Tarlac State University
COLLEGE OF COMPUTER STUDIES

Case Study in Integrative Programming Technology 2

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Date: March 08, 2024

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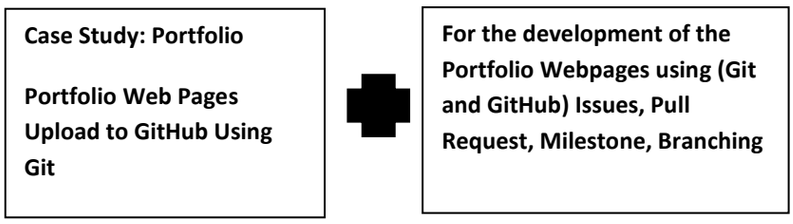
A. Definition

The Case Study you did (Static Website) upload the documentation and files in your GitHub repository and add a minimum of 3 more webpages to add in your repository during the development use Git and GitHub and create a documentation of all.



Requirements:

- Each member in your group will need to upload **a webpage**
- Create a **Pull Request** for each member in Github with comments.
- Create an **Issue** for each member in Github and comment.
- Create a **Milestone** for the group in Github.
- Create a branch for each member and merge it with your master in Github.

Define and describe how you use of each command with screenshot in your case study.

- ~~Git clone~~
- ~~Git Pull~~
- ~~Git Push~~
- ~~Git Fetch~~
- ~~Git Merge~~
- ~~Issue~~
- Pull Request
- ~~Milestone~~
- ~~Branch~~

Note: List the contributions of your group members

Remigio – Web page for landing page, Personal Webpage and Documentation

Pineda – Personal Webpage

Lopez – Personal Webpage

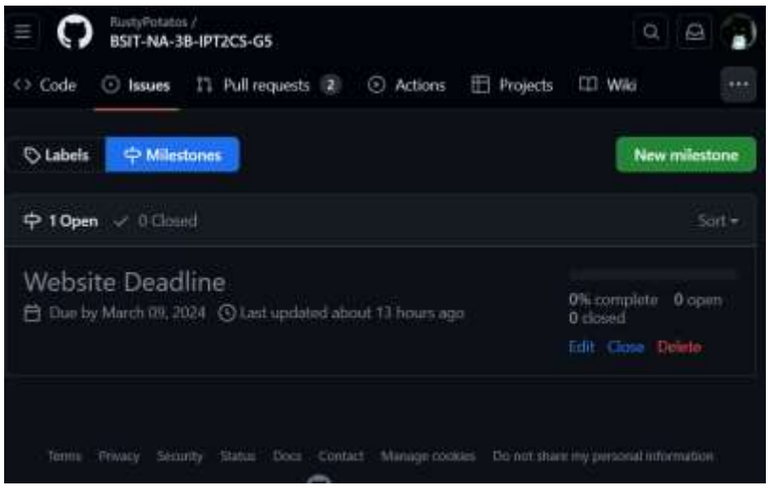
De Guzman – Personal Webpage

B. Case Analysis (Git and GitHub Workflow)

B.1 Documentation

Remote Repository (GitHub) **Creating a Milestone**

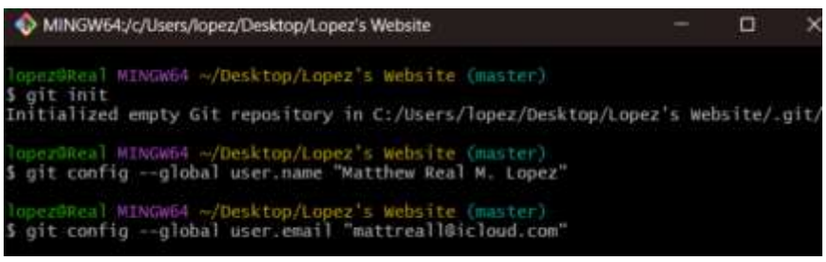
Delegated task: to keep on tract with the HTML from collaborators



Before the case study runs to its development cycle, the group decided to agree whenever the deadlines are. I am delegated to keep on tract the HTML files of my groupmates and the other elements of a webpage such as HTML, JavaScript and CSS are delegated to them as well. Using GitHub's Milestone feature, it tracks the progress on the group of issues or pull requests in a repository. To better manage the project, we can view detail about our milestones [1].

