



Tarlac State University  
**COLLEGE OF COMPUTER STUDIES**



# Case Study in Integrative Programming Technology 2

Submitted By:  
De Guzman, Nica  
**Lopez, Matthew**  
**Pineda, Harold**  
**Remigio, Kurt Russel**

Submitted To:  
**Sir Axel Millet**

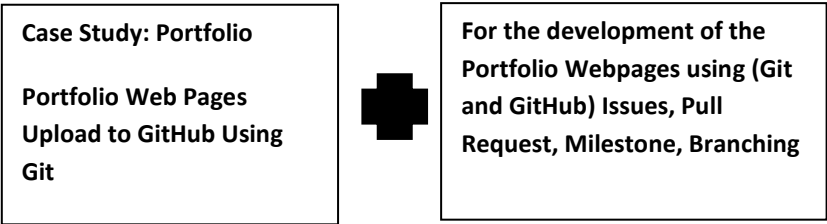
Date: March 08, 2024

# Table of Contents

- A. Definition ..... 3
- B. Case Analysis (Git and GitHub Workflow)..... 4
  - B.1 Documentation ..... 4

# 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

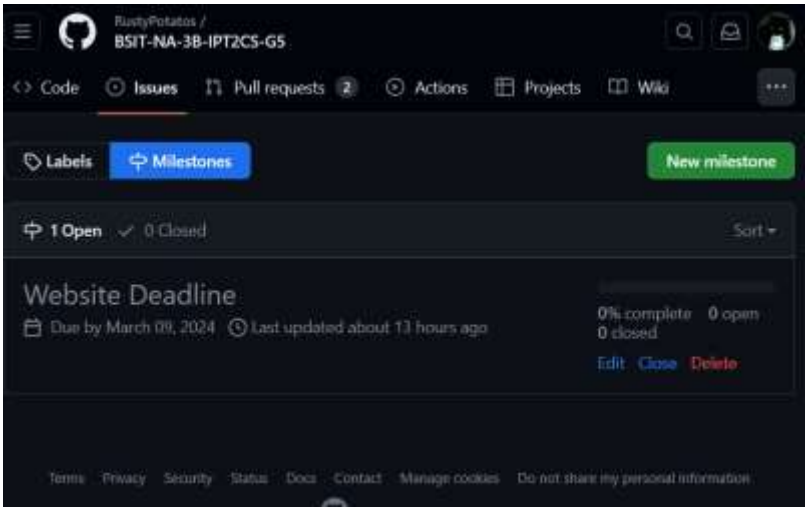
De Guzman – Personal Webpage

# 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

```
MINGW64/c/Users/ykira
ykira@Russel MINGW64 -
$ git config --global user.name "Kurt Russel Renigio"
ykira@Russel MINGW64 -
$ git config --global user.email "ykirarenigio14@gmail.com"
ykira@Russel MINGW64 -
$ |
```

```
harol@DESKTOP-U15OPR1 MINGW64 ~/Desktop/Pineda (master)
$ git config --global user.name Harold Pineda
harol@DESKTOP-U15OPR1 MINGW64 ~/Desktop/Pineda (master)
$ git config --global user.email haroldpineda0720@gmail.com
```

```
MINGW64/c/Users/lopez/Desktop/Lopez's Website
lopez@Real MINGW64 ~/Desktop/Lopez's Website (master)
$ git init
Initialized empty Git repository in C:/Users/lopez/Desktop/Lopez's Website/.git/
lopez@Real MINGW64 ~/Desktop/Lopez's Website (master)
$ git config --global user.name "Matthew Real M. Lopez"
lopez@Real MINGW64 ~/Desktop/Lopez's Website (master)
$ git config --global user.email "mattreal1@icloud.com"
```

