Experiment -1.1

Install Git and creating repository

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Semester: 4th
Date of Performance: 22-01-2024
Subject Name: Git and GitHub
Subject Code: 22CSH-293

1. **Aim/Overview of the practical:** Install Git and creating repository.

2. **Task to be done:** Download Git for Windows. And, to make repositories.

3. **Steps for experiment:**

I) Browse to the official Git website and download the Application.

II) Now follow these steps for setup:

1. Get started! Download and run the installer.
2. Before we can code, you'll need to agree to the terms. Review and accept the license agreement.
3. Where do you want the magic to happen? Choose where you want to install the software and what features you want included.
4. Pick your tools! Select your preferred text editor and a name for your project.
5. Make it easy to find things. Configure your computer's environment and set up your SSH connection.
6. Security first! Choose how you want to handle server certificates and adjust end-of-line characters.
7. Open a window to your code. Select your preferred terminal emulator and decide how you want to update your project.
8. Connect and customize. Set up your password helper and choose any additional features you want.\
9. Exit the setup by hitting the finish button

How to Launch Git in Windows

Git has two modes of use – a **bash scripting shell** (or command line) and a **graphical user interface** (GUI).

To launch **Git BASH :**

Open the **Windows Start** menu, type ***git bash*** and press **Enter** (or click the application icon). **Connecting to a Remote Repository**

Configure GitHub Credentials

Configure your local Git installation to use your GitHub credentials by entering the following:

git config --global user.name "github_username"

git config --global user.email "email_address"

Note: Replace **github_username** and **email_address** with your GitHub credentials.

We can also see the list of configurations by using the command git config – list.

```
Yash@DESKTOP-6RNJTE8 MINGW64 ~
$ git config --list
diff.astextplain.textconv=astextplain
filter.lfs.clean=git-lfs clean -- %f
filter.lfs.smudge=git-lfs smudge -- %f
filter.lfs.process=git-lfs filter-process
filter.lfs.required=true
http.sslbackend=openssl
http.sslcainfo=C:/Program Files/Git/mingw64/etc/ssl/certs/ca-bundle.crt
core.autocrlf=false
core.fscache=true
core.symlinks=false
pull.rebase=false
credential.helper=manager
credential.https://dev.azure.com.usehttppath=true
init.defaultbranch=master
core.editor="C:\Users\Yash\AppData\Local\Programs\Microsoft VS Code\bin\code" --wait
user.name=yash
user.email=choudharyyash429@gmail.com
```

Clone a GitHub Repository

Go to your repository on GitHub. In the top right above the list of files, open the **Clone or download** drop-down menu. Copy the **URL for cloning over HTTPS**.

Switch to your PowerShell window, and enter the following:

git clone repository_url

```
Yash@DESKTOP-6RNJTE8 MINGW64 ~
$ git clone https://github.com/jaatcse/Yash1st.git
Cloning into 'Yash1st'...
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (6/6), done.
```

List Remote Repositories

Your working directory should now have a copy of the repository from GitHub. It should contain a directory with the name of the project. Change to the directory:

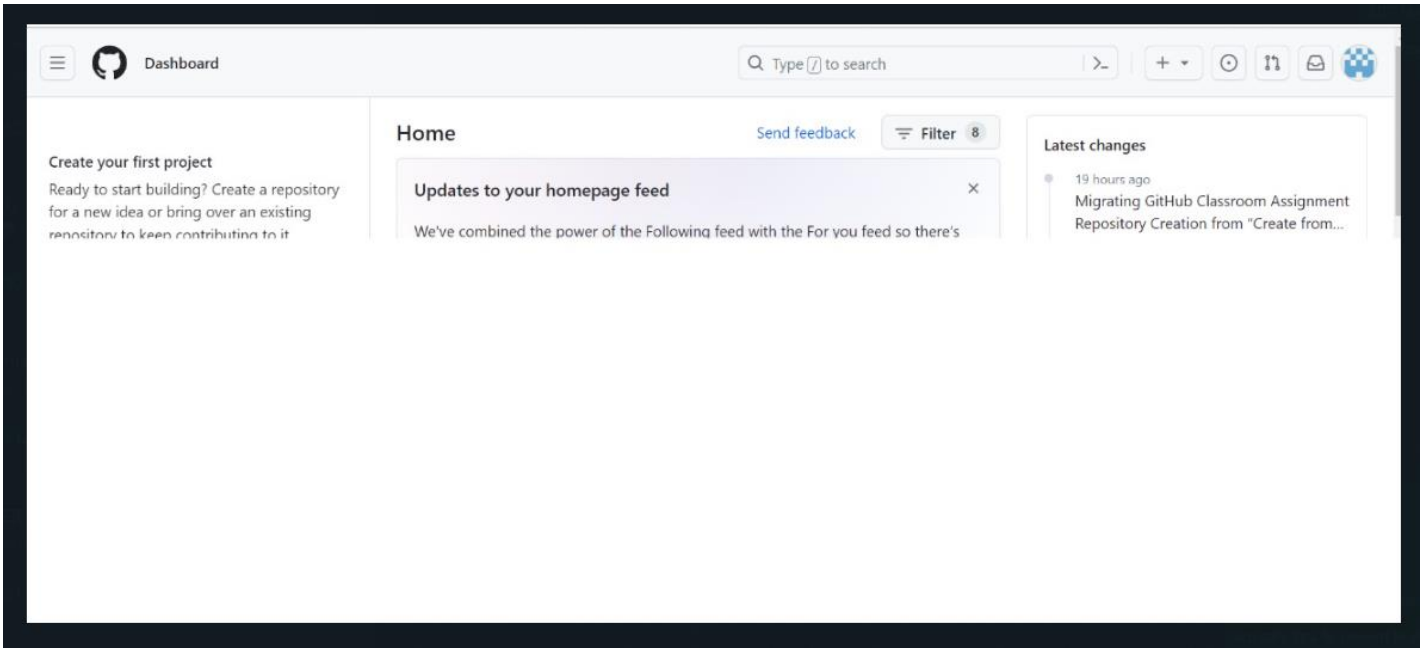
```
Yash@DESKTOP-6RNJTE8 MINGW64 ~
$ cd yash1st
```

