

CCS3313-Advanced Software Design

Report on

Version Controlling a Class Diagram Using Git

Group No – 06

22UG1-0463

22UG2-0192

22UG1-0028

22ug1-0804

22ug1-0443

Tasks completed

1. Repository Setup

- Create a local folder named after our named "Library Management System".
- Initialize a Git repository .

```
Microsoft Windows [Version 10.0.22631.4541]
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C:\campus\3rd\2 sem\Advanced Software Design\LibraryManagementSystem>git init
Reinitialized existing Git repository in C:/campus/3rd/2 sem/Advanced Software Design/LibraryManagementSystem/.git/
```

- Created a subfolder named Diagrams and save the class diagram.
- Add a README.md file to the root directory.

```
C:\campus\3rd\2 sem\Advanced Software Design\LibraryManagementSystem>README.md
```

- Added the files to Git.
- Commit the files with a descriptive message.

2. Create a Remote Repository on GitHub

- Logged in to GitHub and created a new repository.
- Linked the local repository to the remote.
- Pushed the initial code to the remote repository.

3. Collaborative Work with Git

- cloned the repository locally.

```
Microsoft Windows [Version 10.0.22631.4541]
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C:\campus\3rd\2 sem\Advanced Software Design\LibraryManagementSystem>git clone https://github.com/pasindu2001-SW/LibraryManagementSystem.git
Cloning into 'LibraryManagementSystem'...
remote: Enumerating objects: 26, done.
remote: Counting objects: 100% (26/26), done.
remote: Compressing objects: 100% (22/22), done.
remote: Total 26 (delta 6), reused 16 (delta 3), pack-reused 0 (from 0)
Receiving objects: 100% (26/26), 112.86 KiB | 542.00 KiB/s, done.
Resolving deltas: 100% (6/6), done.
```

- Made Changes by group members for the README.md.
- Branched.
- Committed Changes.

```

Microsoft Windows [Version 10.0.22631.4541]
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C:\Users\Achini\Desktop\Sem 06\Advanced Software Design>git clone https://github.com/pasindu2001-SW/LibraryManagementSystem.git
Cloning into 'LibraryManagementSystem'...
remote: Enumerating objects: 12, done.
remote: Counting objects: 100% (12/12), done.
remote: Compressing objects: 100% (10/10), done.
remote: Total 12 (delta 2), reused 10 (delta 1), pack-reused 0 (from 0)
Receiving objects: 100% (12/12), 107.97 KiB | 214.00 KiB/s, done.
Resolving deltas: 100% (2/2), done.

C:\Users\Achini\Desktop\Sem 06\Advanced Software Design>cd LibraryManagementSystem

C:\Users\Achini\Desktop\Sem 06\Advanced Software Design\LibraryManagementSystem>code .

C:\Users\Achini\Desktop\Sem 06\Advanced Software Design\LibraryManagementSystem>git checkout -b update-README
Switched to a new branch 'update-README'

C:\Users\Achini\Desktop\Sem 06\Advanced Software Design\LibraryManagementSystem>git add .

C:\Users\Achini\Desktop\Sem 06\Advanced Software Design\LibraryManagementSystem>git config --global user.email "pachini892@gmail.com"

C:\Users\Achini\Desktop\Sem 06\Advanced Software Design\LibraryManagementSystem>git commit -m "Updated README,...Update your part..."
[update-README de1ca71] Updated README,...Update your part...
1 file changed, 14 insertions(+)

```

-Pushed the Branch.

```

C:\Users\Achini\Desktop\Sem 06\Advanced Software Design\LibraryManagementSystem>git push -u origin update-README
Enumerating objects: 13, done.
Counting objects: 100% (13/13), done.
Delta compression using up to 12 threads
Compressing objects: 100% (7/7), done.
Writing objects: 100% (7/7), 1.96 KiB | 502.00 KiB/s, done.
Total 7 (delta 2), reused 1 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), completed with 1 local object.
To https://github.com/pasindu2001-SW/LibraryManagementSystem.git
   fe47e08..5ac1bff  update-README -> update-README
branch 'update-README' set up to track 'origin/update-README'.

```

4. Review and Merge

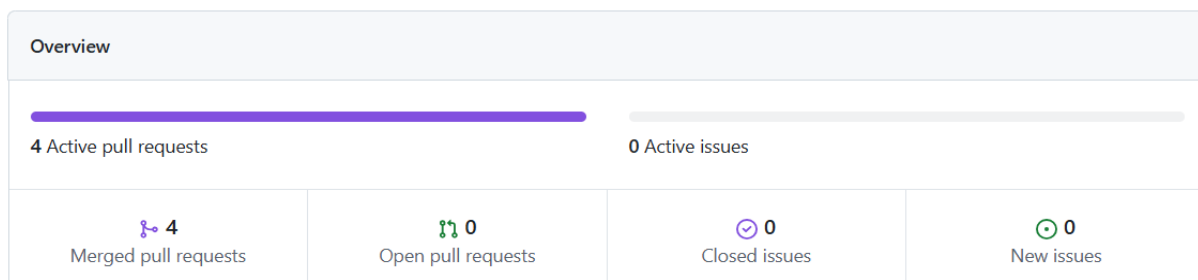
-Opened a pull request in GitHub to merge the update-class-diagram branch with the main branch.

-Assign a group member to review and approve the pull request.

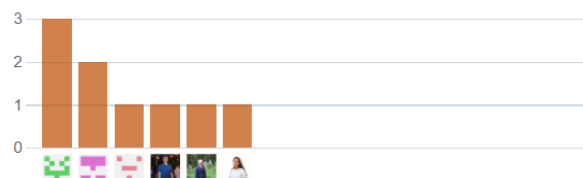
-Merged the branch and pull the latest changes to the local repository.

December 1, 2024 – December 8, 2024

Period: 1 week ▾



Excluding merges, **6 authors** have pushed **8 commits** to main and **9 commits** to all branches. On main, **0 files** have changed and there have been **0 additions** and **0 deletions**.



5. Conflict Resolution

- Intentionally edit the same part of the README.md file and commit changes on separate branches.
- Pushed both branches to the remote repository and attempted to merge them into the main.
- Resolve conflicts locally.

Challenges faced

- Git Workflow: Some team members may have encountered challenges in effectively using Git commands and collaborating on the project.
- Permission denied Error while pushing because the collaboration request from a group member had not accepted yet and Corrected it by after the it was accepted.

Key learnings from using Git

- facilitated collaboration among team members by enabling them to work on different parts of the project simultaneously and merge their changes efficiently.
- Git enabled us to track changes to the project over time, allowing for easy rollback and comparison of different versions.
- Importance of good communication and permission for smooth collaboration.