

Git assaingment

```
(base) hemanthreddy@Hemanths-MacBook-Air-3 ~ % cd -
(base) hemanthreddy@Hemanths-MacBook-Air-3 ~ % mkdir first_git_repo
mkdir: first_git_repo: File exists
(base) hemanthreddy@Hemanths-MacBook-Air-3 ~ % cd first_git_repo
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git init
Initialized empty Git repository in /Users/hemanthreddy/first_git_repo/.git/
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % echo "Git development began in April 2005 after many developers of the Linux kernel gave up access to BitKeeper, a proprietary source control management system that had previously been used to maintain the project.[10] The copyright holder of BitKeeper, Larry McVoy, had withdrawn gratis use of the product after claiming that Andrew Tridgell had reverse-engineered the BitKeeper protocols. Torvalds wanted a distributed system that he could use like BitKeeper, but none of the available free systems met his needs, particularly in terms of performance. Torvalds took an example of an SCM system requiring thirty seconds to apply a patch and update all associated metadata, and noted that this would not scale to the needs of Linux kernel development, where syncing with fellow maintainers could require 250 such actions at a time. He wanted patching to take three seconds,[6] and had several other design criteria in mind: take Concurrent Versions System (CVS) as an example of what not to do; if in doubt, make the exact opposite decision[8] support a distributed, BitKeeper-like workflow[8] very strong safeguards against corruption, either accidental or malicious.[7] These three criteria eliminated every then-existing version control system, except for Monotone. Considering performance excluded this too.[8] So immediately after the 2.6.12-rc2 Linux kernel development release,[8] Torvalds set out to write his own.[8] Torvalds has quipped about the name git, which is British English slang meaning 'unpleasant person'. Torvalds said: 'I'm an egotistical bastard, and I name all my projects after myself. First 'Linux', now 'git'. [11][12] The man page describes Git as 'the stupid content tracker'. [13] The development of Git began on 3 April 2005.[14] The project was announced on 6 April,[15], and became self-hosting as of 7 April.[16] The first merge of multiple branches was done on 18 April.[16] Torvalds achieved his performance goals; on 29 April, the nascent Git was benchmarked recording patches to the Linux kernel tree at the rate of 6.7 per second.[17] On 16 June Git managed the kernel 2.6.12 release.[18] Torvalds turned over maintenance on 26 July 2005 to Junio Hamano, a major contributor to the project.[19] Hamano was responsible for the 1.0 release on 21 December 2005, and remains the project's maintainer.[20]" > hello_world
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git add hello_world
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git commit -m "Initial commit with hello_world"
[master (root-commit) 1111111] Initial commit with hello_world
1 file changed, 1 insertion(+), 0 deletions(-)
create mode 100644 hello_world
```

```
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git remote add origin git@github.com:hemanthannem/zemoso-training.git
error: remote origin already exists.
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git branch -M main
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git push -u origin main
git@github.com: Permission denied (publickey).
fatal: Could not read from remote repository.
```

Please make sure you have the correct access rights and the repository exists.

```
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % ssh-keygen
Generating public/private ed25519 key pair.
Enter file in which to save the key (/Users/hemanthreddy/.ssh/id_ed25519):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /Users/hemanthreddy/.ssh/id_ed25519
Your public key has been saved in /Users/hemanthreddy/.ssh/id_ed25519.pub
The key fingerprint is:
SHA256:uH8BwK/s6N6d1kwn1fRc80+ocB+972NqW9BZGMw5Pk hemanthreddy@Hemanths-MacBook-Air-3.local
The key's randomart image is:
+--[ED25519 256]--+
|      .+..      |
|     * O .      |
|    o o oo.     |
|   . . O .O.    |
|  = S O E . O   |
|   * * . . . .  |
|  . . * O . O   |
| O . . = . . . .|
| .oo+.+. .O.   |
|+-----[SHA256]-----+
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % cat /Users/hemanthreddy/.ssh/id_ed25519.pub
ssh-ed25519 AAAAC3NzaC1lZD01NTFEGAAA1J0hRpkTEKYFFrTyr11wNNV2+3k9tQwSbVRqPw hemanthreddy@Hemanths-MacBook-Air-3.local
```