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

```
MINGW64/c/Users/ykira/desktop/remigio

ykira@Russel MINGW64 ~
$ cd desktop

ykira@Russel MINGW64 ~/desktop (master)
$ mkdir remigio

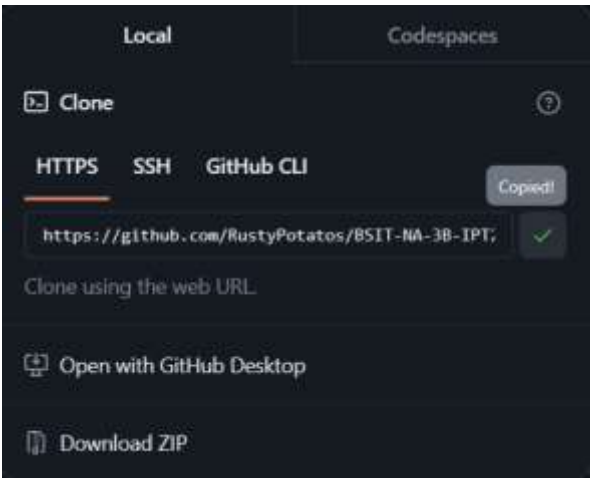
ykira@Russel MINGW64 ~/desktop (master)
$ cd remigio

ykira@Russel MINGW64 ~/desktop/remigio (master)
$ git init
Initialized empty Git repository in C:/Users/ykira/Desktop/remigio/.git/

ykira@Russel MINGW64 ~/desktop/remigio (master)
$
```

Creation of local working directory and initializing it 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.

```
horo@DESKTOP-U1SOPR1 MINGW64 ~/Desktop/Pineda (master)
$ git clone https://github.com/RustyPotatos/BSIT-NA-3B-IPT2CS-G5.git
Cloning into 'BSIT-NA-3B-IPT2CS-G5'...
remote: Enumerating objects: 41, done.
remote: Counting objects: 100% (41/41), done.
remote: Compressing objects: 100% (33/33), done.
remote: Total 41 (delta 7), reused 10 (delta 1), pack-reused 0
Receiving objects: 100% (41/41), 1.24 MiB | 6.46 MiB/s, done.
Resolving deltas: 100% (7/7), done.

horo@DESKTOP-U1SOPR1 MINGW64 ~/Desktop/Pineda (master)
$ cd BSIT-NA-3B-IPT2CS-G5

aldrein@LAPTOP-KA0D55MF MINGW64 ~/Desktop/Nica (master)
$ git clone https://github.com/RustyPotatos/BSIT-NA-3B-IPT2CS-G5.git
Cloning into 'BSIT-NA-3B-IPT2CS-G5'...
remote: Enumerating objects: 101, done.
remote: Counting objects: 100% (101/101), done.
remote: Compressing objects: 100% (85/85), done.
Receiving objects: 100% (101/101), 6.52 MiB | 8.66 MiB/s, done.
remote: Total 101 (delta 22), reused 51 (delta 5), pack-reused 0
Resolving deltas: 100% (22/22), done.

aldrein@LAPTOP-KA0D55MF MINGW64 ~/Desktop/Nica (master)
$ cd BSIT-NA-3B-IPT2CS-G5
```

```
MINGW64/c/Users/ykira/desktop/remigio

ykira@Russel MINGW64 ~/desktop/remigio (master)
$ git clone https://github.com/RustyPotatos/BSIT-NA-3B-IPT2CS-G5.git
Cloning into 'BSIT-NA-3B-IPT2CS-G5'...
remote: Enumerating objects: 109, done.
remote: Counting objects: 100% (109/109), done.
remote: Compressing objects: 100% (93/93), done.
remote: Total 109 (delta 26), reused 51 (delta 5), pack-reused 0
Receiving objects: 100% (109/109), 6.53 MiB | 130.00 KiB/s, done.
Resolving deltas: 100% (26/26), done.

ykira@Russel MINGW64 ~/desktop/remigio (master)
$ |
```

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

```
ykira@Russel MINGW64 ~/desktop/remigio (master)
$ cd BSIT-NA-3B-IPT2CS-G5

ykira@Russel MINGW64 ~/desktop/remigio/BSIT-NA-3B-IPT2CS-G5 (main)
$ git checkout -b remigio-branch
Switched to a new branch 'remigio-branch'

ykira@Russel MINGW64 ~/desktop/remigio/BSIT-NA-3B-IPT2CS-G5 (remigio-branch)
$ |
```

```
MINGW64/c/Users/harol/Desktop/Pineda/BSIT-NA-3B-IPT2CS-G5

harol@DESKTOP-U1SDP81 MINGW64 ~/Desktop/Pineda/BSIT-NA-3B-IPT2CS-G5 (main)
$ git checkout -b Pineda
Switched to a new branch 'Pineda'
```

```
Aldrein@LAPTOP-KA0D53MF MINGW64 ~/Desktop/Nica/BSIT-NA-3B-IPT2CS-G5 (main)
$ git switch Deguzman
Switched to a new branch 'Deguzman'
branch 'Deguzman' set up to track 'origin/Deguzman'.
```

