Continuing Education Program
Center for Computing and Information Technology
Fakultas Teknik Universitas Indonesia

Using GitHub and Jenkins for Website Hotel

Group 3

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Class	:	3SC4

CEP CCIT

FAKULTAS TEKNIK UNIVERSITAS INDONESIA

2019

PROJECT ON

Using GitHub and Jenkins for Website Hotel

Developed by

1. **Ryan Ibrahim Pratama**
2. **Muhammad Farhan Alfikri**

Using GitHub and Jenkins for Website Hotel

Batch Code : 3SC4

Start Date : January 25th 2021

End Date : January 28th 2021

Name of Faculty : Mr. Tri Agus Riyadi, S.Kom, M.T

Names of Developer :

1. Ryan Ibrahim Pratama
2. Muhammad Farhan Alfikri

Date of Submission: January 28th 2021

CERTIFICATE

This is to certify that this report titled “Using GitHub and Jenkins for Website Hotel” embodies the original work done by Ryan Ibrahim Pratama and Farhan. Project in partial fulfillment of their course requirement at NIIT.

Coordinator:

Mr. Tri Agus Riyadi, S.Kom, M.T

ACKNOWLEDGEMENT

First of all, thanks to Almighty God because of the help of God, authors finished writing the paper entitled "Using GitHub and Jenkins for Website Hotel" right in the calculated time.

The purpose in writing this paper is to fulfill the assignment that given by Mr. Tri Agus Riyadi, S.Kom, M.T as lecturer in CEP-CCIT FTUI.

In arranging this paper, the writer truly get lots challenges and obstructions but with help of many individuals who can't be mentioned one by one, those obstructions could have passed. Writer also realized there are still many mistakes in process of writing this paper.

Because of that, the writer says thank to all individuals who helps in the process of writing this paper. Hopefully God replies all helps and bless all. The writer realized that this paper is still not perfect in arrangement and the content. Then the writer hopes the criticism from the readers can help the writer in perfecting the next paper. Last but not the least hopefully, this paper can help the readers to gain more knowledge about This project.

SYSTEM ANALYSIS

System Summary:

The project entitled "Using GitHub and Jenkins for Hotel Websites" was created so that developers can more easily work in groups, namely collaborating with other developers in an orderly and neat manner.

This program is made to store files that have been created and edited simultaneously with other developers. In this writing, the author uses html and css files that are integrated with GitHub and Jenkins.

on GitHub the developer can develop files simultaneously, and in Jenkins the developer can see the final build of the project.

TECHNOLOGY USED

Technology used to support the project:

1. GitHub

GitHub is a development platform. From open source to business, you can host and review code, manage projects and build software. GitHub is a shared web host service for software development projects that uses Git version control systems and internet hosting services. It is widely used for computer code.

2. Git Bash

Git for Windows provides a Bash emulation used to run Git from the command line. Bash is an acronym for Bourne Again Shell. A shell is a terminal application used to interface with an operating system through written commands.

