

Git and GitHub Setup - Documentation

Overview:

This document shows you how to setup git and GitHub and push files from local repository to GitHub repository, it explains about step-by-step process.

What you will accomplish:

- Install Git bash in local computer.
- Create GitHub account.
- SSH authentication between local computer and GitHub account
- Integrate local repository and GitHub repository.
- Upload local files to GitHub.

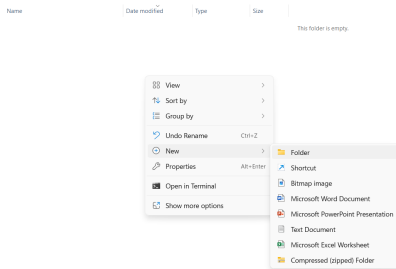
Prerequisites:

- Download Git Bash from internet.
- GitHub account.

Implementation:

Step-1: Create new folder and copy files to this folder.

Step-1.1: Create a new folder in local computer and give name ex. Git Local Repository



Step-1.2: Copy files to this folder or create new files.

This PC > Windows (C:) > Git Local Repository				
Name	Date modified	Type	Size	
Code.txt	05-09-2023 08:49	Text Document	0 KB	
Log.txt	05-09-2023 08:49	Text Document	0 KB	
Output.txt	05-09-2023 08:50	Text Document	0 KB	

Step-2: Download and Install Git bash in local system.

Step-2.1: Download git bash from internet.

Google search results for "download git bash".

Results include:

- Git SCM** - Downloads: Latest source Release: 2.42.0 Release Notes (2023-06-21) Download for Linux, GUI Clients. Git comes with builtin GUI tools (git-gui, gkix), but there are ...
- Git - Downloading Package** - Download for Windows. Click here to download the latest (2.42.0) 32-bit version of Git for Windows. This is the most recent maintained build.

People also ask:

- How can I install Git Bash?
- How do I download and install Git Bash on Windows 10?
- Do I need to install Git Bash on Windows?
- How to download Git from cmd?

Git website (https://git-scm.com/downloads) showing the Downloads section.

Downloads section highlights the latest source Release: **2.42.0** (Release Notes (every odd-nc)).

Downloads are available for:

- macOS
- Windows
- Linux/Unix

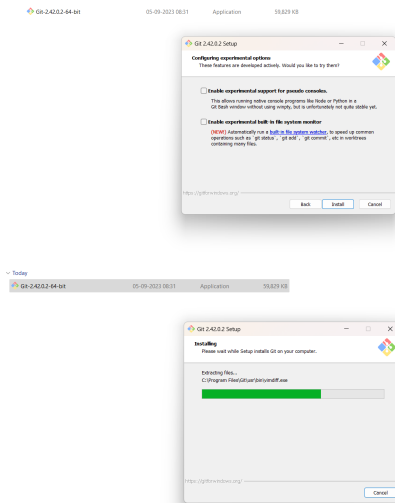
Older releases are available and the Git source repository is on GitHub.

GUI Clients: Git comes with built-in GUI tools (git-gui, gkix), but there are several third-party tools for users looking for a platform-specific experience. View GUI Clients --

Logos: Various Git logos in PNG (download) and EPS (vector) formats are available for use in online and print projects. View Logos --

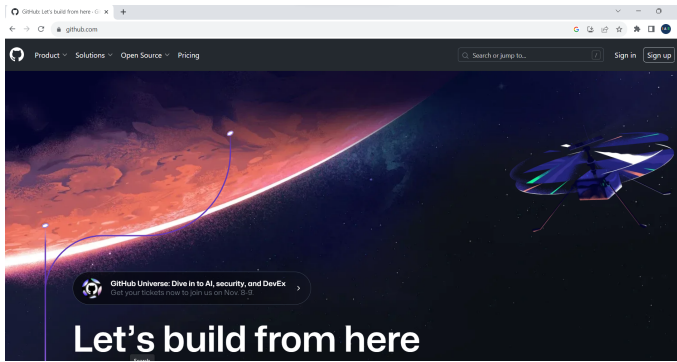
Git via Git: If you already have Git installed, you can get the latest development version via Git itself. git clone https://git.scm.com/git/git You can also always browse the current contents of the git repository using the web interface.