Now type ‘ls’ to list the name of files available in the directory.

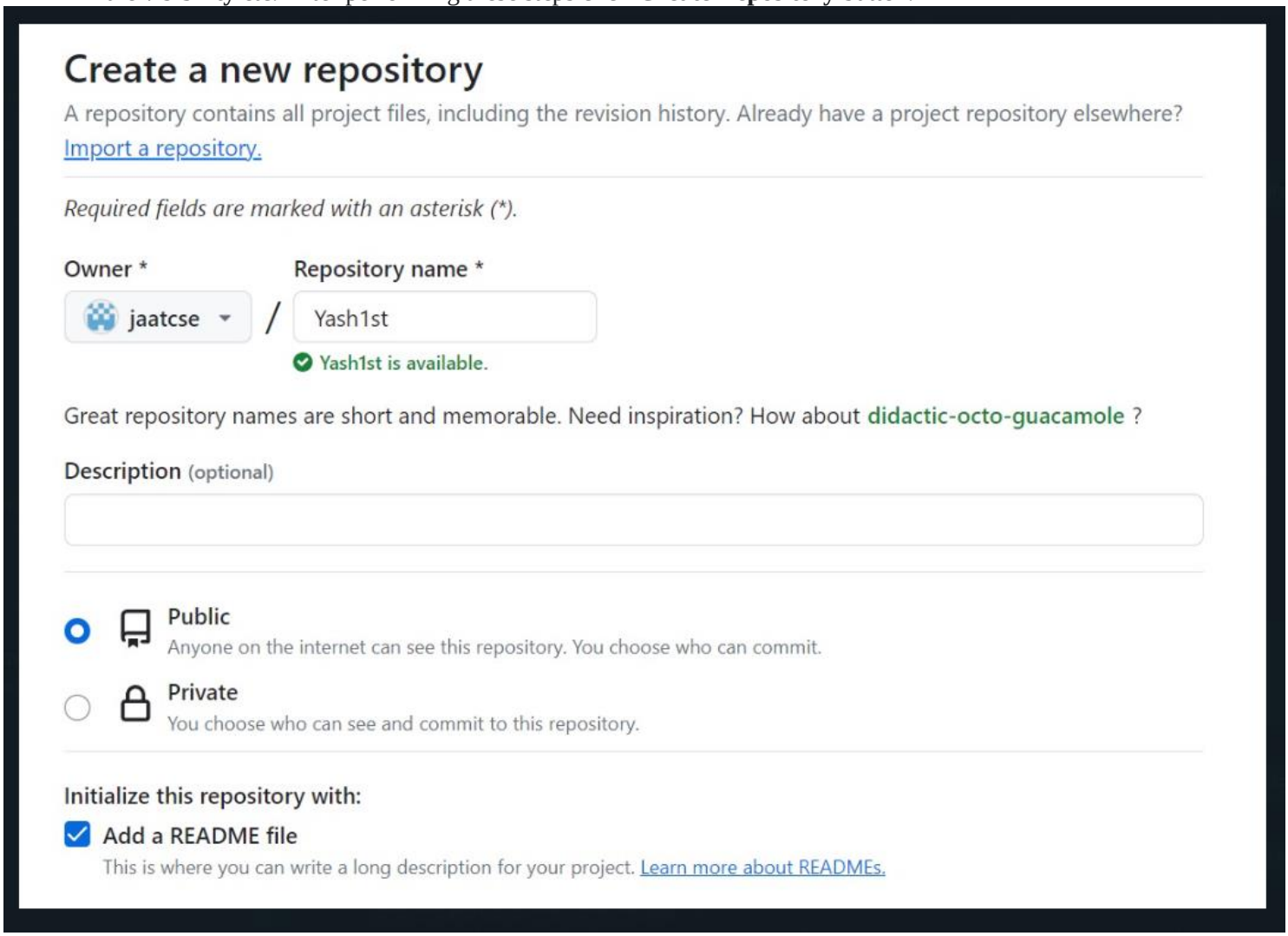
```
Yash@DESKTOP-6RNJTE8 MINGW64 ~/yash1st (main)
$ ls
README.md  test
```