Local Repository (Git)

Setting Email and Username for Author

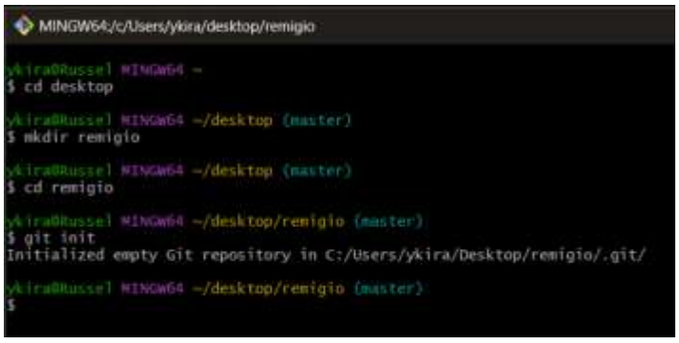


Git uses a username to associate commits with an identity. The Git username is not the same as the GitHub username [2].

Creating the profile's HTML file

This is our html profile; no other designs are implemented yet and basic information about are added. HTML is the standard markup language for Web pages. With HTML we can create our own website[3].

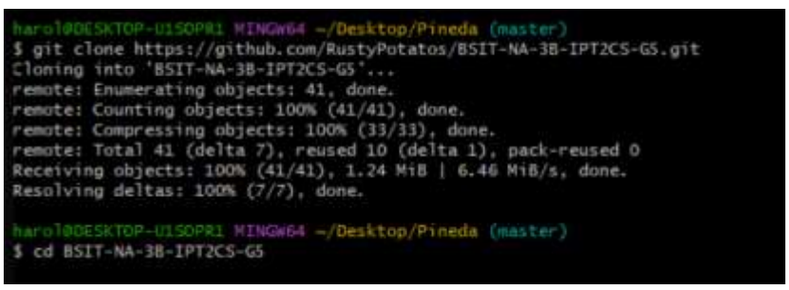
Creating and initializing local repository

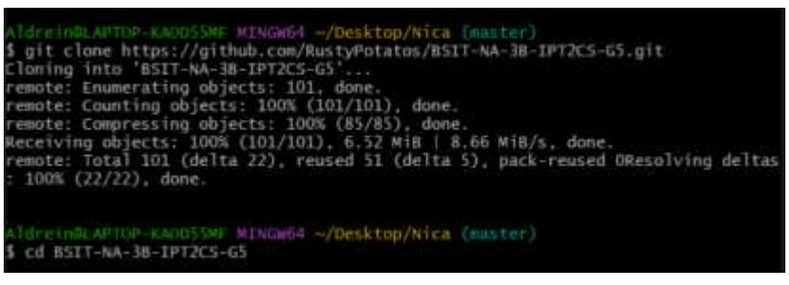


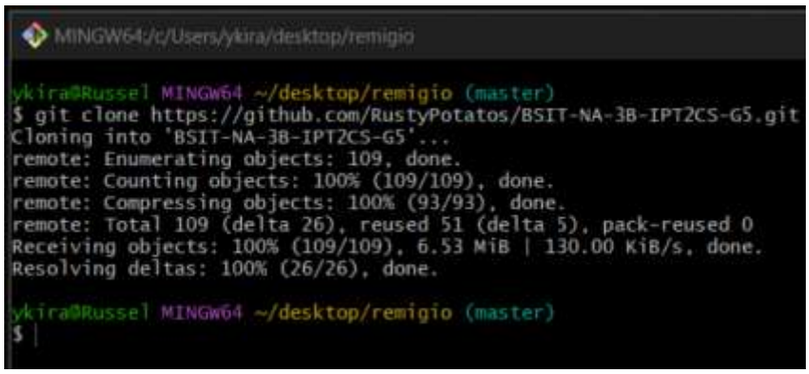
Creation of local working directory and initializing at as a git directory. Creating a local working directory and initializing it as a Git repository is fundamental for effective version control in our software development projects.

