

GIT OPEARTIONS

1.Install GIT on your machines.

- Git is downloaded and installed from <https://git-scm.com/download/win>.
- In command prompt use **git** keyword to check if the GIT was installed correctly.

```
cmd Command Prompt
Microsoft Windows [Version 10.0.19043.1526]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>git
usage: git [--version] [--help] [-C <path>] [-c <name>=<value>]
        [--exec-path[=<path>]] [--html-path] [--man-path] [--info-path]
        [-p | --paginate | -P | --no-pager] [--no-replace-objects] [--bare]
        [--git-dir=<path>] [--work-tree=<path>] [--namespace=<name>]
        [--super-prefix=<path>] [--config-env=<name>=<envvar>]
        <command> [<args>]

These are common Git commands used in various situations:

start a working area (see also: git help tutorial)
  clone      Clone a repository into a new directory
  init       Create an empty Git repository or reinitialize an existing one

work on the current change (see also: git help everyday)
  add        Add file contents to the index
  mv         Move or rename a file, a directory, or a symlink
  restore    Restore working tree files
  rm         Remove files from the working tree and from the index

examine the history and state (see also: git help revisions)
  bisect    Use binary search to find the commit that introduced a bug
  diff      Show changes between commits, commit and working tree, etc
  grep      Print lines matching a pattern
  log       Show commit logs
  show      Show various types of objects
  status    Show the working tree status

grow, mark and tweak your common history
  branch    List, create, or delete branches
  commit    Record changes to the repository
  merge     Join two or more development histories together
  rebase    Reapply commits on top of another base tip
  reset     Reset current HEAD to the specified state
  switch    Switch branches
  tag       Create, list, delete or verify a tag object signed with GPG

collaborate (see also: git help workflows)
  fetch     Download objects and refs from another repository
  pull      Fetch from and integrate with another repository or a local branch
  push      Update remote refs along with associated objects

'git help -a' and 'git help -g' list available subcommands and some
concept guides. See 'git help <command>' or 'git help <concept>'
to read about a specific subcommand or concept.
See 'git help git' for an overview of the system.
```

- Using **git config --global user.xxx** enter username and email.
- Using **git config --list** check the user details.

```

Command Prompt
See 'git help git' for an overview of the system.

C:\Users\HP>git config --global user.name "karthik"

C:\Users\HP>git config --global user.email "karthikkarthik14112000@gmail.com"

C:\Users\HP>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/ssl/certs/ca-bundle.crt
core.autocrlf=true
core.fscache=true
core.symlinks=false
pull.rebase=false
credential.helper=manager-core
credential.https://dev.azure.com.usehttppath=true
init.defaultbranch=master
user.name=karthik
user.email=karthikkarthik14112000@gmail.com

C:\Users\HP>

```

2.Create repo in one of the folders.

- In order to convert local folder (First_Project_Repository) into repository move to the respective folder path.
- **git status** - Show how the working tree status.

```

C:\Users\HP>cd C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository

C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>git status
fatal: not a git repository (or any of the parent directories): .git

```

- In that folder three files are created which will be added to the repository.
add.c, subtract.c and multiply.c

Clipboard	Organize	New	Open	Select	
This PC > Desktop > Huawei intern assignments > GIT > First_Project_Repository					
Name	Status	Date modified	Type	Size	
add	✓	07-03-2022 19:34	C Source File	1 KB	
multiply	✓	07-03-2022 18:29	C Source File	1 KB	
subtract	✓	07-03-2022 18:28	C Source File	1 KB	

- Sample code in file add.c

*add - Notepad

File Edit Format View Help

```
#include <stdio.h>
int main()
{
    int number1=1, number2=2, sum;
    sum = number1 + number2;
    printf("%d + %d = %d", number1, number2, sum);
    return 0;
}
```

- **git init** is used to create a repository from a folder in a path . Here an empty repository is created.

```
C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>git init
Initialized empty Git repository in C:/Users/HP/OneDrive/Desktop/Huawei intern assignments/GIT/First_Project_Repository/.git/
```

- Below is the repository containing unknown three files.

