Version Control with Git and GitHub

A. Git and GitHub

GitHub is a site that offers free storage space for the user, but the Git is the verstion control system by which we write the appropriate commands to transfer files on the Githab website, now I will show you the steps to transfer a file that includes the factorial calculation code for the Gathab website.

B. Steps

1. I typed the code and saved it inside a folder on the desktop.
2. I opened my account in Github and created a new repository I named it AlgorithmsCourse.
3. I returned to the my local code area that has the file inside it that I want to transfer to Github and created local repository inside it using the git init command.

4. I downloaded files from the local area of the staging /index area that acts as a buffer or filter for codes using the git add * command.

5. Then I downloaded the files from the stagingindex area to the local repo area (collect the files in this area before I move them to the Github) using the git commit -m "task 2" command.

```
$ git commit -m "task 2"
[master (root-commit) bc0915d] task 2
 1 file changed, 14 insertions(+)
 create mode 100644 factorial calculation.cpp

yasmeen@DESKTOP-R8MD669 MINGW64 ~/OneDrive/المكتب سطح/assignment 2 (master)
$ git remote add repo1 https://github.com/yasmynbrary/AlgorithmsCourse.git

yasmeen@DESKTOP-R8MD669 MINGW64 ~/OneDrive/المكتب سطح/assignment 2 (master)
$ git remote
repo1

yasmeen@DESKTOP-R8MD669 MINGW64 ~/OneDrive/المكتب سطح/assignment 2 (master)
$
```

6. Finally, I moved the files from the local repe area to the remote repo(on Github) area using the git push repo1 master command , So that origin is a word in which I stored the repo link that I want to transfer files on using the git remote add repo1 URL command so that URL is The address that I want to store in the word origin,and master is the branche that I added the commit on.

```
$ git remote
repo1

yasmeen@DESKTOP-R8MD669 MINGW64 ~/OneDrive/المكتب سطح/assignment 2 (master)
$ git push repo1 master
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 2 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 344 bytes | 86.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/yasmynbrary/AlgorithmsCourse.git
 * [new branch]      master -> master

yasmeen@DESKTOP-R8MD669 MINGW64 ~/OneDrive/المكتب سطح/assignment 2 (master)
$ git branch
* master

yasmeen@DESKTOP-R8MD669 MINGW64 ~/OneDrive/المكتب سطح/assignment 2 (master)
$
```
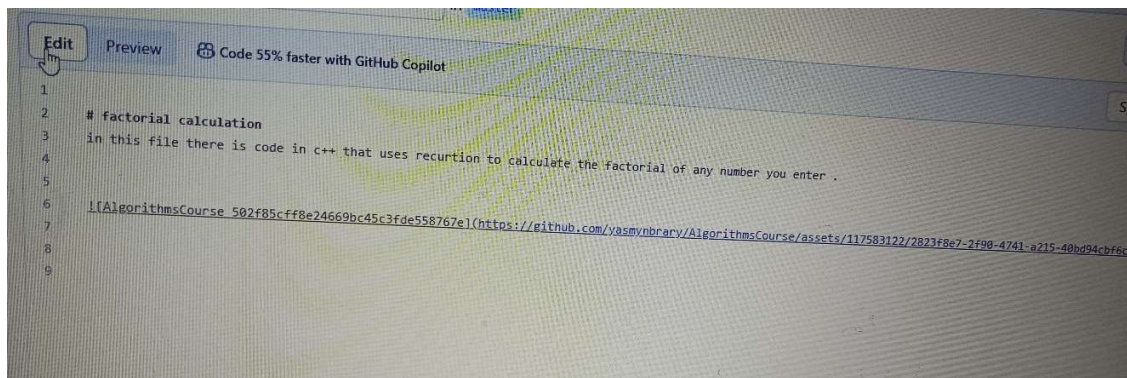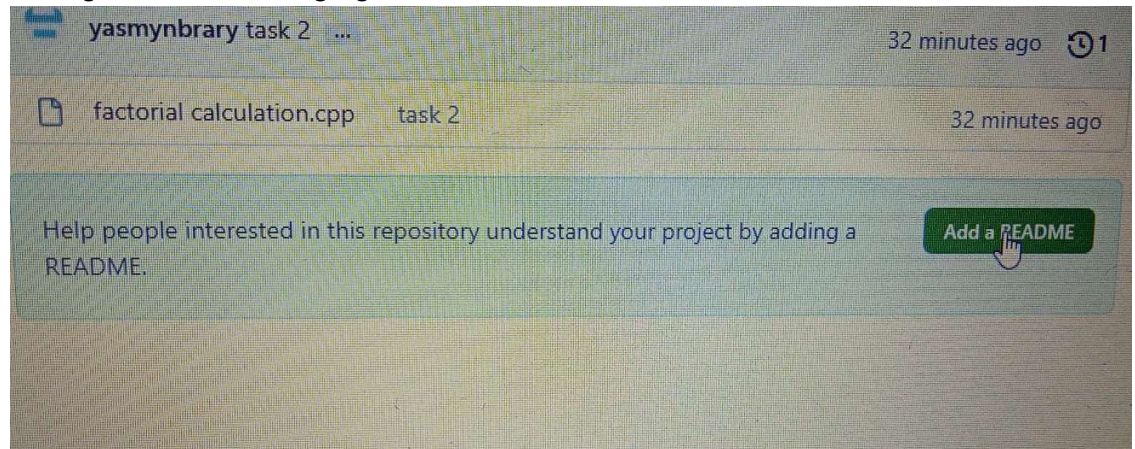
7. When we open the branch that you added the files to, we notice that there is an area where we were able to add a REDME file with explanations and

clarificationwere for the viewer about what is inside this branch, and the addition is using the markdown language.

NOTES :

- The git status command can be used to check each step, what you did and where you got there.
- The git remote command can be written to make sure that the repo link has been saved in a word (as a result of this command, I see the name of the word that I chose to save the URL in it).
- In order to know the commit that I made I use the git log command but the git log --oneline command shows me the commit that I made in a simpler and easier way to use them.
- If I wrote the command git branch it will print me what branches I have.

C. The GitHUB repository link

https://github.com/yasmynbrary/AlgorithmsCourse

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