

Git Tutorial

24 June 2018 17:50

```
krishna@Geetha-PC MINGW64 /f
$ pwd
/f
```

```
krishna@Geetha-PC MINGW64 /f
$ mkdir -p repos/example
```

```
krishna@Geetha-PC MINGW64 /f
$ cd repos/example
```

```
krishna@Geetha-PC MINGW64 /f/repos/example
$ git init
Initialized empty Git repository in F:/repos/example/.git/
```

```
krishna@Geetha-PC MINGW64 /f/repos/example (master)
$
krishna@Geetha-PC MINGW64 /f/repos/example (master)
$ ls -altr
total 4
drwxr-xr-x 1 krishna 197609 0 Jun 24 17:47 ../
drwxr-xr-x 1 krishna 197609 0 Jun 24 17:48 ./
drwxr-xr-x 1 krishna 197609 0 Jun 24 17:48 .git/
```

```
krishna@Geetha-PC MINGW64 /f/repos/example (master)
$ touch index.html
```

```
krishna@Geetha-PC MINGW64 /f/repos/example (master)
$ ls -ltr
total 0
-rw-r--r-- 1 krishna 197609 0 Jun 24 17:53 index.html
```

```
krishna@Geetha-PC MINGW64 /f/repos/example (master)
$ git status
On branch master
```

Initial commit

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

index.html

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

```
krishna@Geetha-PC MINGW64 /f/repos/example (master)
$ git add -A
[-A option tells Git to add all untracked files, even though in this case
there's only one.]
$ git status
On branch master
```

Initial commit

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

new file: index.html

Git Tutorial-II

24 June 2018 18:01

```
krishna@Geetha-PC MINGW64 /f/repos/example (master)
$ git commit -m "Initialize repository"
[master (root-commit) 899f377] Initialize repository
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 index.html
krishna@Geetha-PC MINGW64 /f/repos/example (master)
$ git log
commit 899f3775b5712998e755b49cc8d6f45771f8713b
Author: krishnamohan-seelam <krishnamohan.seelam@outlook.com>
Date: Sun Jun 24 18:05:50 2018 +0530
```

Initialize repository

```
krishna@Geetha-PC MINGW64 /f/repos/example (master)
$ echo "hello, world" > index.html
```

```
krishna@Geetha-PC MINGW64 /f/repos/example (master)
$ git diff
diff --git a/index.html b/index.html
index e69de29..4b5fa63 100644
--- a/index.html
+++ b/index.html
@@ -0,0 +1 @@
+hello, world
warning: LF will be replaced by CRLF in index.html.
```

```
krishna@Geetha-PC MINGW64 /f/repos/example (master)
$ git commit -a -m "Add content to index.html"
warning: LF will be replaced by CRLF in index.html.
The file will have its original line endings in your working directory.
[master 7756a60] Add content to index.html
1 file changed, 1 insertion(+)
```

[The file will have its original line endings in your working directory.
Note that the `-a` option includes changes only to files already added to the repository, so when there are new files it's important to run `git add -A`]

```
krishna@Geetha-PC MINGW64 /f/repos/example (master)
$ git log
commit 7756a60744b42907e45bda36cc7180b689ac250f
Author: krishnamohan-seelam <krishnamohan.seelam@outlook.com>
Date: Sun Jun 24 18:13:40 2018 +0530
```

Add content to index.html

```
commit 899f3775b5712998e755b49cc8d6f45771f8713b
Author: krishnamohan-seelam <krishnamohan.seelam@outlook.com>
Date: Sun Jun 24 18:05:50 2018 +0530
```

Initialize repository

Git Tutorial -III

24 June 2018 18:18

```
krishna@Geetha-PC MINGW64 /f/repos/example (master)
```

```
$ git diff
```

```
diff --git a/index.html b/index.html
```

```
index 4b5fa63..8e18dba 100644
```

```
--- a/index.html
```

```
+++ b/index.html
```

```
@@ -1 +1,5 @@
```

```
-hello, world
```

```
+<html>
```

```
+<body>
```

```
+<h1>hello, world</h1>
```

```
+</body>
```

```
+</html>
```

```
warning: LF will be replaced by CRLF in index.html.
```

```
The file will have its original line endings in your working directory.
```

```
krishna@Geetha-PC MINGW64 /f/repos/example (master)
```

```
$ git commit -am "Add an h1 tag"
```

```
warning: LF will be replaced by CRLF in index.html.
```

```
The file will have its original line endings in your working directory.
```

```
[master c69d005] Add an h1 tag
```

```
1 file changed, 5 insertions(+), 1 deletion(-)
```

