TASK ON GIT AND GITHUB

1)Install git:

```
naren@narendar MINGW64 /d/git_store (master)
$ git --version
git version 2.37.1.windows.1
```

2)Create a repo in github with README.

md and .ignore file:



3)Clone the created repo to local:

```
naren@narendar MINGW64 /d/git_store (naren)
$ git clone git@github.com:narendar-20/abc.git
Cloning into 'abc'...
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 6 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (6/6), done.
naren@narendar MINGW64 /d/git_store (naren)
$ 1s
     alpha f1 f2 hello hotfix sample xyz1 xyz2
abc/
naren@narendar MINGW64 /d/git_store (naren)
$ cd abc/
naren@narendar MINGW64 /d/git_store/abc (main)
$ 1s
README.md
```

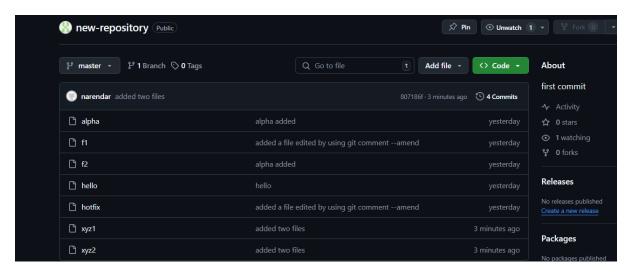
4)Create two files in local repo:

```
naren@narendar MINGW64 /d/git_store (master)
$ touch xyz1 xyz2

naren@narendar MINGW64 /d/git_store (master)
$ ls
alpha f1 f2 hello hotfix xyz1 xyz2

naren@narendar MINGW64 /d/git_store (master)
```

5)Commit two files and push to central Repository:



6)Create a branch in local and create a sample file and push to central:

```
naren@narendar MINGW64 /d/git_store (master)
$ git checkout naren
error: pathspec 'naren' did not match any file(s) known to git
naren@narendar MINGW64 /d/git_store (master)
$ git checkout -b naren
Switched to a new branch 'naren'
naren@narendar MINGW64 /d/git_store (naren)
$ touch sample
 naren@narendar MINGW64 /d/git_store (naren)
$ git add sample
naren@narendar MINGW64 /d/git_store (naren)
$ git commit -m "added sample file"
[naren f0448b5] added sample file
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 sample
 naren@narendar MINGW64 /d/git_store (naren)
$ git push -u orgin naren
fatal: 'orgin' does not appear to be a git repository
fatal: Could not read from remote repository.
Please make sure you have the correct access rights
and the repository exists.
naren@narendar MINGW64 /d/git_store (naren)
$ git push -u origin naren
Enumerating objects: 3, done.
Enumerating objects: 3, done.

Counting objects: 100% (3/3), done.

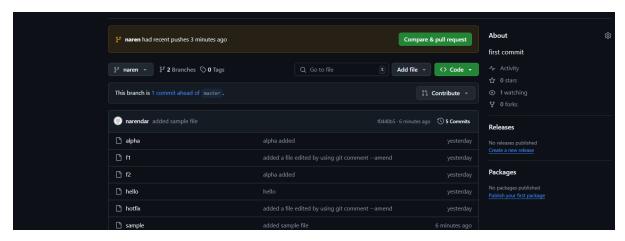
Delta compression using up to 4 threads

Compressing objects: 100% (2/2), done.

Writing objects: 100% (2/2), 229 bytes | 229.00 KiB/s, done.

Total 2 (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 'naren' on GitHub by visiting:
                  https://github.com/narendar-20/new-repository/pull/new/naren
 remote:
remote:
To github.com:narendar-20/new-repository.git
* [new branch] naren -> naren
branch 'naren' set up to track 'origin/naren'.
```



7) Create a branch in github and clone that to local:

8) Merge the created branch with master in git local:

```
naren@narendar MINGW64 /d/git_store (master)

naren@narendar MINGW64 /d/git_store (master)

git merge new-branch
Updating 807186f..f0448b5

Fast-forward
sample | 0

1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 sample

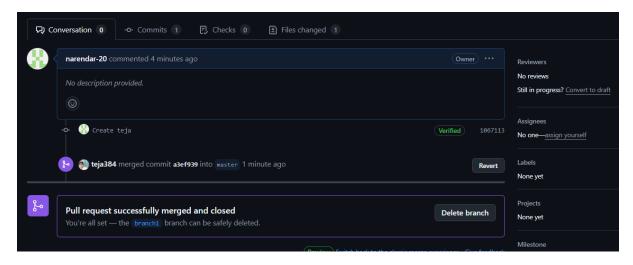
naren@narendar MINGW64 /d/git_store (master)

$ ls
abc/ alpha f1 f2 hello hotfix sample xyz1 xyz2

naren@narendar MINGW64 /d/git_store (master)

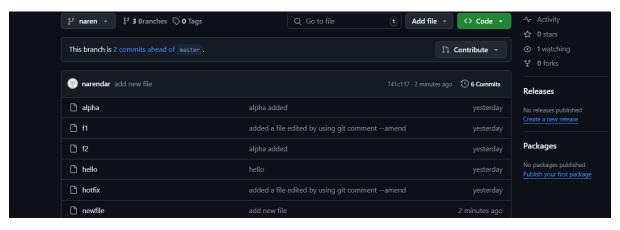
$ |
```

