

# CASE STUDY: “GIT and GITHUB” – How to migrate from Subversion (SVN) to GIT

## 1. Check your current working directory

```
srikar@528014aa64d7583: ~  
srikar@528014aa64d7583:~$ pwd  
/home/srikar
```

## 2. Before starting the migration, ensure you have the following tools installed:

- Git
- Subversion (SVN)
- Git-svn

## 3. Install git-svn

```
srikar@528014aa64d7583:~$ sudo apt-get install git-svn  
[sudo] password for srikar:  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
git-svn is already the newest version (1:2.43.0-1ubuntu7.2).  
0 upgraded, 0 newly installed, 0 to remove and 56 not upgraded.  
srikar@528014aa64d7583:~$ git svn --version  
git-svn version 2.43.0 (svn 1.14.3)
```

## 4. Create a new Git repository and initialize it

```
srikar@528014aa64d7583:~$ mkdir new-git-repo  
srikar@528014aa64d7583:~$ cd new-git-repo  
srikar@528014aa64d7583:~/new-git-repo$ git init  
hint: Using 'master' as the name for the initial branch. This default branch name  
hint: is subject to change. To configure the initial branch name to use in all  
hint: of your new repositories, which will suppress this warning, call:  
hint:  
hint:   git config --global init.defaultBranch <name>  
hint:  
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and  
hint: 'development'. The just-created branch can be renamed via this command:  
hint:  
hint:   git branch -m <name>  
Initialized empty Git repository in /home/srikar/new-git-repo/.git/
```

## 5. Install Subversion

```
srikar@528014aa64d7583:~/new-git-repo$ cd ..  
srikar@528014aa64d7583:~$ sudo apt-get install subversion  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
subversion is already the newest version (1.14.3-1build4).  
0 upgraded, 0 newly installed, 0 to remove and 56 not upgraded.
```

## 6. Creating Branching, Trunks and Tags into the directory

```
srikar@528014aa64d7583:~$ svn mkdir file:///home/srikar/my-svn-repo/trunk file:///home/srikar/my-svn-repo/branch file:///home/srikar/my-svn-repo/tags -m "Initial commit"
Committing transaction...
Committed revision 1.
```

## 7. Create a new directory for Testing

```
srikar@528014aa64d7583:~$ mkdir /home/srikar/my-working-copy
srikar@528014aa64d7583:~$ cd /home/srikar/my-working-copy
srikar@528014aa64d7583:~/my-working-copy$ svn checkout file:///home/srikar/my-svn-repo/trunk /home/srikar/my-working-copy
Checked out revision 1.
```

## 8. Add text into and commit it

## 9. Create a test directory called my-working-copy and add files like test-file.txt and file.txt.

## 10. Add the new files to svn and commit the changes using svn add and svn commit commands.

## 11. Verify the changes using svn log command

## 12. Checkout the repository to work locally

```
srikar@528014aa64d7583:~/my-working-copy$ echo "This is a Test file" > test-file.txt
srikar@528014aa64d7583:~/my-working-copy$ svn add test-file.txt
A
    test-file.txt
srikar@528014aa64d7583:~/my-working-copy$ svn status
A
    test-file.txt
srikar@528014aa64d7583:~/my-working-copy$ svn commit -m "Added test-file.txt"
Adding          test-file.txt
Transmitting file data .done
Committing transaction...
Committed revision 2.
```

## 13. Check for svn log file

```
srikar@528014aa64d7583:~/my-working-copy$ svn log file:///home/srikar/my-svn-repo
-----
r2 | srikar | 2025-01-31 04:09:21 +0000 (Fri, 31 Jan 2025) | 1 line
Added test-file.txt
-----
r1 | srikar | 2025-01-31 04:02:15 +0000 (Fri, 31 Jan 2025) | 1 line
Initial commit
-----
```

## 14. Add text into the file and commit the changes

```
srikar@528014aa64d7583:~/my-working-copy$ echo "Another change!" >> file.txt
srikar@528014aa64d7583:~/my-working-copy$ svn add file.txt
A
    file.txt
srikar@528014aa64d7583:~/my-working-copy$ svn status
A
    file.txt
srikar@528014aa64d7583:~/my-working-copy$ svn commit -m "Changes made to file.txt"
Adding          file.txt
Transmitting file data .done
Committing transaction...
Committed revision 3.
srikar@528014aa64d7583:~/my-working-copy$ svn log file:///home/srikar/my-svn-repo
```

## 15. Check for log files for history

```
srikar@528014aa64d7583:~/my-working-copy$ svn log file:///home/srikar/my-svn-repo
-----
r3 | srikar | 2025-01-31 04:12:05 +0000 (Fri, 31 Jan 2025) | 1 line

Changes made to file.txt
-----
r2 | srikar | 2025-01-31 04:09:21 +0000 (Fri, 31 Jan 2025) | 1 line

Added test-file.txt
-----
r1 | srikar | 2025-01-31 04:02:15 +0000 (Fri, 31 Jan 2025) | 1 line

Initial commit
```

## 16. Import files from svn repo to git repo

```
srikar@528014aa64d7583:~/my-working-copy$ cd ..
srikar@528014aa64d7583:~$ svn import /home/srikar/my-working-copy file:///home/srikar/my-svn-repo/trunk -m "Initial commit"
Skipped 'my-working-copy/.svn/.svn'
svn: E160020: File already exists: filesystem '7c21b206-fdc2-4570-816c-d093c259d144', transaction '3-3', path '/trunk/file.txt'
srikar@528014aa64d7583:~$ svn list file:///home/srikar/my-svn-repo/trunk
file.txt
test-file.txt
```