Cloning the repository from GitHub to local repository using bash terminal

Cloning can be achieved by accessing the github repository by clicking the Code and under HTTPS copy the link.



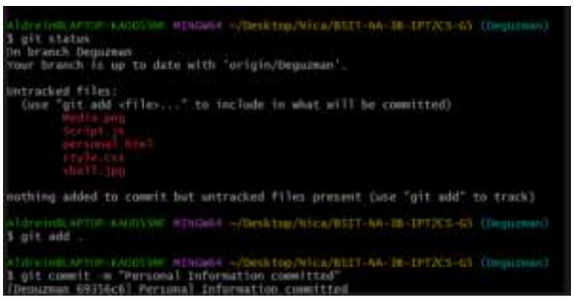




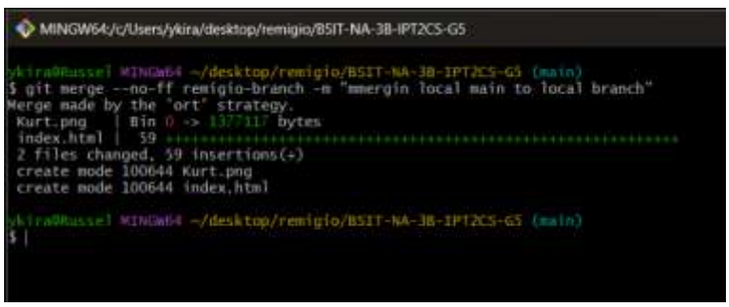
On the bash terminal type git clone and paste the link from github. Git clone is primarily used to point to an existing repo and make a clone or copy that repo at in a new directory, at another location. The original repository can be located on the local filesystem or on remote machine accessible supported protocols. The git clone command copies an existing Git Repository [4]. Accessing the repo by $cd folder-name in our case study it will be cd BSIT-NA-3B-IPTCS-G5.

Working on local-repo and creating a local-branch

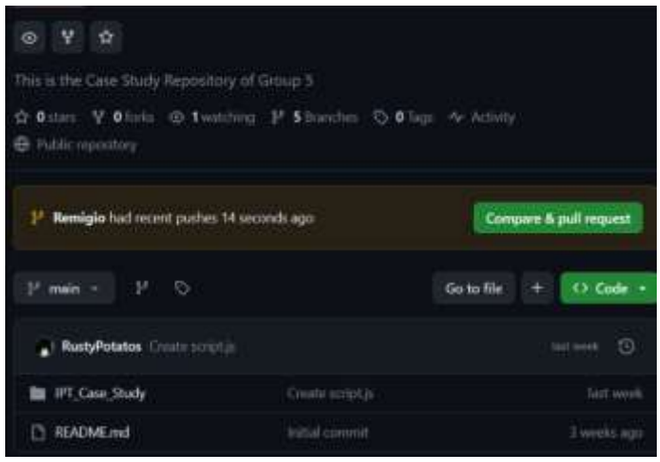
On this part of the study, we created a new branch under clone local repository. Branches allow you to develop features, fix bugs, or safely experiments with new ideas in a contained are of the repository [5].



The created html file was then pasted on the folder we created, this makes the files as untracked and by using the git command "*git add .*`" , the files are now tracked, using the git commit -m "message" then takes a snapshot of the current code and leaves a message for later documentation, git checkout main then moves us to the main branch.