3. Jenkins

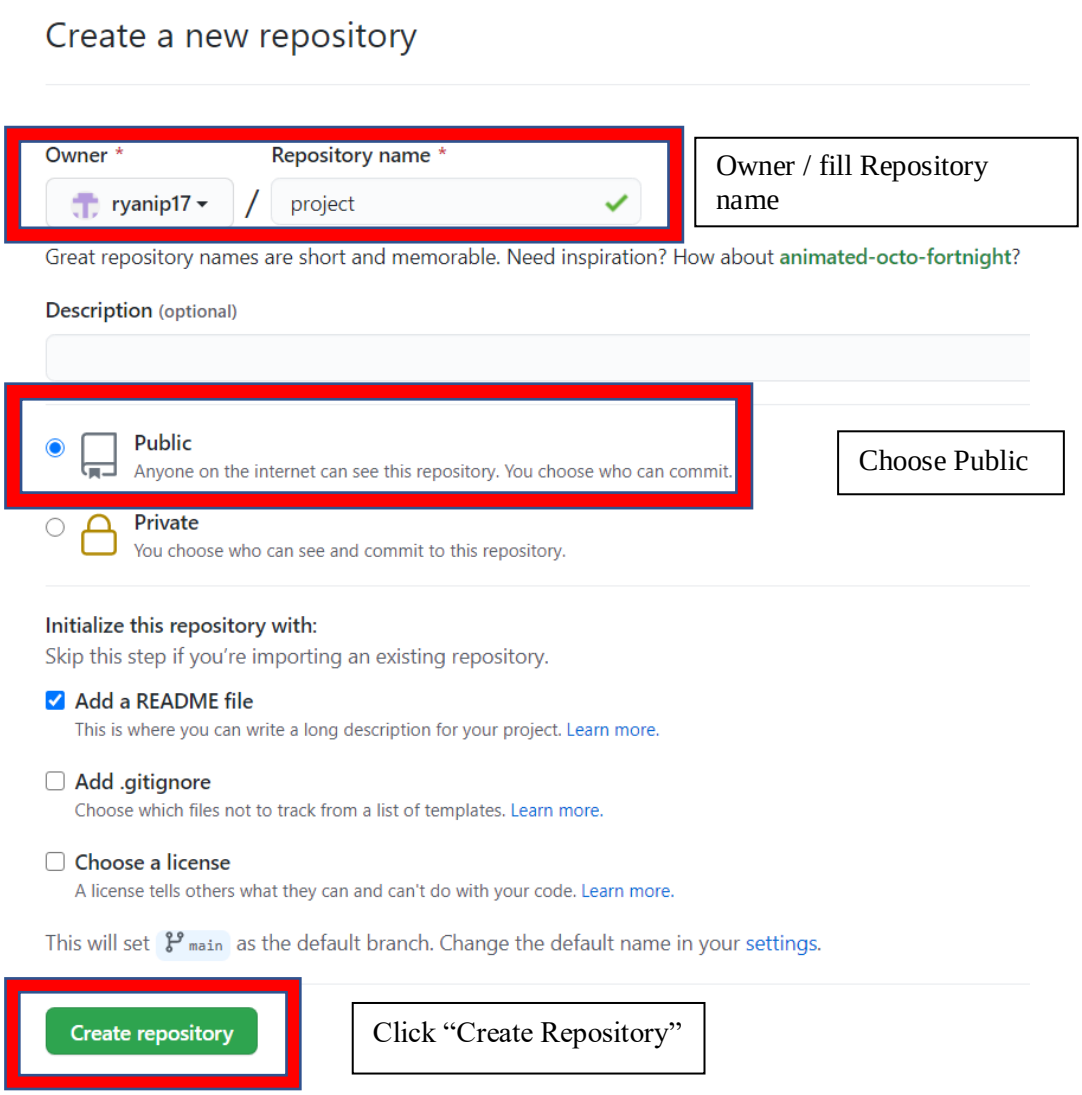
Jenkins is the leading open source automation server, Jenkins provides hundreds of plugins to support building, deploying and automating any project.

It is a server-based application and requires a web server like Apache Tomcat. The reason Jenkins became so popular is that of its monitoring of repeated tasks which arise during the development of a project. For example, if your team is developing a project, Jenkins will continuously test your project builds and show you the errors in early stages of your development.

By using Jenkins, software developer can accelerate their software development process, as Jenkins can automate build and test at a rapid
rate.

DEVOPS IMPLEMENTATION

GitHub Repository



Owner / fill Repository name

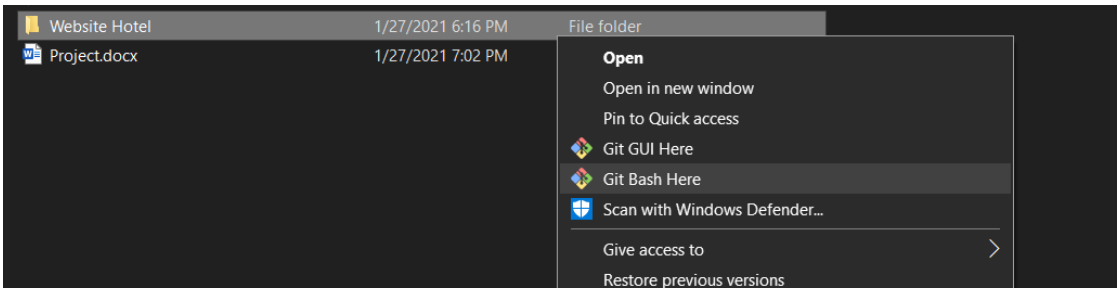
Choose Public

Click "Create Repository"