9)Merge the created branch with master in github by sending a pull request:



10) create a file in local and send that to branch in git hub:

```
naren@narendar MINGW64 /d/git_store (master)
$ touch newfile
naren@narendar MINGW64 /d/git_store (master)
$ git checkout naren
Switched to branch 'naren'
Your branch is up to date with 'origin/naren'.
naren@narendar MINGW64 /d/git_store (naren)
$ 1s
abc/ alpha f1 f2 hello hotfix newfile sample xyz1 xyz2
naren@narendar MINGW64 /d/git_store (naren)
$ git add newfile
naren@narendar MINGW64 /d/git_store (naren)
$ git commit -m
error: switch `m' requires a value
naren@narendar MINGW64 /d/git_store (naren)
$ git commit -m "add new file"
[naren 741c117] add new file
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 newfile
naren@narendar MINGW64 /d/git_store (naren)
$ git push -u origin naren
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% (2/2), 228 bytes | 228.00 KiB/s, done.
Total 2 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To github.com:narendar-20/new-repository.git
   f0448b5..741c117 naren -> naren
branch 'naren' set up to track 'origin/naren'.
```



11)clone only a branch from github to local:

```
naren@narendar MINGW64 /d/git_store (naren)

$ git clone -b branch1 git@github.com:narendar-20/new-repository.git
Cloning into 'new-repository'...
remote: Enumerating objects: 15, done.
remote: Counting objects: 100% (15/15), done.
remote: Compressing objects: 100% (9/9), done.
remote: Total 15 (delta 4), reused 14 (delta 3), pack-reused 0 (from 0)
Receiving objects: 100% (15/15), done.
Resolving deltas: 100% (4/4), done.

naren@narendar MINGW64 /d/git_store (naren)
$ cd new-repository

naren@narendar MINGW64 /d/git_store/new-repository (branch1)
$ git branch
* branch1
```

12)create a file with all passwords and make that untrackable with git:

```
naren@narendar MINGW64 ~ (master)

$ vi passwordfile

naren@narendar MINGW64 ~ (master)

$ cat password

new password

naren@narendar MINGW64 ~ (master)

$ git status

On branch master

Changes not staged for commit:

(use "git add/rm <file>..." to update what will be committed)

(use "git restore <file>..." to discard changes in working directory)
```

```
passwordfile
sedawk.bash
string.bash
"\357\200\233[A\357\200\233[B/"
no changes added to commit (use "git add" and/or "git commit -a")
```

13)make a commit and make that commit reset without savings changes:

```
naren@narendar MINGW64 /d/git_store/new-repository (branch1)
$ git add new
naren@narendar MINGW64 /d/git_store/new-repository (branch1)
$ git status
On branch branch1
Your branch is up to date with 'origin/branch1'.
Changes to be committed:

(use "git restore --staged <file>..." to unstage)
        new file:
naren@narendar MINGW64 /d/git_store/new-repository (branch1)
$ git commit -m "added new file"
[branch1 4e392ea] added new file
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 new
naren@narendar MINGW64 /d/git_store/new-repository (branch1)
$ git reset
naren@narendar MINGW64 /d/git_store/new-repository (branch1)
$ git status
On branch branch1
Your branch is ahead of 'origin/branch1' by 1 commit.
  (use "git push" to publish your local commits)
nothing to commit, working tree clean
```

14) Revert a committed commit to the older version:

```
naren@narendar MINGW64 /d/git_store (master)
$ git log -4
commit f0448b5cbf2e0309867c94bba17d682b39008b8e (HEAD -> master, new-branch)
Author: narendar <narendar27@gmail.com>
       Wed Feb 19 14:27:47 2025 +0530
Date:
    added sample file
commit 807186ff5fb4d0123d8af0d23740ff4f9b3e21e6 (origin/master)
Author: narendar <narendar27@gmail.com>
       Wed Feb 19 14:15:35 2025 +0530
Date:
    added two files
commit 1a932be4ab772b4f0b61c294a64403dc19b0707e
Author: narendar <narendar27@gmail.com>
       Tue Feb 18 16:43:34 2025 +0530
Date:
    alpha added
commit dccbb88b6d9f83c940269b932fe29103b1d9e4f1
Author: narendar <narendar27@gmail.com>
       Tue Feb 18 16:20:02 2025 +0530
   hello
naren@narendar MINGW64 /d/git_store (master)
$ git revert dccbb8
[master 4353e1a] Revert "hello"
1 file changed, 1 deletion(-)
naren@narendar MINGW64 /d/git_store (master)
naren@narendar MINGW64 /d/git_store (master)
$ 1s
abc/ f1 f2 hello hotfix new-repository/ sample xyz2
```