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].

```
harol@DESKTOP-U1SDP81 MINGW64 ~/Desktop/Pineda/BSIT-NA-3B-IPT2CS-G5 (Pineda)
$ touch Harold_Documentation.docx

harol@DESKTOP-U1SDP81 MINGW64 ~/Desktop/Pineda/BSIT-NA-3B-IPT2CS-G5 (Pineda)
$ git status
On branch Pineda
Untracked files:
  (use "git add <file>..." to include in what will be committed)
  Harold_Documentation.docx

nothing added to commit but untracked files present (use "git add" to track)

harol@DESKTOP-U1SDP81 MINGW64 ~/Desktop/Pineda/BSIT-NA-3B-IPT2CS-G5 (Pineda)
$ git add .

harol@DESKTOP-U1SDP81 MINGW64 ~/Desktop/Pineda/BSIT-NA-3B-IPT2CS-G5 (Pineda)
$ git commit -m "documentation"
[Pineda 2fc939d] documentation
1 file changed, 0 insertions(+), 0 deletions(-)
```



```
MINGW64/c/Users/ykira/desktop/remigio/BSIT-NA-3B-IPT2CS-G5
ktra@Russel MINGW64 ~/desktop/remigio/BSIT-NA-3B-IPT2CS-G5 (remigio-branch)
$ git add .
ktra@Russel MINGW64 ~/desktop/remigio/BSIT-NA-3B-IPT2CS-G5 (remigio-branch)
$ git commit -m "adding html and profile pic"
[remigio-branch 4d5b2c9] adding html and profile pic
2 files changed, 59 insertions(+)
create mode 100644 kurt.png
create mode 100644 index.html
ktra@Russel MINGW64 ~/desktop/remigio/BSIT-NA-3B-IPT2CS-G5 (remigio-branch)
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
ktra@Russel MINGW64 ~/desktop/remigio/BSIT-NA-3B-IPT2CS-G5 (main)
$ |
```

```
ktra@Russel MINGW64 ~/Desktop/Wica/BSIT-NA-3B-IPT2CS-G5 (Dequzman)
$ git status
On branch Dequzman
Your branch is up to date with 'origin/Dequzman'.

Untracked files:
  (use "git add <File>..." to include in what will be committed)
    media.png
    script.js
    personal.html
    style.css
    shakti.jpg

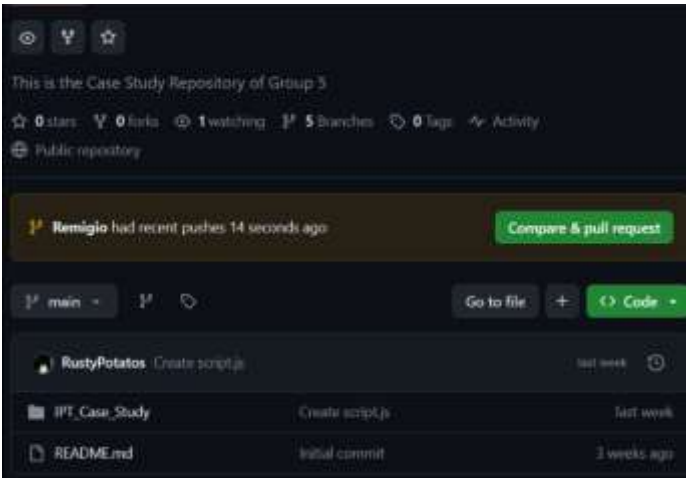
nothing added to commit but untracked files present (use "git add" to track)
ktra@Russel MINGW64 ~/Desktop/Wica/BSIT-NA-3B-IPT2CS-G5 (Dequzman)
$ git add .
ktra@Russel MINGW64 ~/Desktop/Wica/BSIT-NA-3B-IPT2CS-G5 (Dequzman)
$ git commit -m "Personal Information committed"
[Dequzman 6915c6] Personal information committed
```

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.

```
MINGW64/c/Users/ykira/desktop/remigio/BSIT-NA-3B-IPT2CS-G5
ktra@Russel MINGW64 ~/desktop/remigio/BSIT-NA-3B-IPT2CS-G5 (main)
$ git merge --no-ff remigio-branch -m "mergin local main to local branch"
Merge made by the 'ort' strategy.
 Kurt.png | Bin 0 -> 1377317 bytes
 index.html | 59 +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 2 files changed, 59 insertions(+)
 create mode 100644 Kurt.png
 create mode 100644 index.html
ktra@Russel MINGW64 ~/desktop/remigio/BSIT-NA-3B-IPT2CS-G5 (main)
$ |
```

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].