Step-2.2: Install Git bash in local computer



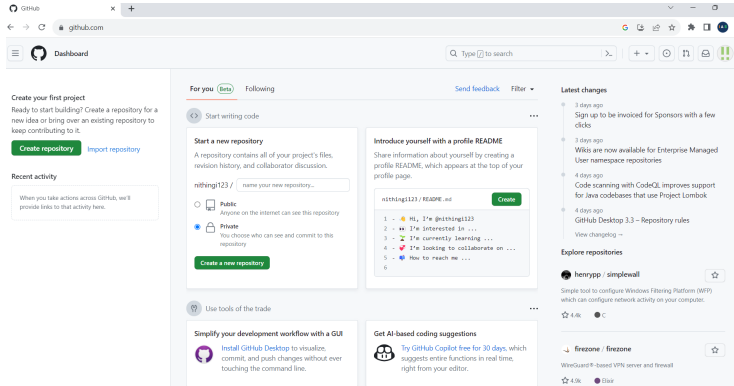
Step-2: Create GitHub account..

Step-2.1: Open github.com website.



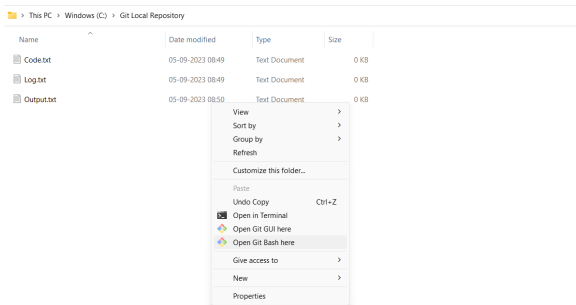
Step-2.2: Click on signup option to create new account.

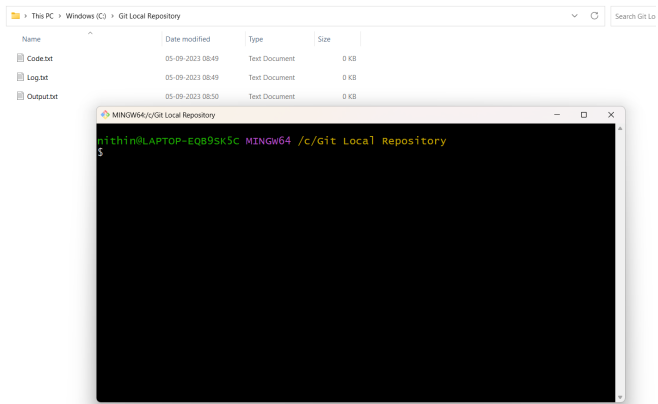
1. It will ask Email Id, Password and Username enter details and click on create account option.
2. It will send verification code to your mail, copy code form mail and submit.
3. It will ask some basic questions, answer the questions and click on continue for free option.
4. Finally, it shows like below image



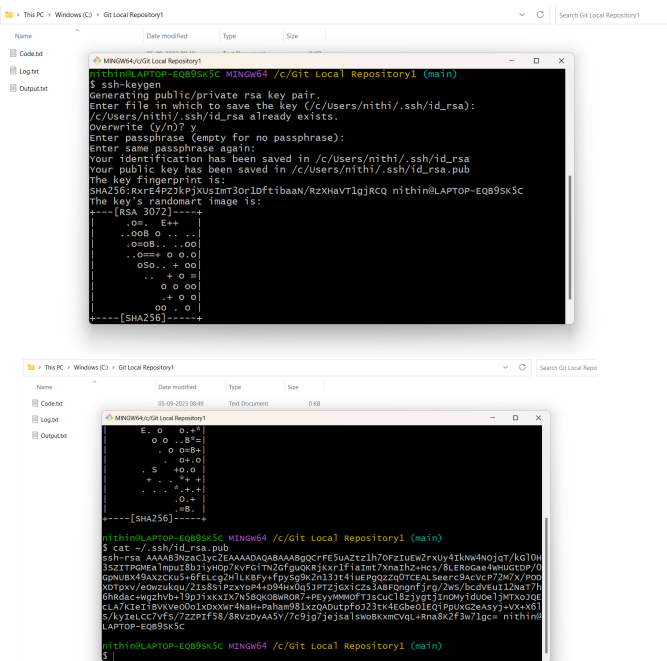
Step-3: SSH connection between GitHub and local computer.