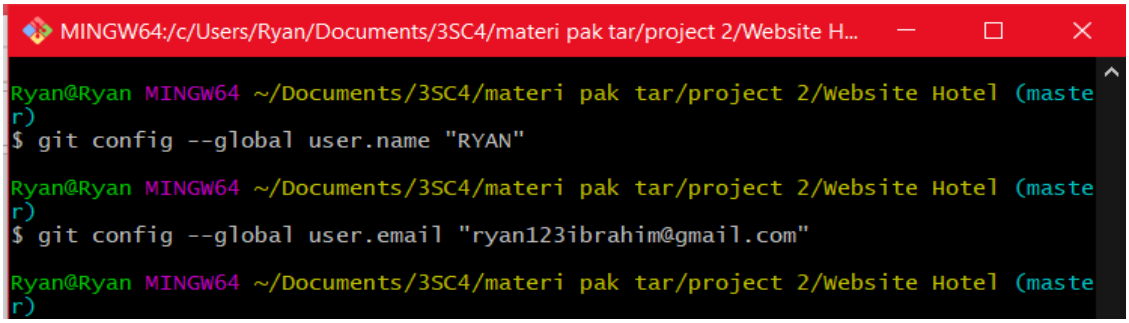
DEVOPS IMPLEMENTATION

Runnig Git Bash

1. Click “Git Bash Here” on the file folder.

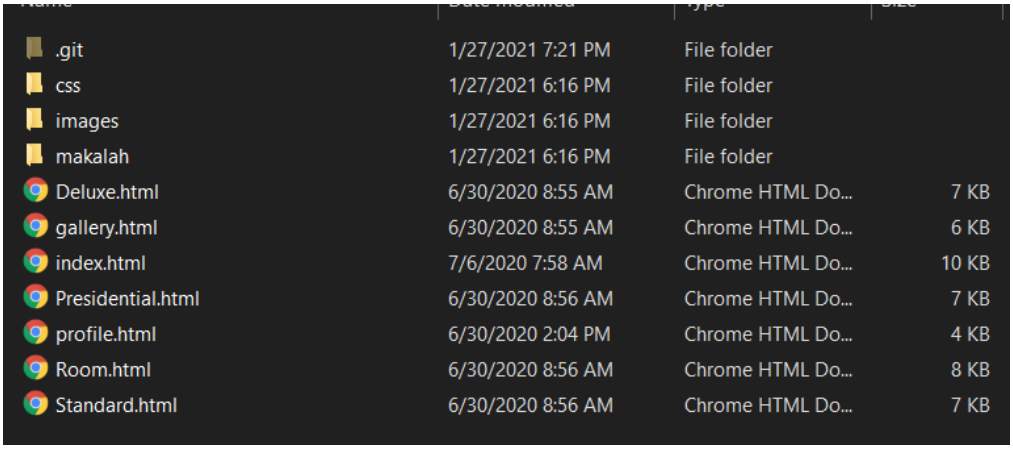


2. Command for configuring name and email



3. Create a git repository on files, this command is used to start a new repository.

4. Fill in the file with the project.



DEVOPS IMPLEMENTATION

5. Run “git status” command, This command lists all the files that have to be committed.

```
Ryan@Ryan MINGW64 ~/Documents/3SC4/materi pak tar/project 2/Website Hotel (maste
r)
$ git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        Deluxe.html
        Presidential.html
        Room.html
        Standard.html
        css/
        gallery.html
        images/
        index.html
        makalah/
        profile.html

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

6. Run the command "git add." to add all inserted source files.

```
Ryan@Ryan MINGW64 ~/Documents/3SC4/materi pak tar/project 2/Website Hotel (master)
$ git add .
```

7. Then, run the command "git commit -m" "First Commit (add all source file)"

```
Ryan@Ryan MINGW64 ~/Documents/3SC4/materi pak tar/project 2/Website Hotel (master)
$ git commit -m "First Commit (add all soruce file)"
[master (root-commit) a5f736c] First Commit (add all soruce file)
 50 files changed, 2166 insertions(+)
 create mode 100644 Deluxe.html
 create mode 100644 Presidential.html
 create mode 100644 Room.html
 create mode 100644 Standard.html
 create mode 100644 css/booking.css
 create mode 100644 css/footer.css
 create mode 100644 css/gallery.css
 create mode 100644 css/profile.css
 create mode 100644 css/room.css
```

8. Run the command "git log" to see the status of any additions / changes that have been made.

```
Ryan@Ryan MINGW64 ~/Documents/3SC4/materi pak tar/project 2/Website Hotel (master)
$ git log
commit a5f736cd4cd159626462ed51fba5839b42fc8dc7 (HEAD -> master)
Author: RYAN <ryan123ibrahim@gmail.com>
Date:   Wed Jan 27 19:52:11 2021 +0700

    First Commit (add all soruce file)
```

9. Attempting to modify the contents of the file. Then run the command "git status" to see if any files were edited.

```
Ryan@Ryan MINGW64 ~/Documents/3SC4/materi pak tar/project 2/Website Hotel (master)
$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   index.html
```

10. Run the command "git add index.html" then give it the commit, and we can see it through the command "git log".

```
Ryan@Ryan MINGW64 ~/Documents/3SC4/materi pak tar/project 2/Website Hotel (master)
$ git add index.html

Ryan@Ryan MINGW64 ~/Documents/3SC4/materi pak tar/project 2/Website Hotel (master)
$ git commit -m "Second commit (Modified file index.html)"
[master 252c03f] Second commit (Modified file index.html)
 1 file changed, 1 insertion(+), 1 deletion(-)

Ryan@Ryan MINGW64 ~/Documents/3SC4/materi pak tar/project 2/Website Hotel (master)
$ git log
commit 252c03f0b8289d95c6f84dc35a9516a793a7b8be (HEAD -> master)
Author: RYAN <ryan123ibrahim@gmail.com>
Date:   Wed Jan 27 20:08:39 2021 +0700

    Second commit (Modified file index.html)

commit a5f736cd4cd159626462ed51fba5839b42fc8dc7
Author: RYAN <ryan123ibrahim@gmail.com>
Date:   Wed Jan 27 19:52:11 2021 +0700

    First Commit (add all soruce file)
```

11. Run the command "git diff (id commit)" to see the detailed modification that was changed.