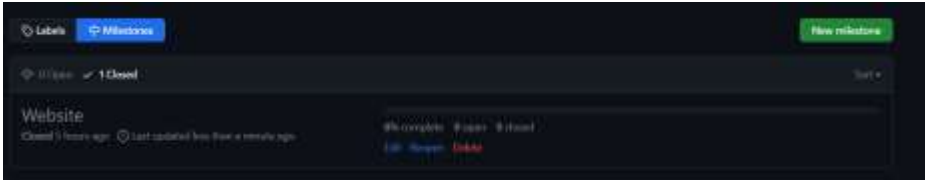
```
ykira@Russel: ~/InCub4 ~/desktop/remigio/BSIT-NA-3B-IPT2CS-G5 (main)
$ git push origin HEAD:Remigio
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 8 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (5/5), 1.30 MiB | 820.00 KiB/s, done.
Total 5 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), done.
remote:
remote: Create a pull request for 'Remigio' on GitHub by visiting:
remote:   https://github.com/RustyPotatos/BSIT-NA-3B-IPT2CS-G5/pull/new/Remigio
remote:
To https://github.com/RustyPotatos/BSIT-NA-3B-IPT2CS-G5.git
 * [new branch]      HEAD -> Remigio
ykira@Russel: ~/InCub4 ~/desktop/remigio/BSIT-NA-3B-IPT2CS-G5 (main)
$ !
```



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].

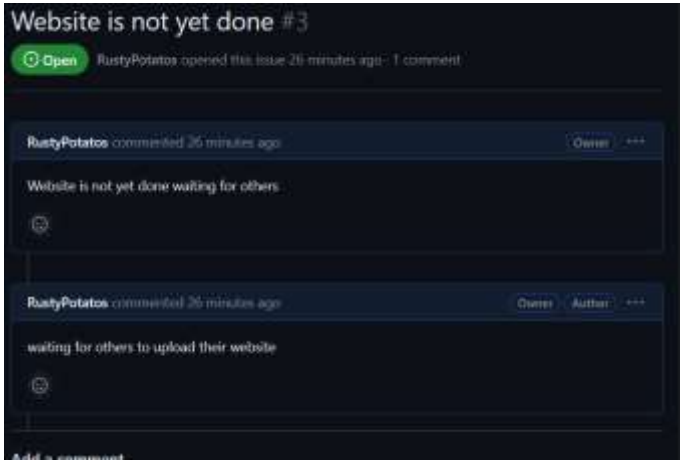
```
MINGW64/c/Users/ykira/desktop/remigio/BSIT-NA-3B-IPT2CS-G5
ykira@Russel MINGW64 ~/desktop/remigio/BSIT-NA-3B-IPT2CS-G5 (main)
$ git fetch https://github.com/RustyPotatos/BSIT-NA-3B-IPT2CS-G5.git Remigio
From https://github.com/RustyPotatos/BSIT-NA-3B-IPT2CS-G5
 * branch                Remigio      -> FETCH_HEAD
ykira@Russel MINGW64 ~/desktop/remigio/BSIT-NA-3B-IPT2CS-G5 (main)
$
```

