Full stack
Bootcamp

Practicing Git

Sprints

shows the current Git version


```
MINGW64:/e/Sprints/week_one/Practicing Git/Sprints-SWCM-Task                    —    □    ×

Windows 10@DESKTOP-37HKSLE MINGW64 /e/Sprints/week_one/Practicing Git
$ git --version
git version 2.40.0.windows.1
```

showing the Git Help results


```
MINGW64:/e/Sprints/week_one/Practicing Git/Sprints-SWCM-Task

Windows 10@DESKTOP-37HKSLE MINGW64 /e/Sprints/week_one/Practicing Git
$ git help
usage: git [-v | --version] [-h | --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>]
           [--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.
```

showing the configured user name and email showing

MINGW64:/e/Sprints/week_one/Practicing Git/Sprints-SWCM-Task

```
Windows 10@DESKTOP-37HKSLE MINGW64 /e/Sprints/week_one/Practicing Git
$ git config --global user.name "ABDALLA ALSAEED"

Windows 10@DESKTOP-37HKSLE MINGW64 /e/Sprints/week_one/Practicing Git
$ git config --global user.email "sabdalla546@gmail.com"
```

showing the cloning command result

MINGW64:/e/Sprints/week_one/Practicing Git/Sprints-SWCM-Task

```
Windows 10@DESKTOP-37HKSLE MINGW64 /e/Sprints/week_one/Practicing Git
$ git clone https://github.com/sabdalla546/Sprints-SWCM-Task.git
Cloning into 'Sprints-SWCM-Task'...
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.
```

showing the commit history


```
Windows 10@DESKTOP-37HKSLE MINGW64 /e/Sprints/week_one/Practicing Git/Sprints-SW
CM-Task (main)
$ git log
commit 70ae545fe771361f1dad712bc4984d8d7eacdf54 (HEAD -> main)
Author: ABDALLA ALSAEED <sabdalla546@gmail.com>
Date:   Fri May 5 03:22:41 2023 +0300

    first commit in main

commit 87fffcac317eea3f80498741a2246316e175dfde (origin/main, origin/HEAD)
Author: sabdalla546 <64744897+sabdalla546@users.noreply.github.com>
Date:   Fri May 5 03:17:56 2023 +0300

    Initial commit
```

shows the push command results


```
Windows 10@DESKTOP-37HKSLE MINGW64 /e/Sprints/week_one/Practicing Git/Sprints-SW
CM-Task (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% (2/2), done.
Writing objects: 100% (3/3), 303 bytes | 303.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/sabdalla546/Sprints-SWCM-Task.git
   87fffca..70ae545  main -> main
```

shows the commit history for two branches

```
commit 85477e6097d4a8c1302d0850470dd9b1f8a6316b (featureY)
Author: ABDALLA ALSAEED <sabdalla546@gmail.com>
Date:    Fri May 5 03:46:16 2023 +0300

    first commit feature Y

commit 33cf52576d127958a66b28b5143a394c1be454ab
Author: ABDALLA ALSAEED <sabdalla546@gmail.com>
Date:    Fri May 5 03:41:25 2023 +0300

    first commit in feature X

commit 70ae545fe771361f1dad712bc4984d8d7eacdf54 (origin/main, origin/HEAD)
Author: ABDALLA ALSAEED <sabdalla546@gmail.com>
Date:    Fri May 5 03:22:41 2023 +0300

    first commit in main

commit 87fffcac317eea3f80498741a2246316e175dfde
Author: sabdalla546 <64744897+sabdalla546@users.noreply.github.com>
Date:    Fri May 5 03:17:56 2023 +0300

    Initial commit
```
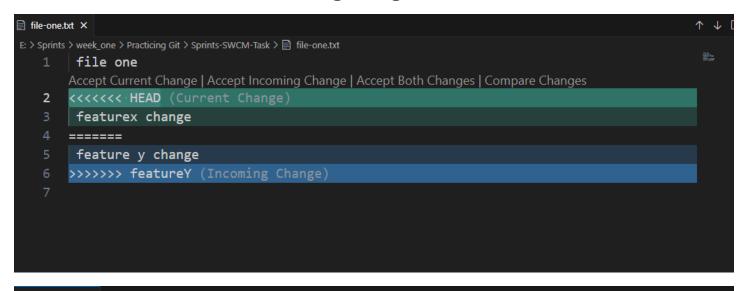
merging the featureX branch

```
Windows 10@DESKTOP-37HKSLE MINGW64 /e/Sprints/week_one/Practicing Git/Sprints-SWCM-Task (main)
$ git merge featureX
Updating 70ae545..33cf525
Fast-forward
 file-one.txt | 1 +
 1 file changed, 1 insertion(+)
```

merging the featureY branch

```
Windows 10@DESKTOP-37HKSLE MINGW64 /e/Sprints/week_one/Practicing Git/Sprints-SWCM-Tas
k (main)
$ git merge featureY
Auto-merging file-one.txt
CONFLICT (content): Merge conflict in file-one.txt
Automatic merge failed; fix conflicts and then commit the result.

Windows 10@DESKTOP-37HKSLE MINGW64 /e/Sprints/week_one/Practicing Git/Sprints-SWCM-Tas
k (main|MERGING)
$
```

resolving merge conflict

```
file-one.txt ✕                                                    ↑ ↓

E: > Sprints > week_one > Practicing Git > Sprints-SWCM-Task > file-one.txt
  1    file one
       Accept Current Change | Accept Incoming Change | Accept Both Changes | Compare Changes
  2  <<<<<<< HEAD (Current Change)
  3    featurex change
  4  =======
  5    feature y change
  6  >>>>>>> featureY (Incoming Change)
  7
```

```
file-one.txt ●

E: > Sprints > week_one > Practicing Git > Sprints-SWCM-Task > file-one.txt
  1    file one
  2    featurex change
  3
  4
  5
  6
```

showing the commit history

```
MINGW64:/e/Sprints/week_one/Practicing Git/Sprints-SWCM-Task

Windows 10@DESKTOP-37HKSLE MINGW64 /e/Sprints/week_one/Practicing Git/Sprints-SWCM-Task (main)
$ git merge featureY
Already up to date.

Windows 10@DESKTOP-37HKSLE MINGW64 /e/Sprints/week_one/Practicing Git/Sprints-SWCM-Task (main)
$ git log
commit 53ee8a0ac82d34fc6b934430e418da9f9c711986 (HEAD -> main)
Merge: 33cf525 85477e6
Author: ABDALLA ALSAEED <sabdalla546@gmail.com>
Date:   Fri May 5 04:15:17 2023 +0300

    conflict solved

commit 85477e6097d4a8c1302d0850470dd9b1f8a6316b (featureY)
Author: ABDALLA ALSAEED <sabdalla546@gmail.com>
Date:   Fri May 5 03:46:16 2023 +0300

    first commit feature Y

commit 33cf52576d127958a66b28b5143a394c1be454ab
Author: ABDALLA ALSAEED <sabdalla546@gmail.com>
Date:   Fri May 5 03:41:25 2023 +0300

    first commit in feature X

commit 70ae545fe771361f1dad712bc4984d8d7eacdf54 (origin/main, origin/HEAD)
Author: ABDALLA ALSAEED <sabdalla546@gmail.com>
Date:   Fri May 5 03:22:41 2023 +0300

    first commit in main

commit 87fffcac317eea3f80498741a2246316e175dfde
Author: sabdalla546 <64744897+sabdalla546@users.noreply.github.com>
Date:   Fri May 5 03:17:56 2023 +0300

    Initial commit
```