Step-3.1: Right click in new folder created in local computer and click on Git Bash here option, it opens Git command prompt window.

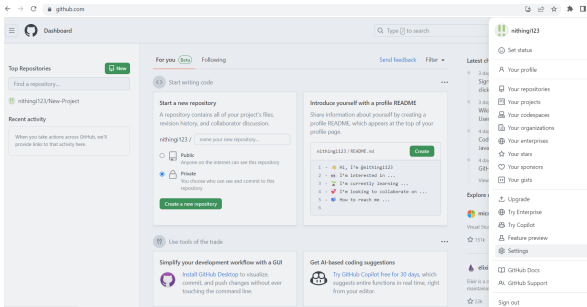




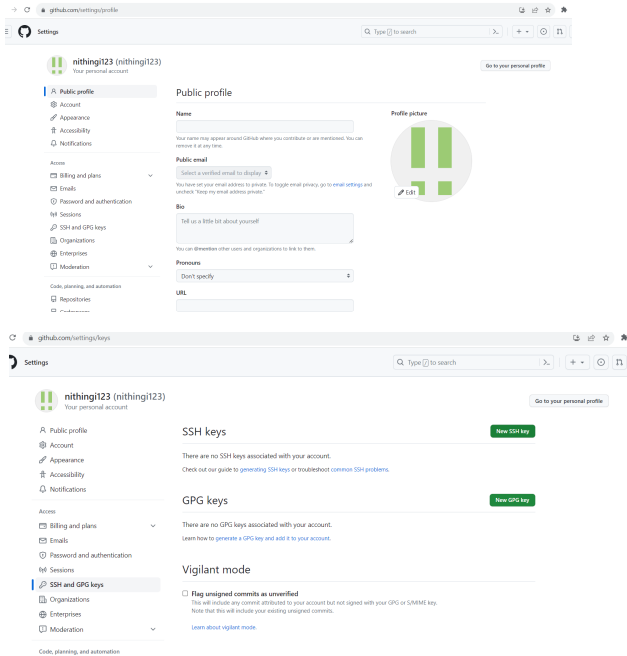
Step-3.2: Generate SSH key by typing command 'ssh-keygen' and copy the key.



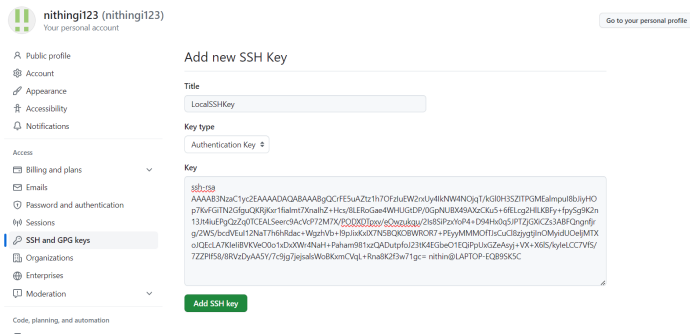
Step-3.3: Click on the GitHub account profile image (right corner of the page) and click on settings option.



Step-3.4: Click on SSH and GPG Keys option and then click on New SSHKey option.