Merging from local branch to local main. Merging is Git's way of putting a forked history back together again. The git merge command lets you take the independent lines of development created by git branch and integrate them into a single branch [6].

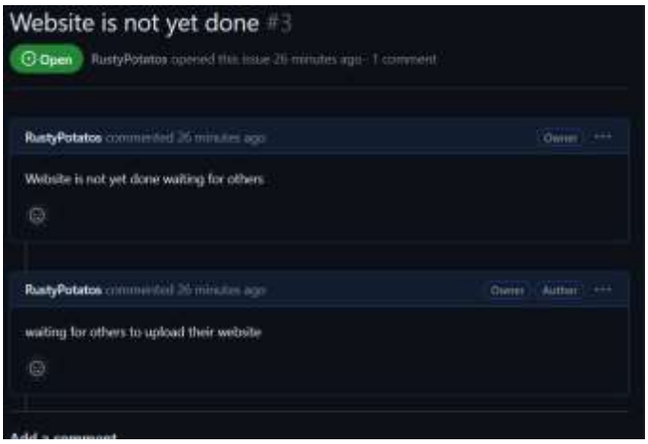


Pushing the local main to github branch, the command *git push origin HEAD:branch name* sends my local main repo to the specified github branch The git push command is used to upload local repository content to a remote repository. Pushing is how you transfer commits from your local repository to a remote repo [7].

The git fetch command downloads commits, files, and refs from a remote repository into your local repo[8].

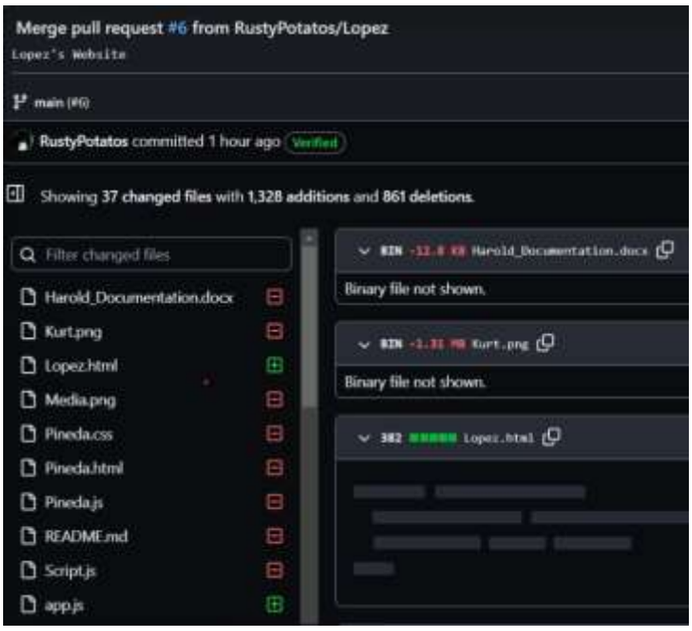
The figure above shows that the milestone is now closed.

Creating new Issue



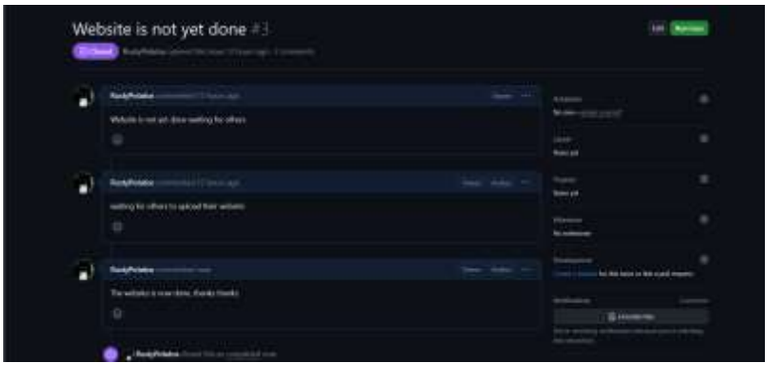
The issue that we encountered is that most of us is late in the website deadline so we use issue feature to notify all of us on the delay. GitHub Issues are items you can create in a repository to plan, discuss and track work. Issues are simple to create and flexible to suit a variety of scenarios. You can use issues to track work, give or receive feedback, collaborate on ideas or tasks, and efficiently communicate with others [9].