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



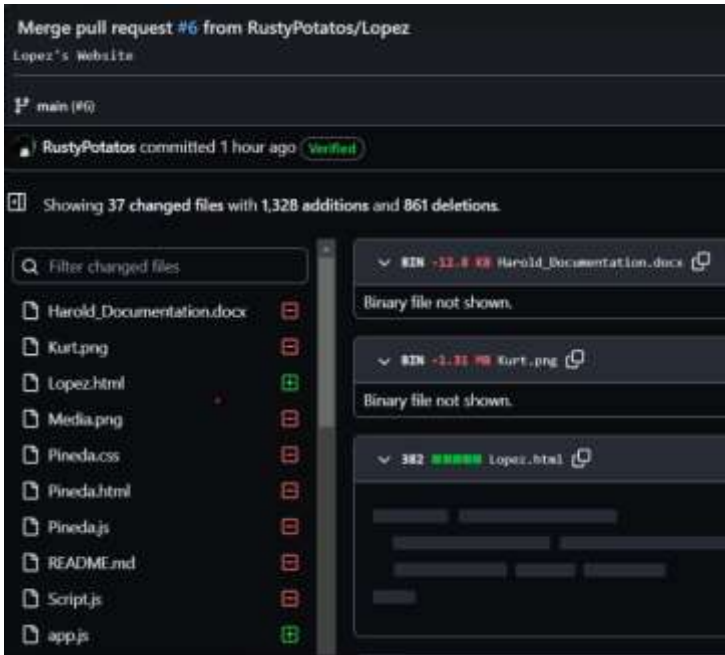
The figure above shows that the milestone is now closed.

### Creating new Issue



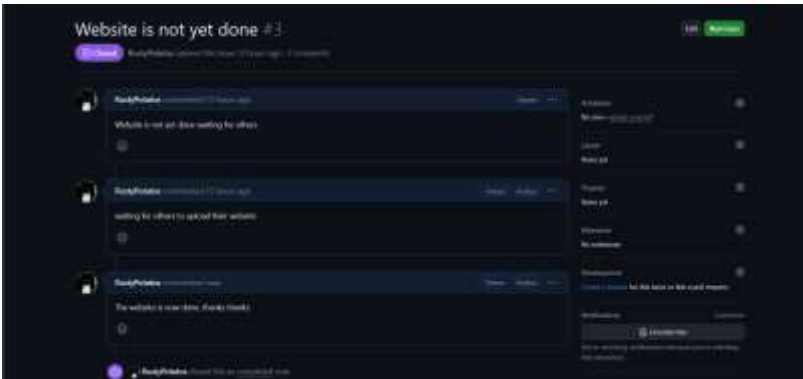
The issue that we encountered is that most of us is late in the website deadline so we use issue feature to notify all of us on the delay. GitHub Issues are items you can create in a repository to plan, discuss and track work. Issues are simple to create and flexible to suit a variety of scenarios. You 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 Javascript

```
ykira@Russel MINGW64 ~/desktop/remigio/BSIT-NA-3B-IPT2CS-G5 (main)
$ git add .

ykira@Russel MINGW64 ~/desktop/remigio/BSIT-NA-3B-IPT2CS-G5 (main)
$ git commit -m "adding internal js and external css"
[main d8fa51b] adding internal js and external css
2 files changed, 236 insertions(+)
create mode 100644 splash.png
create mode 100644 style.css

ykira@Russel MINGW64 ~/desktop/remigio/BSIT-NA-3B-IPT2CS-G5 (main)
$
```

```
harry@DESKTOP-UISOPM1 MINGW64 ~/Desktop/Pineda/BSIT-NA-3B-IPT2CS-G5 (Pineda)
$ echo "html file is harold" > Pineda.html

harry@DESKTOP-UISOPM1 MINGW64 ~/Desktop/Pineda/BSIT-NA-3B-IPT2CS-G5 (Pineda)
$ echo "css file is harold" > Pineda.css

harry@DESKTOP-UISOPM1 MINGW64 ~/Desktop/Pineda/BSIT-NA-3B-IPT2CS-G5 (Pineda)
$ echo "js file is harold" > Pineda.js

harry@DESKTOP-UISOPM1 MINGW64 ~/Desktop/Pineda/BSIT-NA-3B-IPT2CS-G5 (Pineda)
$ git add .
warning: in the working copy of 'Pineda.css', LF will be replaced by CRLF the ne
```

```
aldreim@LAPTOP-KAOD55MF MINGW64 ~/Desktop/Nica/BSIT-NA-3B-IPT2CS-G5 (Deguzman)
$ git add .

aldreim@LAPTOP-KAOD55MF MINGW64 ~/Desktop/Nica/BSIT-NA-3B-IPT2CS-G5 (Deguzman)
$ git commit -m "Personal Information committed"
[Deguzman 69356c6] Personal Information committed
5 files changed, 197 insertions(+)
create mode 100644 Media.png
create mode 100644 Script.js
create mode 100644 personal.html
create mode 100644 style.css
create mode 100644 vball.jpg
```

```
lapez@Rus MINGW64 ~/Desktop/Lopez's website/BSIT-NA-3B-IPT2CS-G5 (Lopez)
$ git add .

lapez@Rus MINGW64 ~/Desktop/Lopez's website/BSIT-NA-3B-IPT2CS-G5 (Lopez)
$ git commit -m "this is the v2 version of my webpage with CSS and JS being crea
ted"
[Lopez 1de2890] this is the v2 version of my webpage with CSS and JS being creat
ed
3 files changed, 192 insertions(+), 3 deletions(-)
create mode 100644 app.js
create mode 100644 styles.css

lapez@Rus MINGW64 ~/Desktop/Lopez's website/BSIT-NA-3B-IPT2CS-G5 (Lopez)
$ git push -u origin Lopez
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 16 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 2.73 KiB | 2.73 MiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), push-reused 0
To https://github.com/RuskyPotato/BSIT-NA-3B-IPT2CS-G5.git
 0a175aa..1de2890 Lopez -> Lopez
branch 'Lopez' set up to track 'origin/Lopez'
```

