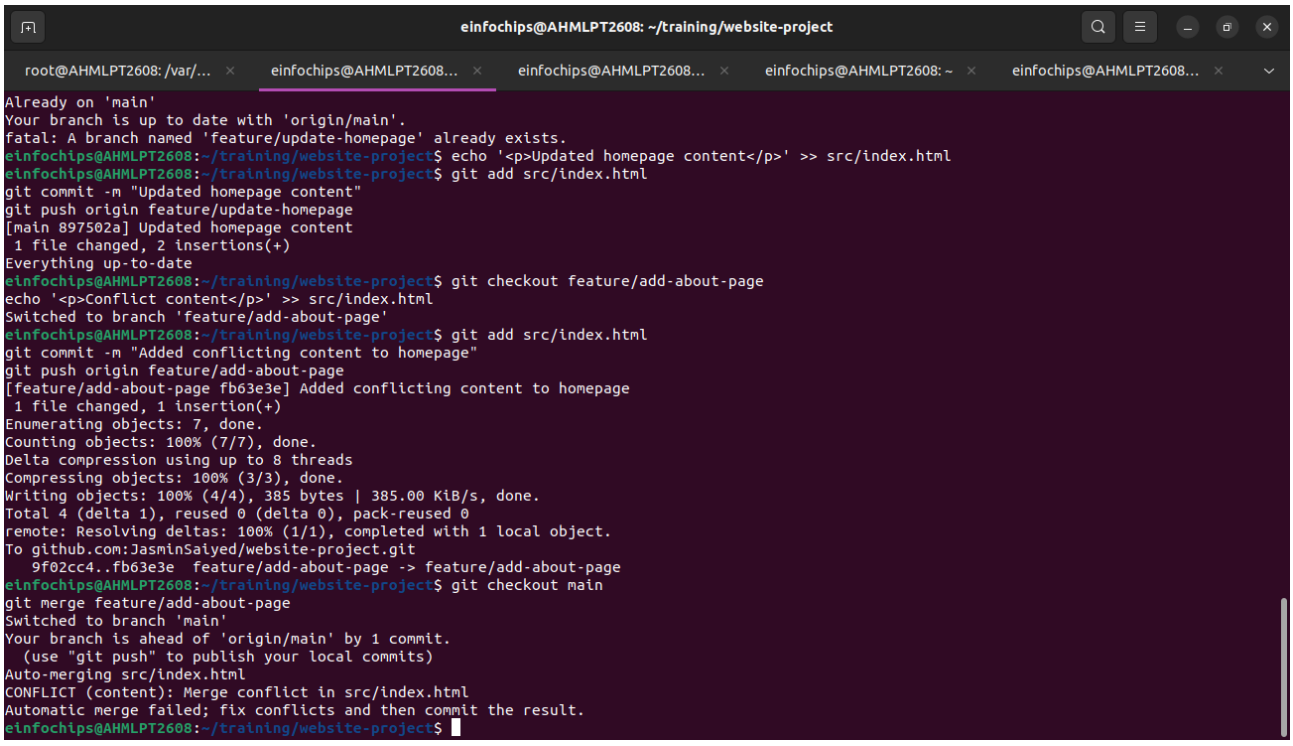
Add a Blog Post Page:

Exercise 2: Collaborating with Merging and Handling Merge Conflicts (25 minutes)

Create Another Branch for Author Info:

Add Author Info to Blog Page:

Create a Merge Conflict:

Merge and Resolve Conflict:

Exercise 3: Rebasing and Feature Enhancement
Exercise 4: Pulling and Simulating Collaboration
Exercise 5: Versioning and Rollback