Problem in the repository



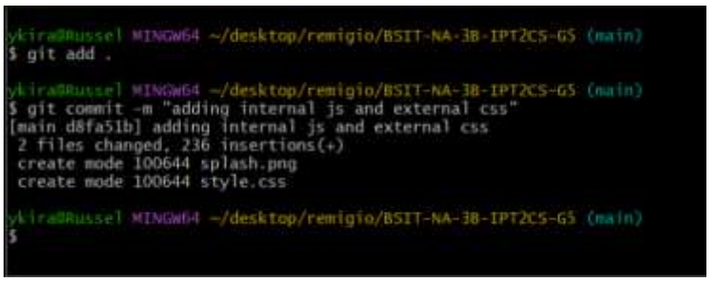
One problem we encountered is that after we merge all the files, we cannot see the merge file in the main branch. To address this problem, another branch was created to allot for final adjustments and touchups.

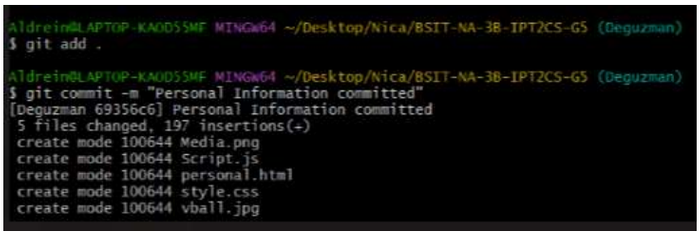
Addressing the Issue



To address the issue, we rushed all the task that we need to immediately finish out website.

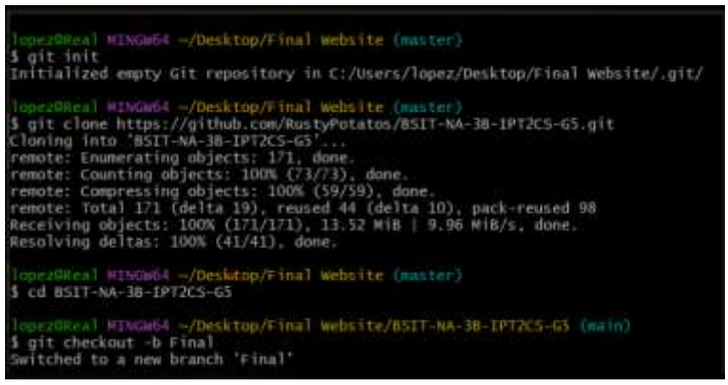
Adding CSS and Javascipt



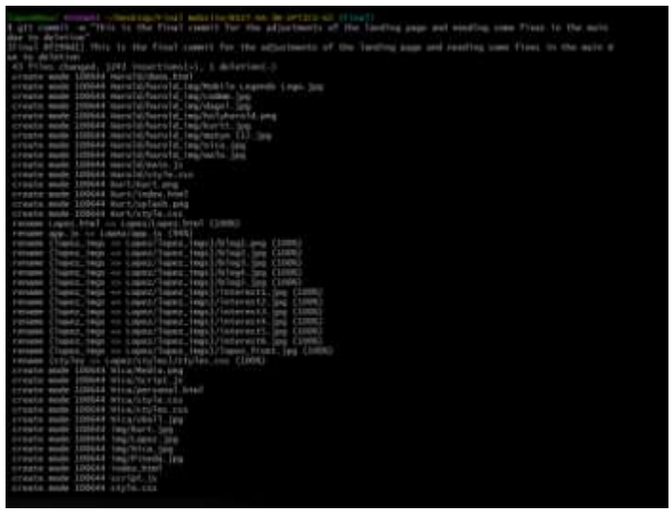


After ensuring that the HTML file is correct and working properly, it is time to design the webpage. Updating the initial html file and uploading the css and Javascript which we add, commit and push it again to our branch in github.