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

```

lopez@Real MINGW64 ~/Desktop/Final Website (master)
$ git init
Initialized empty Git repository in C:/Users/lopez/Desktop/Final Website/.git/

lopez@Real MINGW64 ~/Desktop/Final Website (master)
$ git clone https://github.com/RustyPotatos/BSIT-NA-38-IPT2C5-G5.git
Cloning into 'BSIT-NA-38-IPT2C5-G5'...
remote: Enumerating objects: 171, done.
remote: Counting objects: 100% (73/73), done.
remote: Compressing objects: 100% (59/59), done.
remote: Total 171 (delta 10), reused 44 (delta 10), pack-reused 98
Receiving objects: 100% (171/171), 13.52 MiB | 9.96 MiB/s, done.
Resolving deltas: 100% (41/41), done.

lopez@Real MINGW64 ~/Desktop/Final Website (master)
$ cd BSIT-NA-38-IPT2C5-G5

lopez@Real MINGW64 ~/Desktop/Final Website/BSIT-NA-38-IPT2C5-G5 (main)
$ git checkout -b Final
Switched to a new branch 'Final'

```

```
lopez@Real MINGW64 ~/Desktop/Final website/BSIT-NA-3B-IPT2CS-G5 (Final)
$ git add .
warning: in the working copy of 'Lopez/Lopez.html', LF will be replaced by CRLF
the next time Git touches it
warning: in the working copy of 'Lopez/app.js', LF will be replaced by CRLF the
next time Git touches it
warning: in the working copy of 'Lopez/styles/styles.css', LF will be replaced b
y CRLF the next time Git touches it
warning: in the working copy of 'Nica/Script.js', LF will be replaced by CRLF th
e next time Git touches it
warning: in the working copy of 'Nica/personal.html', LF will be replaced by CRL
F the next time Git touches it
warning: in the working copy of 'Nica/styles.css', LF will be replaced by CRLF t
he next time Git touches it
```

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

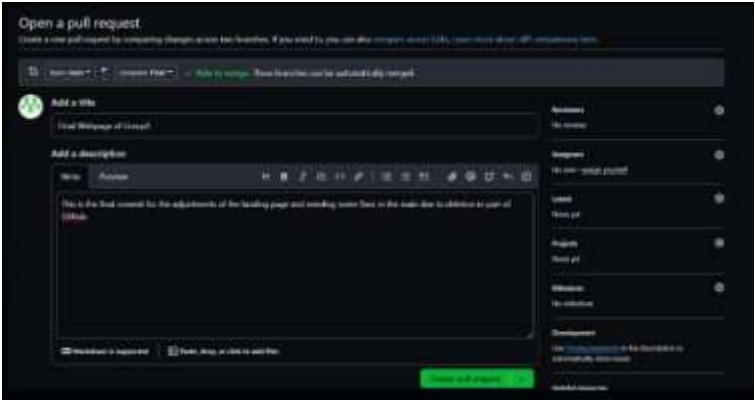
[illegible]