Clipboard	Organize	New	Open	Select	
This PC > Desktop > Huawei intern assignments > GIT > First_Project_Repository					
Name	Status	Date modified	Type	Size	
.git	✓	07-03-2022 19:34	File folder		
add	✓	07-03-2022 19:34	C Source File	1 KB	
multiply	✓	07-03-2022 18:29	C Source File	1 KB	
subtract	✓	07-03-2022 18:28	C Source File	1 KB	

- Below you can see that repository is created but with a untracked files. We only created repository still we need to add files into that repository although it has three untracked files in it.

```
C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    add.c
    multiply.c
    subtract.c

nothing added to commit but untracked files present (use "git add" to track)
C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>add
```

3. Add atleast three files and then commit separately.

- In this step we added a **add.c** file using **git add add.c** command into the repository but not committed.

```
C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>git add add.c

C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   add.c

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        multiply.c
        subtract.c

C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>
```

- The commit operation is done for a file add.c using **git commit -m "comment"** command.

```
C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>git commit -m "add.c file is committed first"
[master (root-commit) 4d57604] add.c file is committed first
 1 file changed, 8 insertions(+)
 create mode 100644 add.c

C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>
```

- Similarly add and commit operations were done for remaining files.

```
C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>git add subtract.c

C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>git commit -m "subtract.c file is committed second"
[master 96f912b] subtract.c file is committed second
 1 file changed, 8 insertions(+)
 create mode 100644 subtract.c
```

```
C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>git add multiply.c

C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>git commit -m "multiply.c file is committed second"
[master 5150ce2] multiply.c file is committed second
 1 file changed, 8 insertions(+)
 create mode 100644 multiply.c
```

```
C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>git status
On branch master
nothing to commit, working tree clean



C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>
```

- After added the files into repository we need to update this local repository in github repository.
- For that create repository in GITHUB after login.

Create a new repository


A repository contains all project files, including the revision history. Already have a project repository elsewhere?
[Import a repository.](#)


Owner * Repository name *

 Karthik-V-g / 

Great repository names are : First_Project_HUAWEI is available. inspiration? How about **sturdy-octo-adventure**?

Description (optional)

☒  **Public**
Anyone on the internet can see this repository. You choose who can commit.

☐  **Private**
You choose who can see and commit to this repository.

Initialize this repository with:
Skip this step if you're importing an existing repository.

☐ **Add a README file**
This is where you can write a long description for your project. [Learn more.](#)

☐ **Add .gitignore**
Choose which files not to track from a list of templates. [Learn more.](#)

☐ **Choose a license**
A license tells others what they can and can't do with your code. [Learn more.](#)

- **git push** is used update the local repository before that a remote object should be created in order to update in the particular GITHUB repository.
- **git remote origin**(can be any name) “http repository link in GITHUB” .

```
C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>git remote add origin https://github.com/Karthik-V-g/First_Pro
ject_HUAWEI.git

C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>git remote
origin

C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>git remote -v
origin https://github.com/Karthik-V-g/First_Project_HUAWEI.git (fetch)
origin https://github.com/Karthik-V-g/First_Project_HUAWEI.git (push)

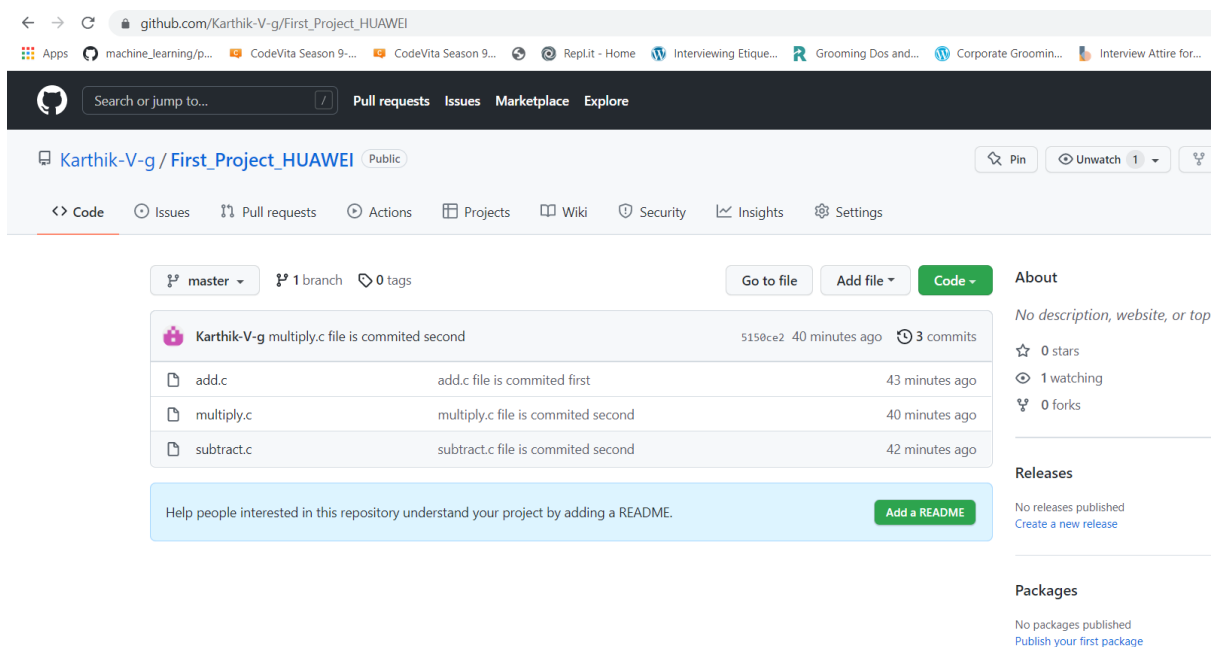
C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>
```