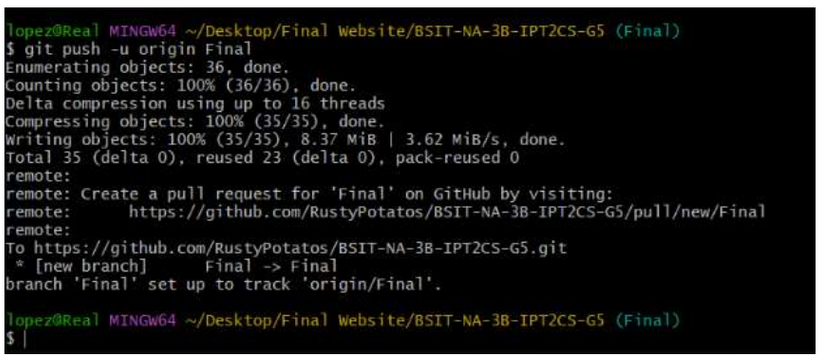
Addressing the problem to the repository



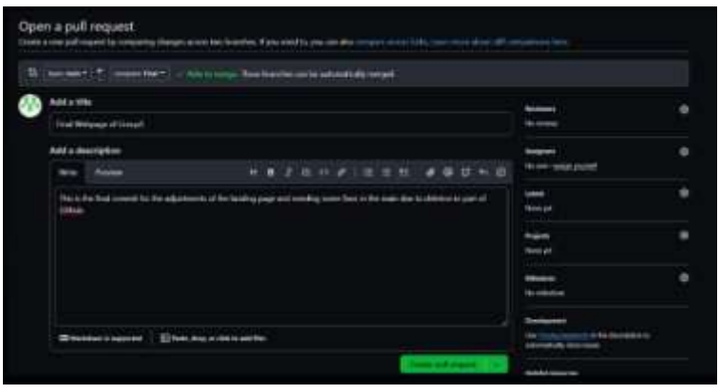
Mattew Lopez paste all the files no the created folder and he used “git add” command to add all the pasted files.



Committing Files.

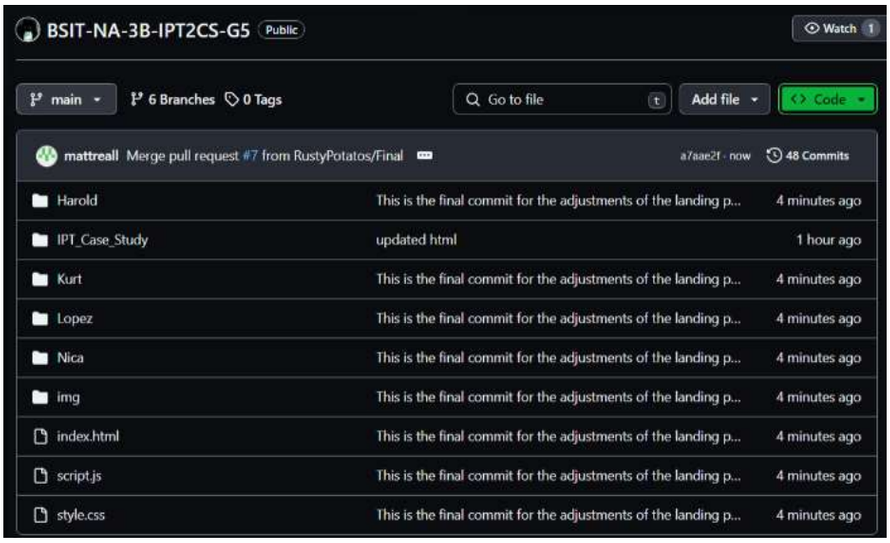


Pushing the files.