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(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % cat /Users/hemanthreddy/.ssh/id_ed25519.pub
ssh-ed25519 AAAAC3NzaC1lZD01NTFEGAAA1J0hRpkTEKYFFrTyr11wNNV2+3k9tQwSbVRqPw hemanthreddy@Hemanths-MacBook-Air-3.local
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git push -u origin main
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (6/6), 1.57 KiB | 1.57 MiB/s, done.
Total 6 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2), done.
To github.com:hemanthannem/zemoso-training.git
+ (new branch) main -> main
branch 'main' set up to track 'origin/main'.
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % sed -i '' 's/to/hemu/g' hello_world
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git diff
diff --git a/hello_world b/hello_world
index 6d2c08..92c6258 100644
--- a/hello_world
+++ b/hello_world
@@ -1,1 @@
00 -1 1 00
```

Git development began in April 2005 after many developers of the Linux kernel gave up access to BitKeeper, a proprietary source control management system that had previously been used to maintain the project.[10] The copyright holder of BitKeeper, Larry McVoy, had withdrawn gratis use of the product after claiming that Andrew Tridgell had reverse-engineered the BitKeeper protocols. Torvalds wanted a distributed system that he could use like BitKeeper, but none of the available free systems met his needs, particularly in terms of performance. Torvalds took an example of an SCM system requiring thirty seconds to apply a patch and update all associated metadata, and noted that this would not scale to the needs of Linux kernel development, where syncing with fellow maintainers could require 250 such actions at a time. He wanted patching to take three seconds,[6] and had several other design criteria in mind: take Concurrent Versions System (CVS) as an example of what not to do; if in doubt, make the exact opposite decision[8] support a distributed, BitKeeper-like workflow[8] very strong safeguards against corruption, either accidental or malicious.[7] These three criteria eliminated every then-existing version control system, except for Monotone. Considering performance excluded this too.[8] So immediately after the 2.6.12-rc2 Linux kernel development release,[8] Torvalds set out to write his own.[8] Torvalds has quipped about the name git, which is British English slang meaning 'unpleasant person'. Torvalds said: 'I'm an egotistical bastard, and I name all my projects after myself. First 'Linux', now 'git'. [11][12] The man page describes Git as 'the stupid content tracker'. [13] The development of Git began on 3 April 2005.[14] The project was announced on 6 April,[15], and became self-hosting as of 7 April.[16] The first merge of multiple branches was done on 18 April.[16] Torvalds achieved his performance goals; on 29 April, the nascent Git was benchmarked recording patches to the Linux kernel tree at the rate of 6.7 per second.[17] On 16 June Git managed the kernel 2.6.12 release.[18] Torvalds turned over maintenance on 26 July 2005 to Junio Hamano, a major contributor to the project.[19] Hamano was responsible for the 1.0 release on 21 December 2005, and remains the project's maintainer.[20]

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```
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git add hello_world
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git commit -m "Replaced 'to' with 'hemu'"
[main dbad9f9] Replaced 'to' with 'hemu'
1 file changed, 1 insertion(+), 1 deletion(-)
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git push origin master
error: src refspec master does not match any
error: failed to push some refs to 'github.com:hemanthannem/zemoso-training.git'
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git push origin main
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 394 bytes | 394.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To github.com:hemanthannem/zemoso-training.git
   bc42169..dbad9f9  main -> main
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git revert HEAD
[main 37b7ca5] Revert "Replaced 'to' with 'hemu'"
1 file changed, 1 insertion(+), 1 deletion(-)
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git push origin main
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 396 bytes | 396.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To github.com:hemanthannem/zemoso-training.git
   dbad9f9..37b7ca5  main -> main
```

```
Writing objects: 100% (3/3), 396 bytes | 396.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To github.com:hemanthannem/zemoso-training.git
   dbad9f9..37b7ca5  main -> main
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git checkout -b new_branch
Switched to a new branch 'new_branch'
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % sed -i '' 's/Torvalds/hemu/g' hello_world
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git add hello_world
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git commit -m "Replaced 'Torvalds' with 'hemu' in new_branch"
[new_branch fe4369e] Replaced 'Torvalds' with 'hemu' in new_branch
1 file changed, 1 insertion(+), 1 deletion(-)
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % git push origin new_branch
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 350 bytes | 350.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'new_branch' on GitHub by visiting:
remote:   https://github.com/hemanthannem/zemoso-training/pull/new/new_branch
remote:
To github.com:hemanthannem/zemoso-training.git
 * [new branch]   new_branch -> new_branch
(base) hemanthreddy@Hemanths-MacBook-Air-3 first_git_repo % cd ~
(base) hemanthreddy@Hemanths-MacBook-Air-3 ~ % mkdir git_clone_repo
mkdir: git_clone_repo: File exists
(base) hemanthreddy@Hemanths-MacBook-Air-3 ~ % cd git_clone_repo
(base) hemanthreddy@Hemanths-MacBook-Air-3 git_clone_repo % git clone https://github.com/hemanthannem/zemoso-training.git
Cloning into 'zemoso-training'...
remote: Enumerating objects: 15, done.
remote: Counting objects: 100% (13/13), done.
remote: Compressing objects: 100% (5/5), done.
remote: Total 13 (delta 5), reused 12 (delta 4), pack-reused 0 (from 0)
Receiving objects: 100% (13/13), done.
Resolving deltas: 100% (5/5), done.
```