

# Git commands

## Git init & Git add

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~
$ pwd
/c/Users/Windows 10

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~
$ cd Desktop/

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop
$ cd ts

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ ls
'ADV PYTHON.pdf' 'Bit Manipulation Notes.pdf' 'CORE PYTHON.pdf' Python.pdf python_1.ipynb

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git init
Reinitialized existing Git repository in C:/Users/Windows 10/Desktop/ts/.git/

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git add python_1.ipynb
warning: in the working copy of 'python_1.ipynb', LF will be replaced by CRLF the next time Git touches it

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
    new file:   python_1.ipynb

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    .ipynb_checkpoints/
    ADV PYTHON.pdf
    Bit Manipulation Notes.pdf
    CORE PYTHON.pdf
    Python.pdf
```

## Git commit

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git commit -m "My first commit"
[master (root-commit) effb98c] My first commit
 1 file changed, 1018 insertions(+)
 create mode 100644 python_1.ipynb

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    .ipynb_checkpoints/
    ADV PYTHON.pdf
    Bit Manipulation Notes.pdf
    CORE PYTHON.pdf
    Python.pdf

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

## Git show

```
$ git show
commit effb98ce590d749685a5e05eef043ff666a27f14 (HEAD -> master)
Author: Saisree5 <saisree0403@gmail.com>
Date: Thu May 16 19:57:53 2024 +0530

    My first commit

diff --git a/python_1.ipynb b/python_1.ipynb
new file mode 100644
index 0000000..f9a8202
--- /dev/null
+++ b/python_1.ipynb
@@ -0,0 +1,1018 @@
+{
+  "cells": [
+    {
+      "cell_type": "code",
+      "execution_count": 1,
+      "id": "57659c5e",
+      "metadata": {},
+      "outputs": [
+        {
+          "name": "stdout",
+          "output_type": "stream",
+          "text": [
+            "Welcome\n"
+          ]
+        }
+      ],
+      "source": [
+        "print(\"Welcome\")"
+      ]
+    },
+    {
+      "cell_type": "code",
+      "execution_count": 2,
+      "id": "8700a3aa",
+      "metadata": {},
+      "outputs": [],
+      "source": [
+        "#Datatypes"
+      ]
+    },
+    {
+      "cell_type": "code",
+      "execution_count": 6,
+      "id": "90a52628",
+      "metadata": {},
+      "outputs": [
+        {
+          "name": "stdout",
+          "output_type": "stream",
+          "text": [
+            "Welcome\n"
+          ]
+        }
+      ],
+      "source": [
+        "print(\"Welcome\")"
+      ]
+    }
+  ],
+  "metadata": {
+    "kernelspec": {
+      "display_name": "Python 3",
+      "language": "python",
+      "name": "python3"
+    },
+    "language_info": {
+      "codemirror_mode": "python",
+      "file_extension": ".py",
+      "mimetype": "text/x-python",
+      "name": "python",
+      "nb_annotate_cell": false,
+      "nb_convert": {
+        "to_ipynb": {
+          "version": 4
+        }
+      },
+      "pygments_lexer": "ipython3",
+      "version": "3.10.12"
+    }
+  },
+  "nbformat": 4,
+  "nbformat_minor": 4
+}
```

## Git log

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git log
commit effb98ce590d749685a5e05eef043ff666a27f14 (HEAD -> master)
Author: Saisree5 <saisree0403@gmail.com>
Date: Thu May 16 19:57:53 2024 +0530

    My first commit

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git log --oneline
effb98c (HEAD -> master) My first commit
```

## Git config

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git config --global user.name "SaiSreeSajja"

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git config --global user.email "saisree.sajja@thundersoft.com"
```

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git config --global user.email
saisree.sajja@thundersoft.com

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git config --global user.name
SaiSreeSajja
```