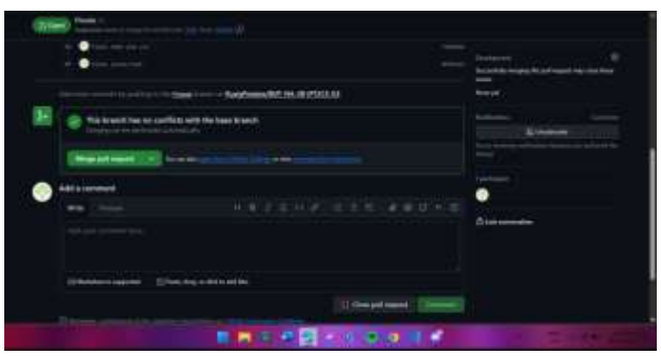
Creating pull requests.

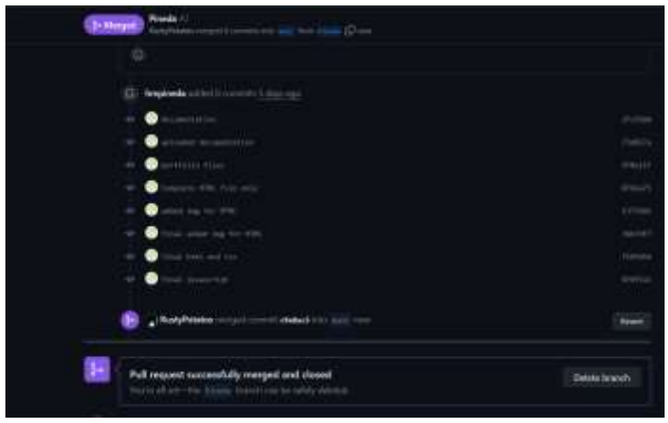
Merging to main.

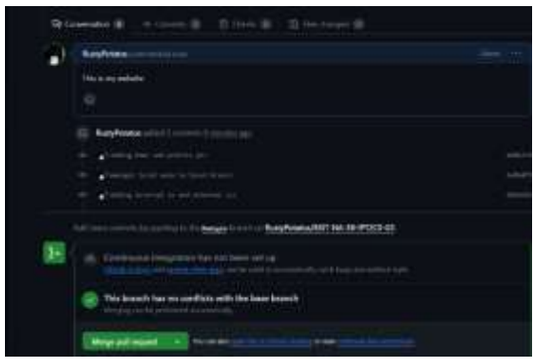


After the said problem, we successfully give solution and implement to the problem.