```
Ryan@Ryan MINGW64 ~/Documents/3SC4/materi pak tar/project 2/Website Hotel (master)
$ git diff a5f736cd4cd159626462ed51fba5839b42fc8dc7
diff --git a/index.html b/index.html
index f23f461..f7d2081 100644
--- a/index.html
+++ b/index.html
@@ -32,7 +32,7 @@
         <div class="background" style="margin: 0;">
             <img src="images/bg3.jpg" width="1519" >
             <div class="text1">
-                <h2>Quality is priority</h2>
+                <h2>Quality is priority!</h2>
                 <hr>
              </div>
         </div>
```

DEVOPS IMPLEMENTATION

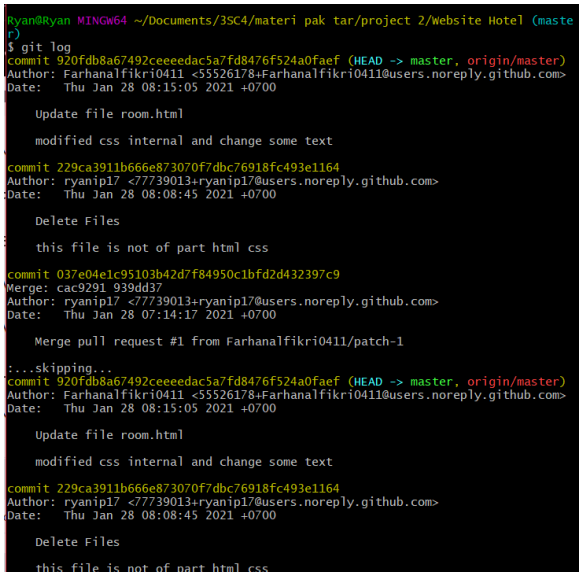
12. Remote to the GitHub repository by executing the command "git remote add origin (repository address)". Then, run the "git push -u origin main" command to enter data into the repository.

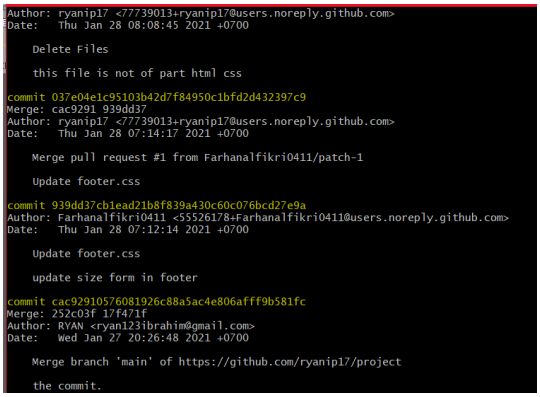
```
Ryan@Ryan MINGW64 ~/Documents/3SC4/materi pak tar/project 2/Website Hotel (master)
$ git remote add origin https://github.com/ryanip17/project.git

Ryan@Ryan MINGW64 ~/Documents/3SC4/materi pak tar/project 2/Website Hotel (master)
$ git branch -M main