## Git remote

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git remote add origin https://github.com/SaiSreeSajja/Python.git
```

## Git push

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git push origin master
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 2.91 KiB | 372.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'master' on GitHub by visiting:
remote:   https://github.com/SaiSreeSajja/Python/pull/new/master
remote:
To https://github.com/SaiSreeSajja/Python.git
 * [new branch]      master -> master
```

## Git diff

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (main)
$ git diff 76476af effb98c
diff --git a/python_2.ipynb b/python_2.ipynb
deleted file mode 100644
index ee1ef58..0000000
--- a/python_2.ipynb
+++ /dev/null
@@ -1,1286 +0,0 @@
- {
-   "cells": [
-     {
-       "cell_type": "code",
-       "execution_count": 2,
-       "id": "7a714449",
-       "metadata": {},
-       "outputs": [
-         {
-           "name": "stdout",
-           "output_type": "stream",
-           "text": [
-             "Welcome\n",
-             "Welcome\n",
-             "2129102078160 2129102078160\n"
-           ]
-         }
-       ],
-       "source": [
-         "def greets():\n",
-         "    print(\"Welcome\")\n",
-         "wish=greets\n",
-         "greets()\n",
-         "wish()\n",
-         "#function aliasing\n",
-         "print(id(wish),id(greets))"
-       ]
-     },
-     {
-       "cell_type": "code",
-       "execution_count": 3,
-       "id": "77f3826f",
-       "metadata": {},
-       "outputs": [
-         {
-           "name": "stdout",
-           "output_type": "stream",

```

## Git branch

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (main)
$ git branch
* main
  master

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (main)
$ git checkout master
Switched to branch 'master'

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git branch first

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git checkout first
Switched to branch 'first'

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (first)
$ cat > file1
Hello welcome everyone

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (first)
$ git checkout master
Switched to branch 'master'
```

## Git checkout

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (first)
$ git branch
* first
  main
  master
  second

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (first)
$ git checkout second
Switched to branch 'second'

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (second)
$ cat > file3
hlo this is file3
```

## Git merge

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (second)
$ git checkout first
Switched to branch 'first'

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (first)
$ git add file1 file2
warning: in the working copy of 'file1', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'file2', LF will be replaced by CRLF the next time Git touches it

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (first)
$ git commit -m "first branch commits"
[first 4230384] first branch commits
 2 files changed, 2 insertions(+)
 create mode 100644 file1
 create mode 100644 file2

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (first)
$ git checkout second
Switched to branch 'second'

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (second)
$ git add file3
warning: in the working copy of 'file3', LF will be replaced by CRLF the next time Git touches it

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (second)
$ git commit -m "second branch commits"
[second 1d5bcfc] second branch commits
 1 file changed, 1 insertion(+)
 create mode 100644 file3
```

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (second)
$ git merge first
Merge made by the 'ort' strategy.
 file1 | 1 +
 file2 | 1 +
 2 files changed, 2 insertions(+)
 create mode 100644 file1
 create mode 100644 file2

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (second)
$ git branch
  first
  main
  master
* second
```

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (second)
$ git log --oneline
6075546 (HEAD -> second) Merge branch 'first' into second
1d5bcfc second branch commits
4230384 (first) first branch commits
0700ec3 (origin/master, master) Second Commit
effb98c My first commit
```

## Git rebase

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git rebase 6075546
Successfully rebased and updated refs/heads/master.

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git log --oneline
6075546 (HEAD -> master, second) Merge branch 'first' into second
1d5bcfc second branch commits
4230384 (first) first branch commits
0700ec3 (origin/master) Second Commit
effb98c My first commit
```

## Git reset

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git reset 4230384

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git log --oneline
4230384 (HEAD -> master, first) first branch commits
0700ec3 (origin/master) Second Commit
effb98c My first commit
```

## Git revert

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git revert 4230384
[master a6c3817] Revert "first branch commits"
 2 files changed, 2 deletions(-)
 delete mode 100644 file1
 delete mode 100644 file2