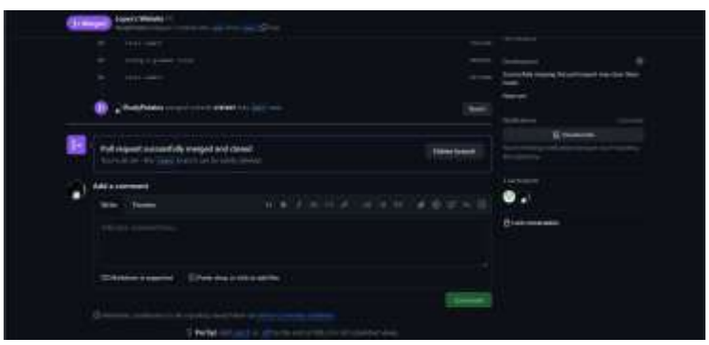
Merging Git Branches to Main

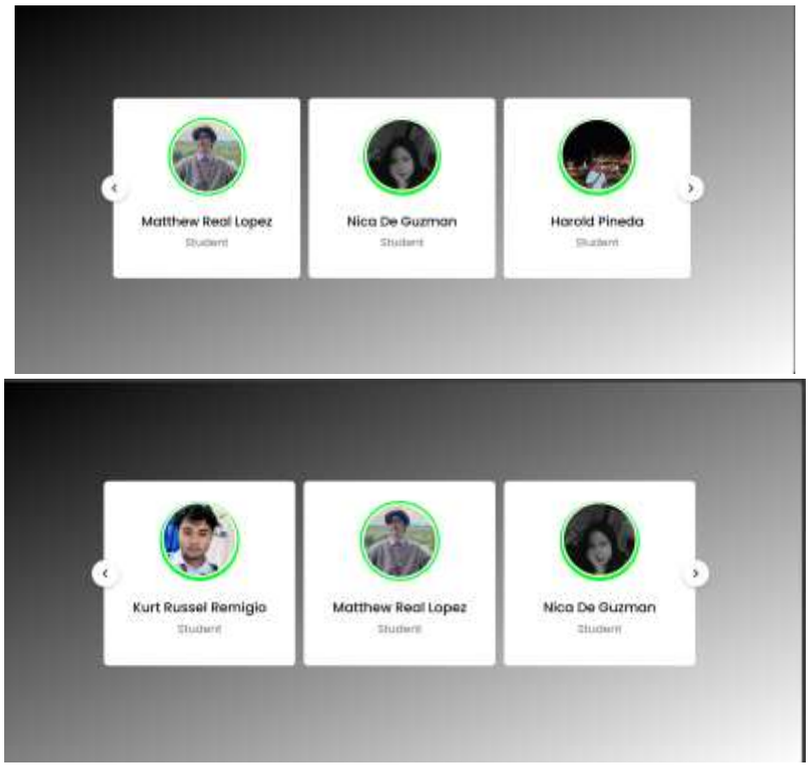



Pull request successfully merged and closed
Delete branch


This is my website
This branch has no conflicts with the base branch
Merge pull request

Remigio #4
This is my website
Pull request successfully merged and closed
Delete branch


Pull request successfully merged and closed
Delete branch
Add a comment



After the intensive checking by the collaborators, the last stage of application of the created branch is to merge with the github main branch. In this way, there are major changes to the main. In local repository we can merge our local branch to local main, the counterpart of merging in local is the github dedicated pull requests. Pull requests tells other about changes that pushed to a branch in a repository on Github[10].

References:

[1] “About milestones You can use milestones to track progress on groups of issues or,” p. 2024, 2024.

[2] G. Docs, “Setting your username in Git - User Documentation (2015-02-18 16-59-13)”.

[3] C. Picker, “Easy Learning with HTML " Try it Yourself " Test Yourself With Exercises Exercise :”.

[4] S. Development, “Git clone Purpose : repo-to-repo collaboration development copy”.

[5] GitHub, “About branches,” 2022, [Online]. Available: https://docs.github.com/en/pull-requests/collaborating-with-pull-requests/proposing-changes-to-your-work-with-pull-requests/about-branches

[6] S. Development, “Git merge How it works Confirm the receiving branch”.

[7] S. Development, “Git push Git push usage Git push discussion Git push and syncing Force pushing Default git push”.

[8] S. Development, “Git fetch How git fetch works with remote branches Git fetch examples git fetch a remote branch”.

[9] GitHub, “About issues,” 2022, [Online]. Available: https://docs.github.com/en/issues/tracking-your-work-with-issues/about-issues

[10] Github.com, “About pull requests - GitHub Docs,” 2023, [Online]. Available: https://docs.github.com/en/pull-requests/collaborating-with-pull-requests/proposing-changes-to-your-work-with-pull-requests/about-pull-requests%0Ahttps://docs.github.com/en/pull-requests/collaborating-with-pull-requests/proposing-changes-to-your-work-with-p

Grade Matrix:

Git Command	:	**20%**
GitHub Implement	:	**20%**
Documentation	:	**40%**
Webpage (Development)	:	**30%**
		100%