Ryan@Ryan MINGW64 ~/Documents/3SC4/materi pak tar/project 2/Website Hotel (main)
$ git push -u origin main
Enumerating objects: 60, done.
Counting objects: 100% (60/60), done.
Delta compression using up to 8 threads
Compressing objects: 100% (59/59), done.
Writing objects: 100% (59/59), 21.34 MiB | 255.00 KiB/s, done.
Total 59 (delta 9), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (9/9), done.
To https://github.com/ryanip17/project.git
   17f471f..cac9291  main -> main
Branch 'main' set up to track remote branch 'main' from 'origin'.
```

13. When the developer run “git log” after modified the file with 2 user developer, and pull the data from github, and the developer can see the log.

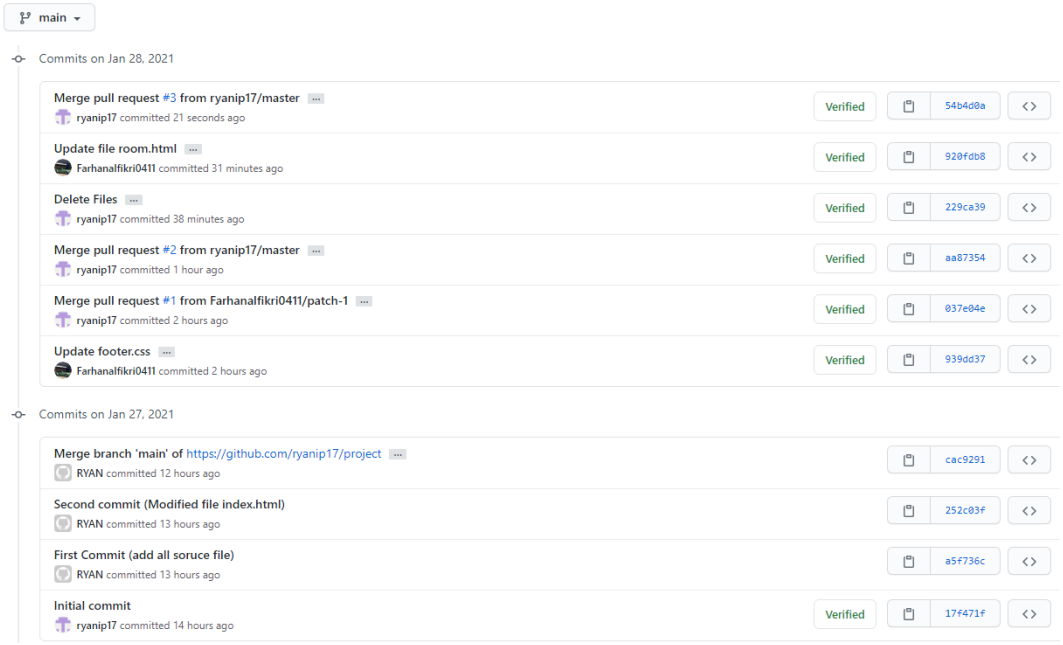




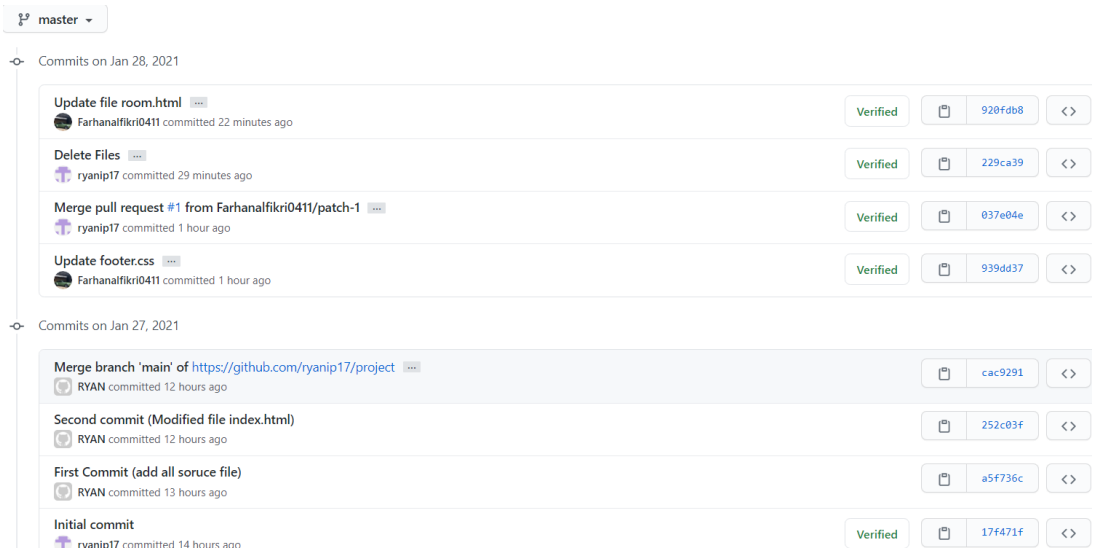
DEVOPS IMPLEMENTATION

The "commit" section on GitHub

1 . Branch main

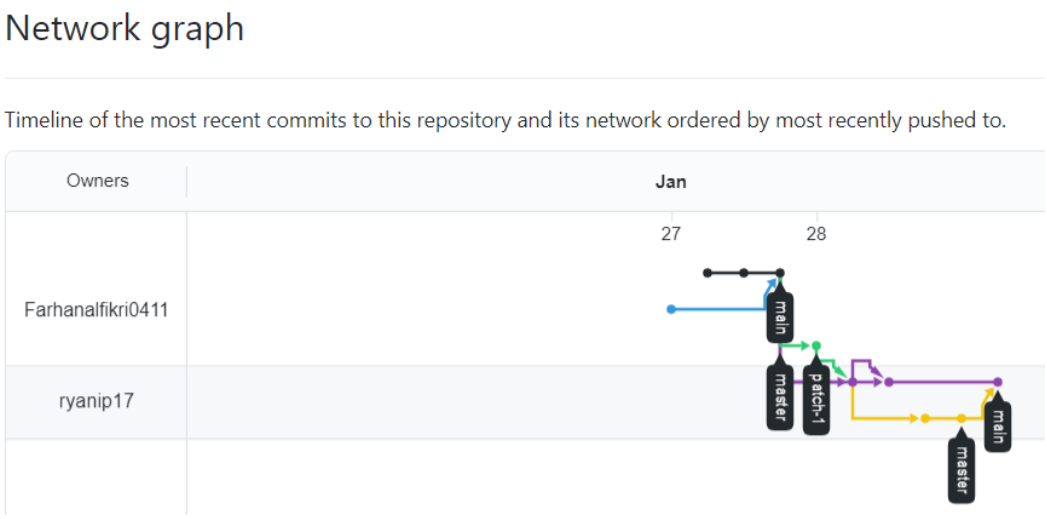


2. Branch master

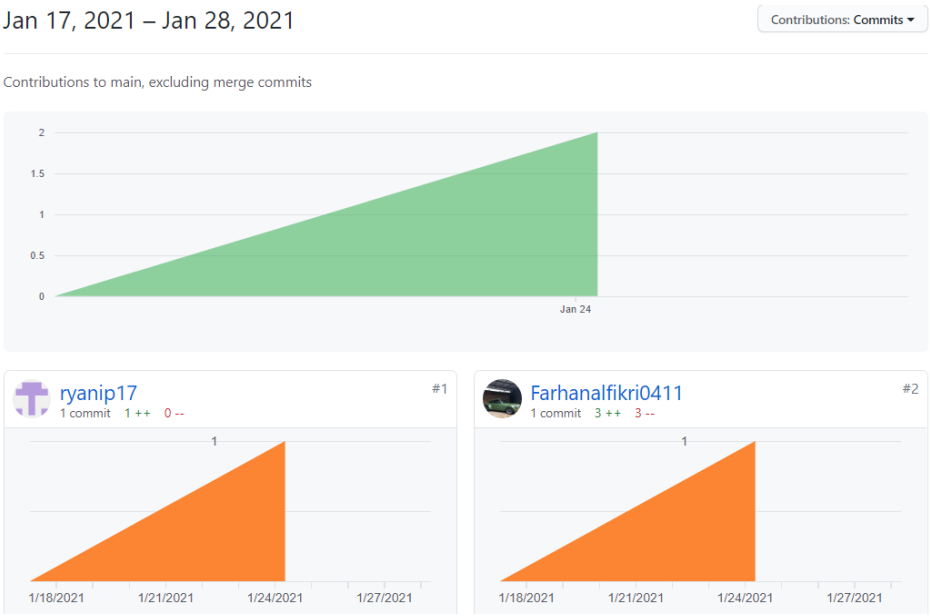


DEVOPS IMPLEMENTATION

Network Graph

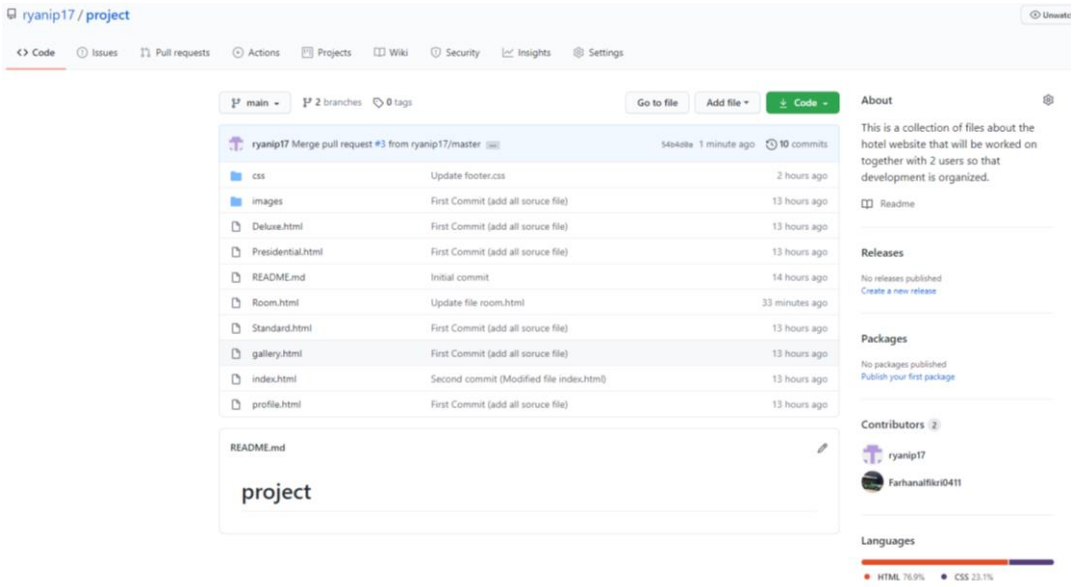


Contributors



DEVOPS IMPLEMENTATION

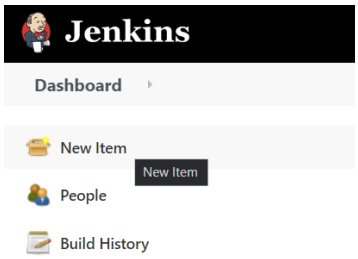
Github Repository



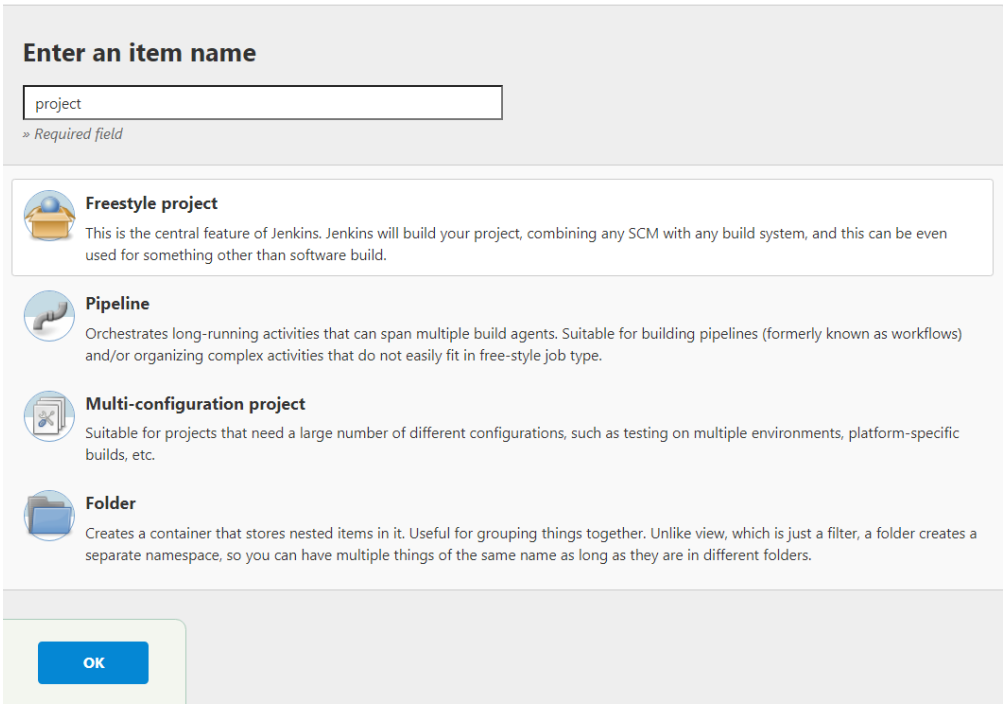
DEVOPS