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git log --oneline
a6c3817 (HEAD -> master) Revert "first branch commits"
4230384 (first) first branch commits
0700ec3 (origin/master) Second Commit
effb98c My first commit
```

## Git blame

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ cat > file1
hello

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git add file1
warning: in the working copy of 'file1', LF will be replaced by CRLF the next time Git touches it

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git commit -m "file1"
[master 8ad2ab2] file1
1 file changed, 1 insertion(+)
create mode 100644 file1

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ cat > file1
hello
everyone

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git add file1
warning: in the working copy of 'file1', LF will be replaced by CRLF the next time Git touches it

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git commit -m "file1"
[master 9d0b468] file1
1 file changed, 1 insertion(+)

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git blame file1
8ad2ab27 (SaiSreeSajja 2024-05-22 18:29:59 +0530 1) hello
9d0b4682 (SaiSreeSajja 2024-05-22 18:30:18 +0530 2) everyone
```

## Git status

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   file1

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        .ipynb_checkpoints/
        ADV PYTHON.pdf
        Bit Manipulation Notes.pdf
        CORE PYTHON.pdf
        Python.pdf
        Python/
        file3
        git commands.rtf
        pat.txt
        text.txt
        ~$t commands.rtf
```



## Git restore

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git restore --staged file1

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (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:   file1

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        .ipynb_checkpoints/
        ADV PYTHON.pdf
        Bit Manipulation Notes.pdf
        CORE PYTHON.pdf
        Python.pdf
        Python/
        file3
        git commands.rtf
        pat.txt
        text.txt
        ~$t commands.rtf

no changes added to commit (use "git add" and/or "git commit -a")

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git restore file1

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        .ipynb_checkpoints/
        ADV PYTHON.pdf
        Bit Manipulation Notes.pdf
        CORE PYTHON.pdf
        Python.pdf
        Python/
        file3
        git commands.rtf
        pat.txt
        text.txt
        ~$t commands.rtf

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

## Git rm

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git rm file1
rm 'file1'

Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        deleted:    file1

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        .ipynb_checkpoints/
        ADV PYTHON.pdf
        Bit Manipulation Notes.pdf
        CORE PYTHON.pdf
        Python.pdf
        Python/
        file3
        git commands.rtf
        pat.txt
        text.txt
        ~$t commands.rtf
```

## Git fetch

```
Windows 10@DESKTOP-F5Q0D1V MINGW64 ~/Desktop/ts (master)
$ git fetch https://github.com/SaiSreeSajja/Git.git
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 857 bytes | 6.00 KiB/s, done.
From https://github.com/SaiSreeSajja/Git
 * branch                HEAD              -> FETCH_HEAD
```

## Git clone

```
Windows 10@DESKTOP-F5QOD1V MINGW64 ~/Desktop/ts (master)
$ git clone https://github.com/SaiSreeSajja/Git.git
Cloning into 'Git'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (3/3), done.

Windows 10@DESKTOP-F5QOD1V MINGW64 ~/Desktop/ts (master)
$ cd Git

Windows 10@DESKTOP-F5QOD1V MINGW64 ~/Desktop/ts/Git (main)
$ cat > information
This repository has the commands and how there are used along with screen shots

Windows 10@DESKTOP-F5QOD1V MINGW64 ~/Desktop/ts/Git (main)
$ git push origin main
Everything up-to-date

Windows 10@DESKTOP-F5QOD1V MINGW64 ~/Desktop/ts/Git (main)
$ git add information
warning: in the working copy of 'information', LF will be replaced by CRLF the next time Git touches it

Windows 10@DESKTOP-F5QOD1V MINGW64 ~/Desktop/ts/Git (main)
$ git commit -m "description"
[main ec03e74] description
1 file changed, 1 insertion(+)
create mode 100644 information

Windows 10@DESKTOP-F5QOD1V MINGW64 ~/Desktop/ts/Git (main)
$ git push origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 352 bytes | 88.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/SaiSreeSajja/Git.git
fa41287..ec03e74 main -> main
```