Creating Repository on GitHub

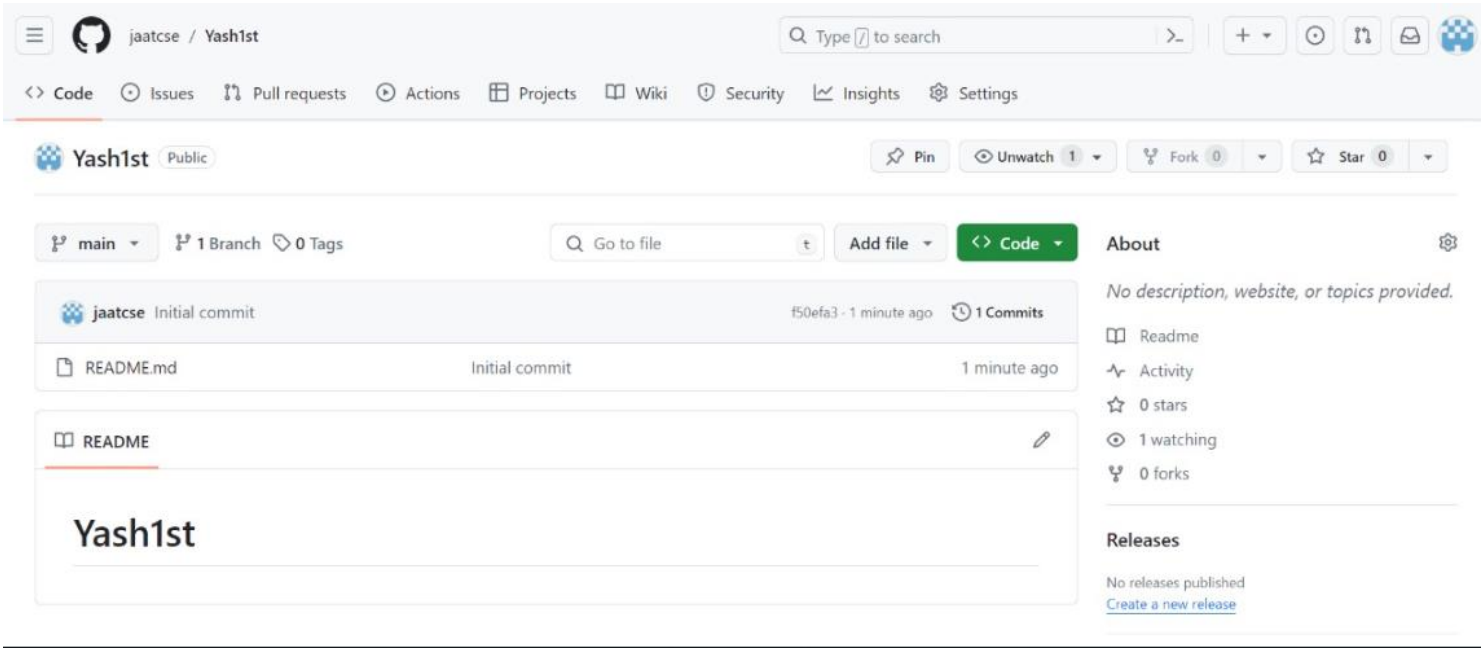
1. After successful login into your account. Click on the option (+) to add new repository to your account.



2. After clicking **new repository** option, we will have to initialize some things like, **naming our project**, choosing the **visibility** etc. After performing these steps click **Create Repository** button.



3. After clicking the button, we will be directed to the next page. After that we added some files using add files option. This is how our repository looks now.



4. Result/Output/Writing Summary:

We have successfully created a repository and applied some commands on that.

Learning outcomes (What I have learnt):

1. Learnt about GitHub.
2. Learnt about Git.
3. Learnt about various git commands that can be applied on Git Bash.
4. Learnt about repositories.
5. Learnt about how to pull request and push.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			