[Using the `-am` combination ,both the `-a` and `-m` options to commit all pending changes while adding a commit message]

Command	Description	Example
<code>git help</code>	Get help on a command	<code>\$ git help push</code>
<code>git config</code>	Configure Git	<code>\$ git config --global ...</code>
<code>source <file></code>	Activate Bash changes	<code>\$ source ~/.bash_profile</code>
<code>mkdir -p</code>	Make intermediate directories as necessary	<code>\$ mkdir -p repos/website</code>
<code>git status</code>	Show the status of the repository	<code>\$ git status</code>
<code>touch <name></code>	Create empty file	<code>\$ touch foo</code>
<code>git add -A</code>	Add all files or directories to staging area	<code>\$ git add -A</code>
<code>git add <name></code>	Add given file or directory to staging area	<code>\$ git add foo</code>
<code>git commit -m</code>	Commit staged changes with a message	<code>\$ git commit -m "Add thing"</code>
<code>git commit -am</code>	Stage and commit changes with a message	<code>\$ git commit -am "Add thing"</code>
<code>git diff</code>	Show diffs between commits, branches, etc.	<code>\$ git diff</code>
<code>git commit --amend</code>	Amend the last commit	<code>\$ git commit --amend</code>
<code>git show <SHA></code>	Show diff vs. the SHA	<code>\$ git show fb738e...</code>

Git Tutorial -IV

24 June 2018 18:18

Create repo on github with same name as local.

The screenshot shows the GitHub interface for a repository named 'example' by user 'krishnamohan-seelam'. At the top, there are buttons for 'Unwatch', 'Star' (0), and 'Fork' (0). Below the repository name, there are tabs for 'Code', 'Issues' (0), 'Pull requests' (0), 'Projects' (0), 'Wiki', 'Insights', and 'Settings'. The main content area has a light blue background and contains three sections:

- Quick setup — if you've done this kind of thing before**: This section offers two methods to clone the repository: 'Set up in Desktop' and 'HTTPS' (selected). The HTTPS URL is `https://github.com/krishnamohan-seelam/example.git`. A note below states: 'We recommend every repository include a README, LICENSE, and .gitignore.'
- ...or create a new repository on the command line**: This section provides a series of terminal commands to initialize a new repository and push it to GitHub:

```
echo "# example" >> README.md
git init
git add README.md
git commit -m "first commit"
git remote add origin https://github.com/krishnamohan-seelam/example.git
git push -u origin master
```
- ...or push an existing repository from the command line**: This section provides commands to add a new remote origin and push the local master branch:

```
git remote add origin https://github.com/krishnamohan-seelam/example.git
git push -u origin master
```

krishna@Geetha-PC MINGW64 /f/repos/example (master)

```
$ git remote add origin https://github.com/krishnamohan-seelam/example.git
```

krishna@Geetha-PC MINGW64 /f/repos/example (master)

```
$ git push -u origin master
```

fatal: AggregateException encountered.

One or more errors occurred.

Username for '<https://github.com>': krishnamohan-seelam

Counting objects: 9, done.

Delta compression using up to 4 threads.

Compressing objects: 100% (4/4), done.

Writing objects: 100% (9/9), 735 bytes | 0 bytes/s, done.

Total 9 (delta 0), reused 0 (delta 0)

To <https://github.com/krishnamohan-seelam/example.git>

* [new branch] master -> master

Branch master set up to track remote branch master from origin.

This screenshot shows the same GitHub repository page, but now displaying the content of the `index.html` file. The file is 6 lines long (5 SLOC) and 52 bytes. The content is a simple HTML document:

```
1 <html>
2 <body>
3 <h1>hello, world</h1>
4 </body>
5 </html>
```

The page also shows the commit history for this file, with the most recent commit by 'krishnamohan-seelam' adding an h1 tag, committed 32 minutes ago. The commit hash is `c69d005`. The page includes navigation links for 'Raw', 'Blame', and 'History'.