Step-3.5: Enter SSH Key name and past SSH Key copied from Git Bash (step-3.2)



nithing123 (nithing123)
Your personal account

Go to your personal profile

- Public profile
- Account
- Appearance
- Accessibility
- Notifications

Access

- Billing and plans
- Emails
- Password and authentication
- Sessions
- SSH and GPG keys**
- Organizations
- Enterprises
- Moderation

Code, planning, and automation

Add new SSH Key

Title

LocalSSHKey

Key type

Authentication Key

Key

```
ssh-rsa  
AAAAAB3NzC7YcZAAAAADQABAA8yZC7FE5uAztz1h7OfzuEW2nly4l6AMN0Cq7AG0HFSZTTPQMEalmpuB0lyHO  
p76uFG7N2Spz0X0Y6m16alm70ouhZ+Hex8B.EFicGseAMUUGD3pH5p9M.BW8ANkCCuL+HREJz2H4K89+HpsGpKzn  
1374uPhyZzq7TCALSeer3AcVp72MTX7DQX07jov7S6Zu2qgu7s88SPz9bH4+D94H0q5PTZG0KZ3ABFQnrfly  
g7W57focvEu12Na1776HrIdac+WgatVb+Rpiakx07NGB0KCBWROR7+PEyMMMOH7tcu03bzg9hCMaydU0ejMTX  
uKZELAT0G0BWBW60b10X0W4N4H+PahumR8H7uZ4DuyfuZ3N4EGC0+P7EG3pLuCZ2A0ej+VX+X857kyeLCC7W5/  
ZZZFHS5/8RvZyAA5V77qjz7epaWw6BkmCVql+RnabKE3w7Tgc= nithin@LAPTOP-EQB9SK5C
```

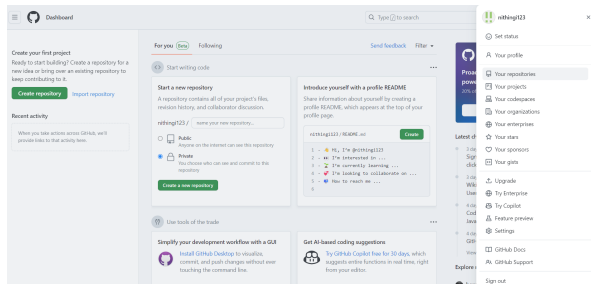
Add SSH key

Step-3.6: Test the SSH connection by executing 'ssh -T git@github.com' command on Git bash command prompt.

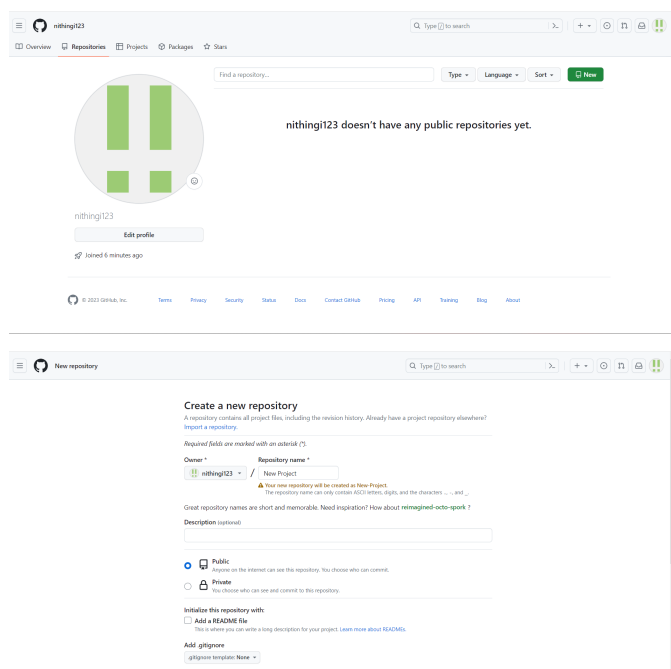
```
nithin@LAPTOP-EQB9SK5C MINGW64 /c/Git Local Repository1 (main)  
$ ssh -T git@github.com  
Hi nithing123! You've successfully authenticated, but GitHub does not provide shell access.
```

Step-4: Create GitHub repository.