IMPLEMENTATION

Jenkins Configuration

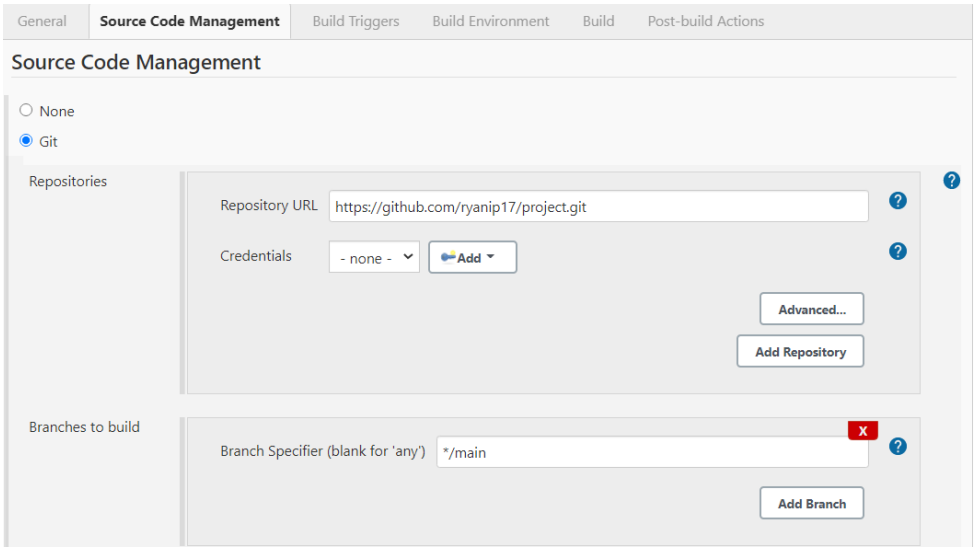
1. Click New item at Dashboard



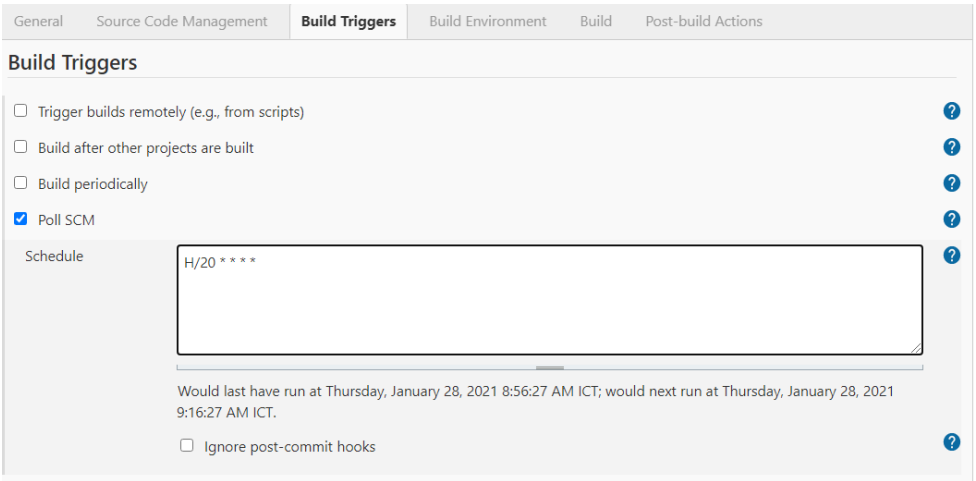
2. Enter an item name, and click Freestyle Project, and then click “ok”



3. Go to tab Source Code Management, and choose git :
   - Fill in the data Repository URL
   - Fill in the data Brench Specifer



4. Click tab Build Triggers and choose Poll SCM and fill the schedule, and then click "save"



DEVOPS IMPLEMENTATION

5. Click Build Now , and check at Build History, then go to Console Output

   - Console Output (branch main)

Console Output