- Using **push origin master** the repository is successfully uploaded to GITHUB.

```
C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>git push origin master
warning: ----- SECURITY WARNING -----
warning: | TLS certificate verification has been disabled! |
warning: -----
warning: HTTPS connections may not be secure. See https://aka.ms/gcm/tlsverify for more information.
info: please complete authentication in your browser...
warning: ----- SECURITY WARNING -----
warning: | TLS certificate verification has been disabled! |
warning: -----
warning: HTTPS connections may not be secure. See https://aka.ms/gcm/tlsverify for more information.
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 8 threads
Compressing objects: 100% (8/8), done.
Writing objects: 100% (9/9), 1.08 KiB | 277.00 KiB/s, done.
Total 9 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Karthik-V-g/First_Project_HUAWEI.git
 * [new branch]      master -> master

C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>
```

- Below is the GITHUB repository contains files from local repository.



The screenshot shows the GitHub repository page for **Karthik-V-g / First_Project_HUAWEI**. The repository is public and has 1 branch (master) and 0 tags. The commit history shows three files: **add.c**, **multiply.c**, and **subtract.c**, each with a commit message and time. There is a button to **Add a README**. The right sidebar shows **About** (No description, website, or top), **Releases** (No releases published), and **Packages** (No packages published).

- A comment is added in **add.c** file in GITHUB manually.

First_Project_HUAWEI / add.c in master

<> Edit file

👁 Preview changes

```
1  #include <stdio.h>
2  int main()
3  {
4      int number1=1, number2=2, sum;
5      sum = number1 + number2;
6      printf("%d + %d = %d", number1, number2, sum);
7      return 0;
8  }
```

- Commit the edited file in GITHUB.



Search or jump to...



Pull requests Issues Market



Karthik-V-g / First_Project_HUAWEI

Public

<> Code

🕒 Issues

🔗 Pull requests

🎬 Actions

📁 Projects

First_Project_HUAWEI / add.c in master

<> Edit file

👁 Preview changes

```
1  #include <stdio.h>
2  int main()
3  {
4      int number1=1, number2=2, sum;
5      sum = number1 + number2;
6      //Addition of two integers
7      printf("%d + %d = %d", number1, number2, sum);
8      return 0;
9  }
```


Using **git pull origin master** command the GITHUB repository is downloaded and can be locally used in our system.

```
C:\Users\HP\OneDrive\Desktop\Huawei intern assignments\GIT\First_Project_Repository>git pull origin master
From https://github.com/Karthik-V-g/First_Project_HUAWEI
* branch      master      -> FETCH_HEAD
Updating 5150ce2..82f8600
Fast-forward
 add.c | 3 ++-
 1 file changed, 2 insertions(+), 1 deletion(-)
```

- You can see the changes affected in our local system - comments are there.



add - Notepad

File Edit Format View Help

```
#include <stdio.h>
int main()
{
    int number1=1, number2=2, sum;
    sum = number1 + number2;
    //Addition of two integers
    printf("%d + %d = %d", number1, number2, sum);
    return 0;
}
```