## Committing Files.

```
lopez@Real MINGW64 ~/Desktop/Final Website/BSIT-NA-3B-IPT2CS-G5 (Final)
$ git push -u origin Final
Enumerating objects: 36, done.
Counting objects: 100% (36/36), done.
Delta compression using up to 16 threads
Compressing objects: 100% (35/35), done.
Writing objects: 100% (35/35), 8.37 MiB | 3.62 MiB/s, done.
Total 35 (delta 0), reused 23 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'Final' on GitHub by visiting:
remote:   https://github.com/RustyPotatos/BSIT-NA-3B-IPT2CS-G5/pull/new/Final
remote:
To https://github.com/RustyPotatos/BSIT-NA-3B-IPT2CS-G5.git
 * [new branch]      Final -> Final
branch 'Final' set up to track 'origin/Final'.

lopez@Real MINGW64 ~/Desktop/Final Website/BSIT-NA-3B-IPT2CS-G5 (Final)
$ |
```

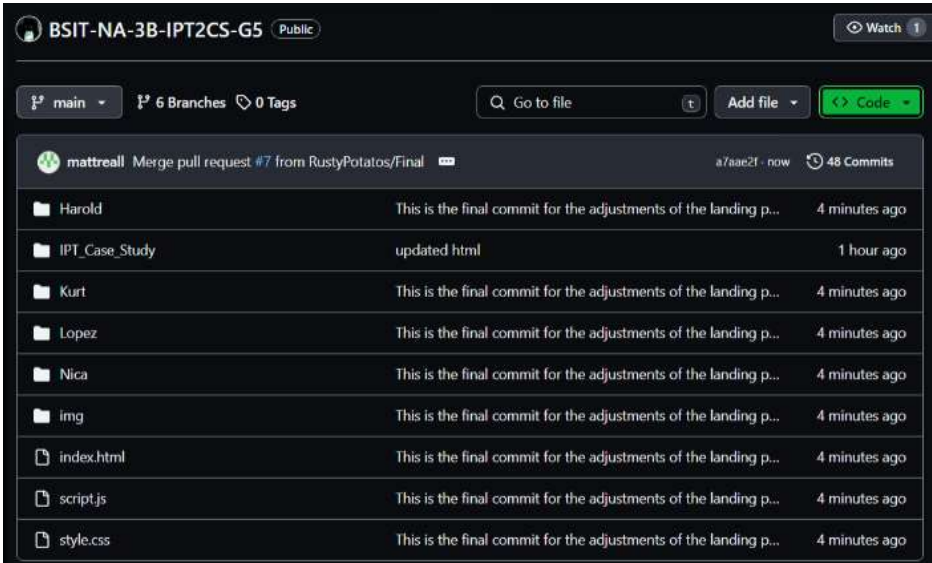
Pushing the files.



Creating pull requests.

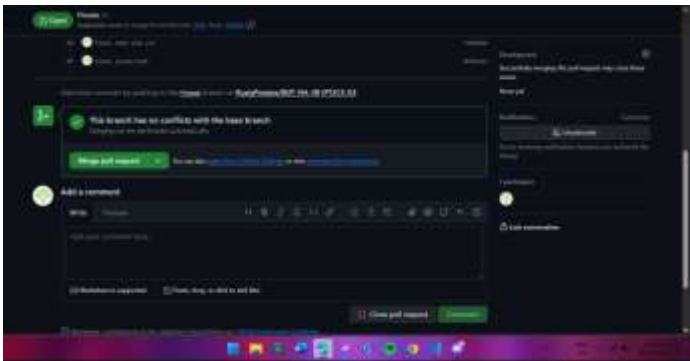


Merging to main.