Step-4.1: Click on the GitHub account profile image (right corner of the page) and click on your repositories option.



Step-4.2: Create new repository by clicking on New option in page and enter name of repository, select public or private repository option and click on create option.



Step-4.3: Open new repository and follow the commends to upload files to GitHub from local repository.

Get started with GitHub Copilot

Invite collaborators

Quick setup — if you've done this kind of thing before

Set up in Desktop

OR

HTTPS

SSH

https://github.com/nlthing123/New-Project.git

Get started by creating a new file or uploading an existing file. We recommend every repository include a README, LICENSE, and .gitignore.

...or create a new repository on the command line

```
echo "# New-Project" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/nlthing123/New-Project.git
git push -u origin main
```

...or push an existing repository from the command line

```
git remote add origin https://github.com/nlthing123/New-Project.git
git branch -M main
git push -u origin main
```

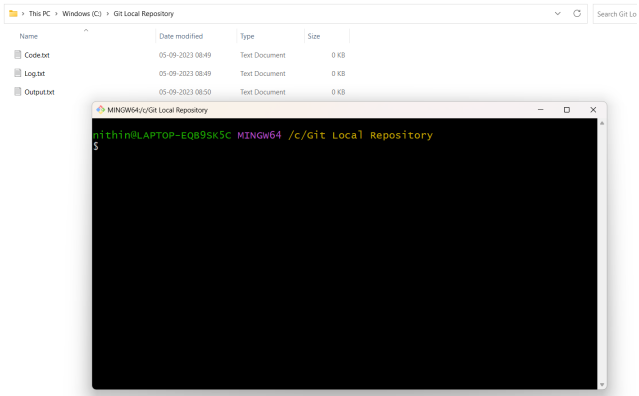
...or import code from another repository

You can initialize this repository with code from a Subversion, Mercurial, or TFS project.

Import code

Step-5: Upload files to GitHub from local repository

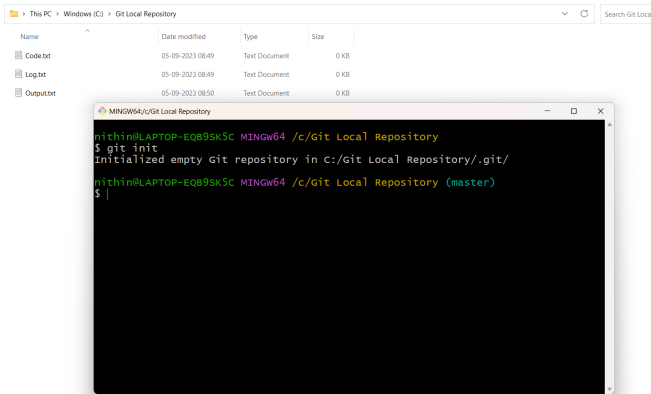
Step-5.1: Open Git Bash in folder where files are located.



Step-5.2: Execute following commands on Git Bash command prompt.

- git init
- git add .
- git commit -m 'first commit'
- git branch -M main
- git remote add origin git@github.com:nithingidigi1/New-Project1.git (copy this from GitHub repository SSH tab)
- git push -u origin main

Step-5.2.1: Execute 'git init' command.



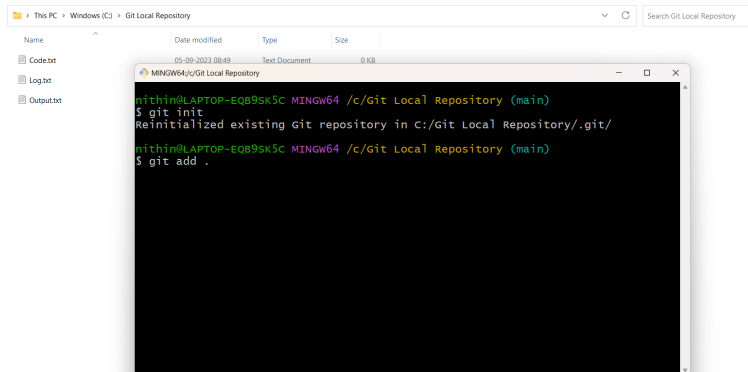
The screenshot shows a Windows File Explorer window titled 'Git Local Repository' with the following table:

Name	Date modified	Type	Size
Code.txt	05-09-2023 08:49	Text Document	0 KB
Log.txt	05-09-2023 08:49	Text Document	0 KB
Output.txt	05-09-2023 08:50	Text Document	0 KB

Below the File Explorer is a terminal window titled 'MINGW64 ~/Git Local Repository' showing the following commands and output:

```
nithin@LAPTOP-EQ89SK5C MINGW64 /c/Git Local Repository
$ git init
Initialized empty Git repository in c:/Git Local Repository/.git/
nithin@LAPTOP-EQ89SK5C MINGW64 /c/Git Local Repository (master)
$
```

Step-5.2.2: Execute 'git add .' command. ('.' means current folder)



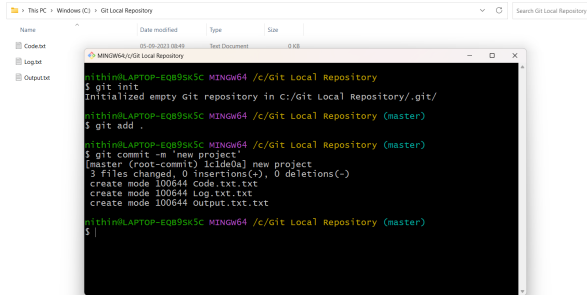
The screenshot shows a Windows File Explorer window titled 'Git Local Repository' with the following table:

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Output.txt	05-09-2023 08:50	Text Document	0 KB

Below the File Explorer is a terminal window titled 'MINGW64 ~/Git Local Repository' showing the following commands and output:

```
nithin@LAPTOP-EQ89SK5C MINGW64 /c/Git Local Repository (main)
$ git init
Reinitialized existing Git repository in c:/Git Local Repository/.git/
nithin@LAPTOP-EQ89SK5C MINGW64 /c/Git Local Repository (main)
$ git add .
```

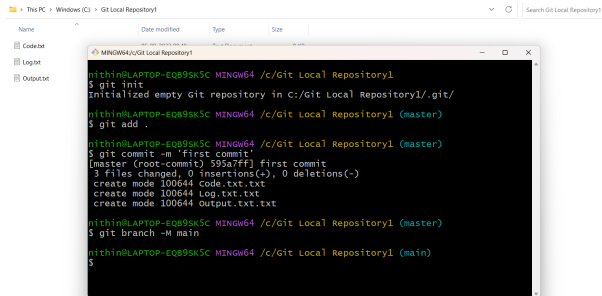
Step-5.2.3: Execute 'git commit -m 'first commit"' command.



The screenshot shows a Windows File Explorer window titled 'This PC > Windows (C:) > Git Local Repository'. Below the file list, a terminal window is open with the following commands and output:

```
MINGW64\UGR Local Repository
nithin@LAPTOP-EQB9SK5C MINGW64 /c/Git Local Repository
$ git init
Initialized empty Git repository in c:/Git Local Repository/.git/
nithin@LAPTOP-EQB9SK5C MINGW64 /c/Git Local Repository (master)
$ git add .
nithin@LAPTOP-EQB9SK5C MINGW64 /c/Git Local Repository (master)
$ git commit -m "new project"
[master (root-commit) 1c1de0a] new project
3 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 code.txt.txt
create mode 100644 Log.txt.txt
create mode 100644 Output.txt.txt
nithin@LAPTOP-EQB9SK5C MINGW64 /c/Git Local Repository (master)
$
```

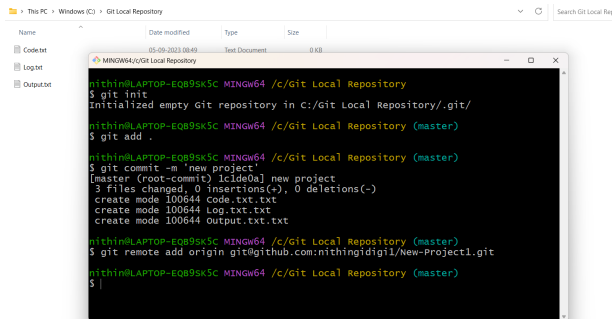
Step-5.2.4: Execute 'git branch -M main' command.