```
Started by user Ryan Ibrahim Pratama
Running as SYSTEM
Building in workspace C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\project
The recommended git tool is: NONE
No credentials specified
 > git.exe rev-parse --is-inside-work-tree # timeout=10
Fetching changes from the remote Git repository
 > git.exe config remote.origin.url https://github.com/ryanip17/project.git # timeout=10
Fetching upstream changes from https://github.com/ryanip17/project.git
 > git.exe --version # timeout=10
 > git --version # 'git version 2.30.0.windows.2'
 > git.exe fetch --tags --force --progress -- https://github.com/ryanip17/project.git +refs/heads/*:refs/remotes/origin/* # timeout=10
 > git.exe rev-parse "refs/remotes/origin/main^{commit}" # timeout=10
Checking out Revision 54b4d0aa8ba16b19a8fa19516ac4e87e2fc3487f (refs/remotes/origin/main)
 > git.exe config core.sparsecheckout # timeout=10
 > git.exe checkout -f 54b4d0aa8ba16b19a8fa19516ac4e87e2fc3487f # timeout=10
Commit message: "Merge pull request #3 from ryanip17/master"
First time build. Skipping changelog.
Finished: SUCCESS
```

   - Console Output (branch master)

Console Output

```
Started by user Ryan Ibrahim Pratama
Running as SYSTEM
Building in workspace C:\Windows\system32\config\systemprofile\AppData\Local\Jenkins\.jenkins\workspace\project2
The recommended git tool is: NONE
No credentials specified
 > git.exe rev-parse --is-inside-work-tree # timeout=10
Fetching changes from the remote Git repository
 > git.exe config remote.origin.url https://github.com/ryanip17/project.git # timeout=10
Fetching upstream changes from https://github.com/ryanip17/project.git
 > git.exe --version # timeout=10
 > git --version # 'git version 2.30.0.windows.2'
 > git.exe fetch --tags --force --progress -- https://github.com/ryanip17/project.git +refs/heads/*:refs/remotes/origin/* # timeout=10
 > git.exe rev-parse "refs/remotes/origin/master^{commit}" # timeout=10
Checking out Revision 920fdb8a67492ceeeedac5a7fd8476f524a0faef (refs/remotes/origin/master)
 > git.exe config core.sparsecheckout # timeout=10
 > git.exe checkout -f 920fdb8a67492ceeeedac5a7fd8476f524a0faef # timeout=10
Commit message: "Update file room.html"
First time build. Skipping changelog.
Finished: SUCCESS
```

ACTIVITY LIST

No	Activity	Start date	End date	Person(s) involved
1	Creating Repository in GitHub	25/01/2021	25/01/2021	Ryan & Farhan
2	Run command with Git Bash	26/01/2020	27/01/2020	Ryan & Farhan
3	Push to GitHub Repositry	26/01/2020	27/01/2020	Ryan & Farhan
4	Collaborator and modified the file	27/01/2020	27/01/2020	Ryan & Farhan
5	Create an item on Jenkins	28/01/2020	28/01/2020	Ryan & Farhan
6	Build the project jenkins	28/01/2020	28/01/2020	Ryan & Farhan