## 17. Clone the svn

```
srikar@528014aa64d7583:~$ git svn clone file:///home/srikar/my-svn-repo --stdlayout /home/srikar/new-git-repo
r1 = d3a9ca582dee8124006d7642ee51f923b65d42b2 (refs/remotes/origin/trunk)
   A   test-file.txt
r2 = 1860d9dacb54b5768b499c29bf9667205a579fcd (refs/remotes/origin/trunk)
   A   file.txt
r3 = acef29e5ad2485e5712d57545d1996fd34badbcb (refs/remotes/origin/trunk)
Checked out HEAD:
   file:///home/srikar/my-svn-repo/trunk r3
srikar@528014aa64d7583:~$
```

## 18. SVN repository

my-svn-repo




Share View

Linux > Ubuntu > home > srikar > my-svn-repo

Name	Date modified	Type	Size
conf	31-01-2025 09:22	File folder	
db	31-01-2025 09:56	File folder	
hooks	31-01-2025 09:22	File folder	
locks	31-01-2025 09:22	File folder	
format	31-01-2025 09:22	File	1 KB
README	31-01-2025 09:22	Text Document	1 KB

## 19. GIT repository and files

Linux > Ubuntu > home > srikar > new-git-repo >

Name	Date modified	Type	Size
 .git	31-01-2025 10:04	File folder	
 file	31-01-2025 10:04	Text Document	1 KB
 test-file	31-01-2025 10:04	Text Document	1 KB

## 20. Output of GIT where commit history is migrated

```
srikar@528014aa64d7583:~/new-git-repo$ git log
commit acef29e5ad2485e5712d57545d1996fd34badbcb (HEAD -> master, origin/trunk)
Author: srikar <srikar@7c21b206-fdc2-4570-816c-d093c259d144>
Date:   Fri Jan 31 04:12:05 2025 +0000

    Changes made to file.txt

    git-svn-id: file:///home/srikar/my-svn-repo/trunk@3 7c21b206-fdc2-4570-816c-d093c259d144

commit 1860d9dacb54b5768b499c29bf9667205a579fcd
Author: srikar <srikar@7c21b206-fdc2-4570-816c-d093c259d144>
Date:   Fri Jan 31 04:09:21 2025 +0000

    Added test-file.txt

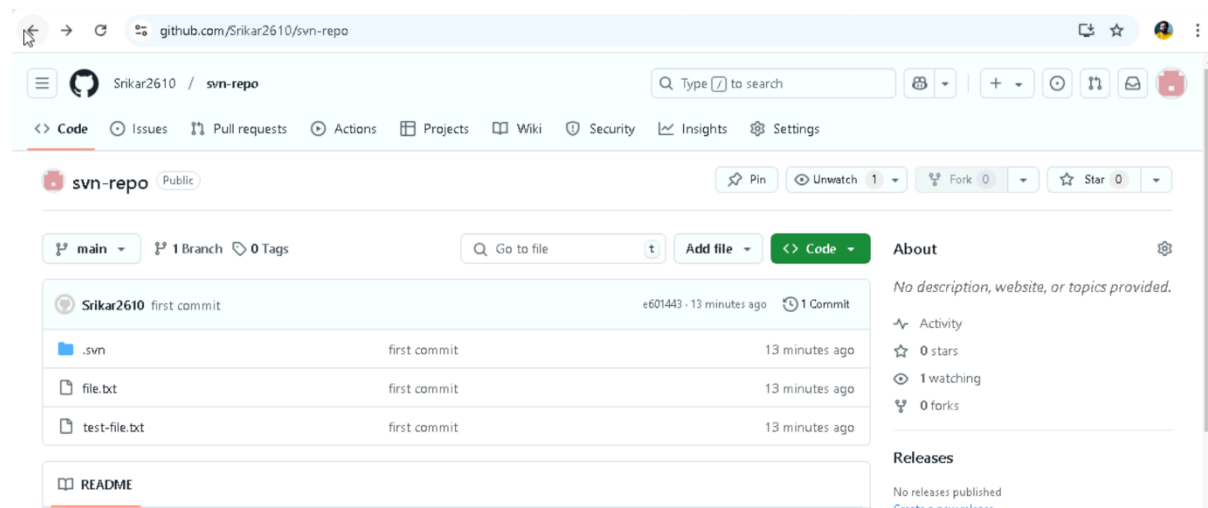
    git-svn-id: file:///home/srikar/my-svn-repo/trunk@2 7c21b206-fdc2-4570-816c-d093c259d144

commit d3a9ca582dee8124006d7642ee51f923b65d42b2
Author: srikar <srikar@7c21b206-fdc2-4570-816c-d093c259d144>
Date:   Fri Jan 31 04:02:15 2025 +0000

    Initial commit

    git-svn-id: file:///home/srikar/my-svn-repo/trunk@1 7c21b206-fdc2-4570-816c-d093c259d144
srikar@528014aa64d7583:~/new-git-repo$
```

## 21. Output of GITHUB where files are pushed into it



The screenshot shows a GitHub repository named 'svn-repo' by user 'Srikar2610'. The repository is public and has 1 branch (main) and 0 tags. The commit history shows a single commit 'first commit' by 'Srikar2610' 13 minutes ago. The commit message is 'first commit'. The files listed in the commit are '.svn', 'file.txt', and 'test-file.txt', all with a message of 'first commit' and a time of '13 minutes ago'. The repository has 0 stars, 1 watching, and 0 forks. The 'About' section states 'No description, website, or topics provided.' and the 'Releases' section states 'No releases published' with a link to 'Create a new release'.