The screenshot shows a Windows File Explorer window titled 'This PC > Windows (C:) > Git Local Repository1'. Below the file list, a terminal window is open with the following commands and output:

```
MINGW64\UGR Local Repository1
nithin@LAPTOP-EQB9SK5C MINGW64 /c/Git Local Repository1
$ git init
Initialized empty git repository in c:/Git Local Repository1/.git/
nithin@LAPTOP-EQB9SK5C MINGW64 /c/Git Local Repository1 (master)
$ git add .
nithin@LAPTOP-EQB9SK5C MINGW64 /c/Git Local Repository1 (master)
$ git commit -m "first commit"
[master (root-commit) 595a7ff] first commit
3 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 code.txt.txt
create mode 100644 Log.txt.txt
create mode 100644 Output.txt.txt
nithin@LAPTOP-EQB9SK5C MINGW64 /c/Git Local Repository1 (master)
$ git branch -M main
nithin@LAPTOP-EQB9SK5C MINGW64 /c/Git Local Repository1 (main)
$
```

Step-5.2.5: Execute 'git remote add origin git@github.com:nithingidigi1/New-Project1.git' command.



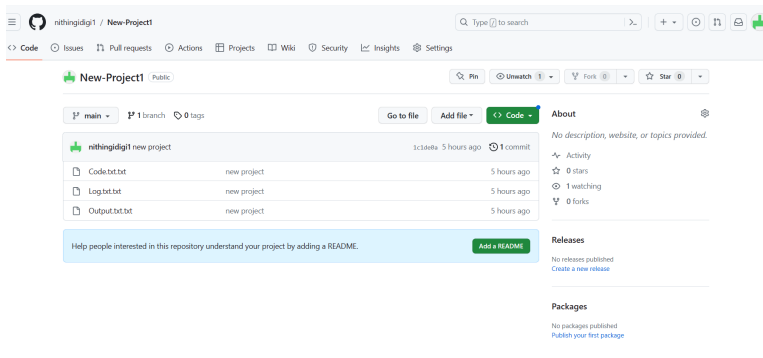
The screenshot shows a Windows File Explorer window titled 'This PC > Windows (C:) > Git Local Repository'. Below the file list, a terminal window is open with the following commands and output:

```
MINGW64\UGR Local Repository
nithin@LAPTOP-EQB9SK5C MINGW64 /c/Git Local Repository
$ git init
Initialized empty Git repository in c:/Git Local Repository/.git/
nithin@LAPTOP-EQB9SK5C MINGW64 /c/Git Local Repository (master)
$ git add .
nithin@LAPTOP-EQB9SK5C MINGW64 /c/Git Local Repository (master)
$ git commit -m "new project"
[master (root-commit) 1c1de0a] new project
3 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 code.txt.txt
create mode 100644 Log.txt.txt
create mode 100644 Output.txt.txt
nithin@LAPTOP-EQB9SK5C MINGW64 /c/Git Local Repository (master)
$ git remote add origin git@github.com:nithingidigi1/New-Project1.git
nithin@LAPTOP-EQB9SK5C MINGW64 /c/Git Local Repository (master)
$
```

Step-5.2.6: Execute 'git push origin main' command.

```
nithin@LAPTOP-EQB9SK5C MINGW64 ~/Downloads/New folder (main)
$ git push -u origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 209 bytes | 209.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To github.com:nithingil23/New-Project.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
```

Step-5.3: Open GitHub repository and check files.



Conclusion:

This document explained step by step process about how to establish connection between GitHub and local server and how to push files from local repository to GitHub repository.