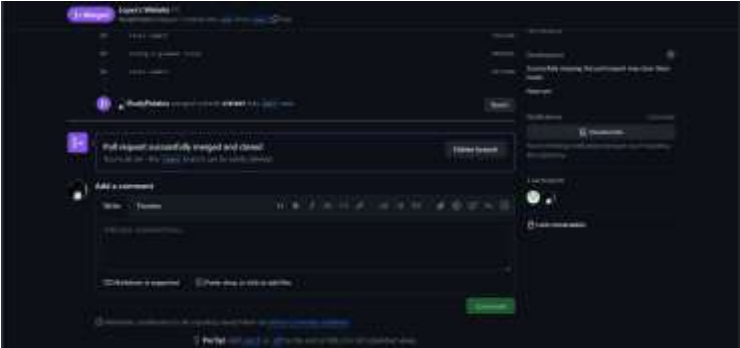
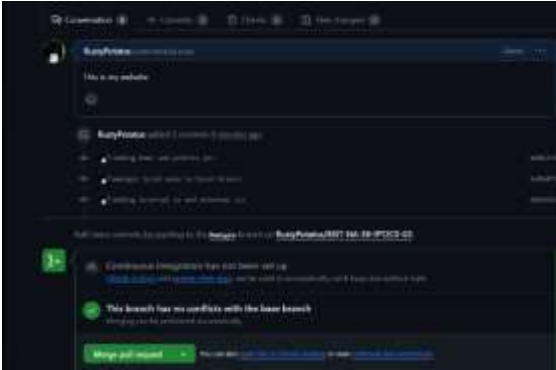
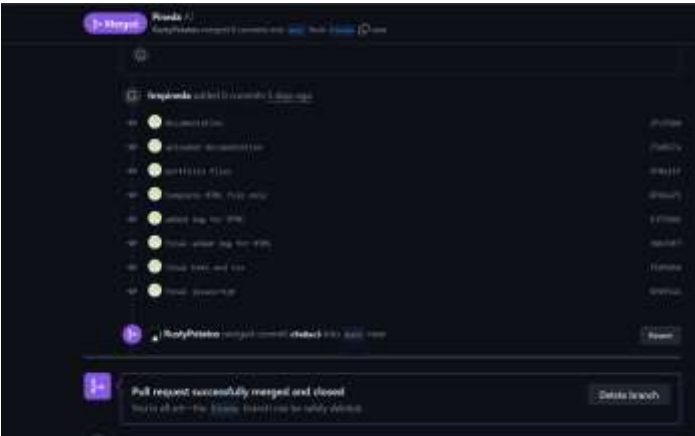


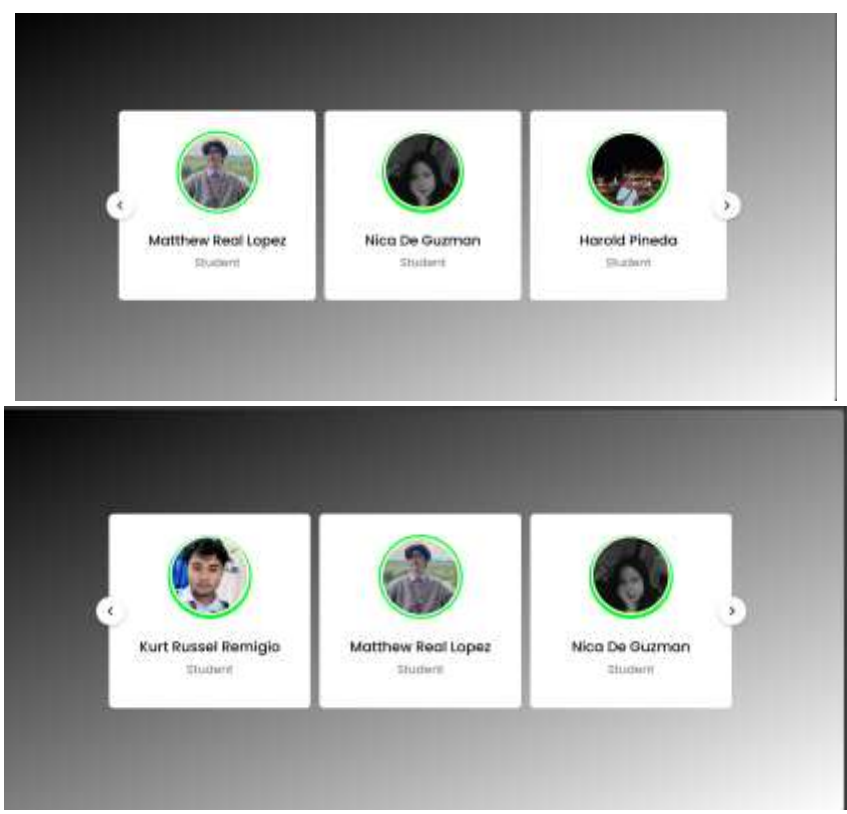
After the said problem, we successfully give solution and implement to the problem.

Merging Git Branches to Main









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	:	<b>20%</b>
GitHub Implement	:	<b>20%</b>
Documentation	:	<b>40%</b>
Webpage (Development)	:	<b>30%</b>
		<hr/>
		<b>100%</b>