15) push a file to stash without savings the changes and work on another file:

```
naren@narendar MINGW64 /d/git_store (master)
$ vi alpha
naren@narendar MINGW64 /d/git_store (master)
$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
nothing added to commit but untracked files present (use "git add"
 to track)
naren@narendar MINGW64 /d/git_store (master)
$ git add .
warning: in the working copy of 'alpha', LF will be replaced by CR
LF the next time Git touches it
naren@narendar MINGW64 /d/git_store (master)
$ git status
On branch master
Changes to be committed:

(use "git restore --staged <file>..." to unstage)

new file: alpha
naren@narendar MINGW64 /d/git_store (master)
$ git stash
Saved working directory and index state WIP on master: 38af69e add
ed a file edited by using git comment --amend
naren@narendar MINGW64 /d/git_store (master)
$ ls
f1 hello hotfix
naren@narendar MINGW64 /d/git_store (master)
$ vi hello
```

16) undo the stash file and start working on that again:

```
naren@narendar MINGW64 /d/git_store (master)
$ git stash list
stash@{0}: WIP on master: 38af69e added a file edited by using git
comment --amend

naren@narendar MINGW64 /d/git_store (master)
$ git stash pop
on branch master
changes to be committed:
   (use "git restore --staged <file>..." to unstage)
        new file: alpha

Dropped refs/stash@{0} (6e4a6211cef0ee3401ef3c5471682d54989c0b81)

naren@narendar MINGW64 /d/git_store (master)
$ ls
alpha f1 hello hotfix
```

17)generate a ssh-keygen and configure into git hub:

```
naren@narendar MINGW64 ~/Desktop/hiring-app (master)
$ cat /c/Users/naren/.ssh/id_rsa.pub
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABgQCyC050E6Qh7h1ttfzgUdAYYWSBRPivmOH9XALZog7Q61XWd9UCE0XI
70X+HU0GIyXt+Gs5mQOYItjp5BFsdokxHNiGx/jtT/Hee7PgbzHP5SbRr3mmadK9PagIDxiIwY1311Ra2D7OJQJBQ6pZ
7Xkj1qpDo6njFkgC/tLjVqSHLOtVp0E7Z8Nah1+vUBoLJw3AvDN2pBM2PhQ/0e1F8K9wnEuZ+DhCj+PkuieXRsH5Iisq
wDWkvfAp4Z2ZX58cpbf159PTyefYvOf3owo9+gOylSIQcBSO6YODs7jvXt2hbMFRaMxDVbyaVqclqOneRFHt8Gwmf6Q;
sAdvL0OIH9D53N9WXj2WAkx51x9NzAQcj+uCTUKWKTIUjMcQlT2US8LFtSFonu9kwb8Nub3TEF2T3YPajlQjPGxFQ6P
jKObKHlCJoMOS4GnD3Nqv2rVF1HMZoOnh+ugVEqSXPHgOIOoo85Aclfous2X6MY5Zmj8WuHWIu2qHJWJOdcQ+M= nare
 anarendar
 naren@narendar MINGW64 ~/Desktop/hiring-app (master)
 $ git push -u origin master
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 4 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (6/6), 502 bytes | 251.00 KiB/s, done.
Total 6 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), done.
To github.com:narendar-20/narendar-01.git
* [new branch] master -> master
branch 'master' set up to track 'origin/master'.
  naren@narendar MINGW64 ~/Desktop/hiring-app (master)
               d 'docker file'
 b
                                                                                                                na
 naren@narendar MINGW64 ~/Desktop/hiring-app (master)
$ git pull
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Countring Objects. 100% (4/4), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (3/3), 928 bytes | 132.00 KiB/s, done.
From github.com:narendar-20/narendar-01
96591a9..abcfc8d master
Updating 96591a9..abcfc8d
                                                     -> origin/master
 Fast-forward
abc | 1 +
1 file changed, 1 insertion(+)
create mode 100644 abc
 naren@narendar MINGW64 ~/Desktop/hiring-app (master)
 $ 1s
                         d 'docker file'
  abc
                                                                                                                          na
```

18) configure webhooks to git hub:

→Install and start Jenkins:

```
[ec2-user@ip-172-31-35-9 -]$ sudo yum update -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
No packages marked for update
[ec2-user@ip-172-31-35-9 -]$ sudo -i
[root@ip-172-31-35-9 -]$ sudo yum install java-11-amazon-corretto -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
-> Running transaction check
---> Package java-11-amazon-corretto.x86_64 1:11.0.26+4-1.amzn2 will be installed
-> Processing Dependency: java-11-amazon-corretto-headless(x86-64) = 1:11.0.26+4-1.amzn2 for package: 1:java-
11-amazon-corretto-11.0.26+4-1.amzn2.x86_64
--> Processing Dependency: libx11 for package: 1:java-11-amazon-corretto-11.0.26+4-1.amzn2.x86_64
--> Processing Dependency: libx1 for package: 1:java-11-amazon-corretto-11.0.26+4-1.amzn2.x86_64
--> Processing Dependency: libxrender for package: 1:java-11-amazon-corretto-11.0.26+4-1.amzn2.x86_64
--> Processing Dependency: libxrander for package: 1:java-11-amazon-corretto-11.0.26+4-1.amzn2.x86_64
--> Processing Dependency: dibxtst for package: 1:java-11-amazon-corretto-11.0.26+4-1.amzn2.x86_64
--> Processing Dependency: dibxtst for package: 1:java-11-amazon-corretto-11.0.26+4-1.amzn2.x86_64
--> Processing Dependency: dijuv-sans-fonts for package: 1:java-11-amazon-corretto-11.0.26+4-1.amzn2.x86_64
--> Processing Dependency: dejavu-sans-fonts for package: 1:java-11-amazon-corretto-11.0.26+4-1.amzn2.x86_64
--> Processing Dependency: dejavu-sans-mono-fonts for package: 1:java-11-amazon-corretto-11.0.26+4-1.amzn2.x86_64
--> Processing Dependency: dejavu-sans-mono-fonts for package: 1:java-11-amazon-corretto-11.0.26+4-1.amzn2.x86_64
--> Processing Dependency: dejavu-sans-mono-fonts noarch 0:2.33-6.amzn2 will be installed
--> Packa
```

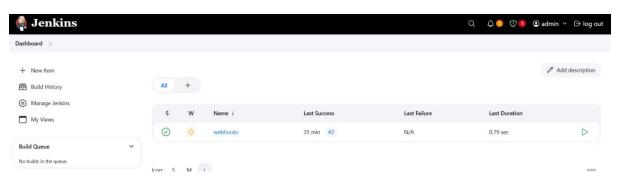
→ Access the Jenkins UI by copying PUBLIC IP of ec2 instance with 8080:



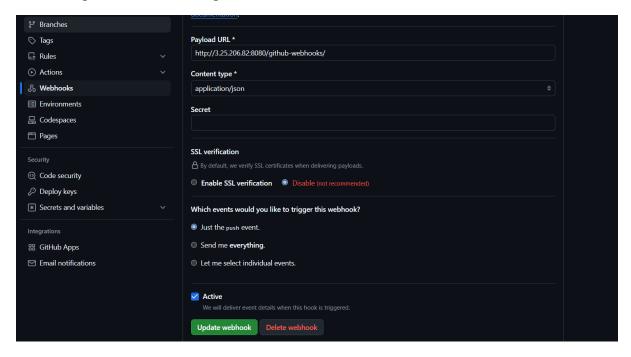
Sign in to Jenkins

Password	
Keep me signed in	
Sign in	

→ Created a job in Jenkins



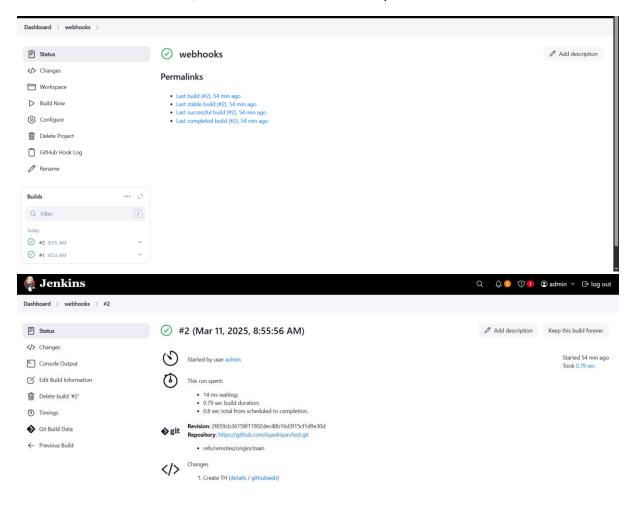
→ Added github webhooks in github



→push a file to github repo:



→Go to Jenkins Dashboard, the build starts automatically:



19) basic understanding of .git file:

```
naren@narendar MINGW64 /d/git_store (master)
$ rm -rf .git/
naren@narendar MINGW64 /d/git_store
$ git init
Initialized empty Git repository in D:/git_store/.git/
```

20) Check all the logs of git:

```
naren@narendar MINGW64 /d/git_store (master)

$ git log
commit 4cb969eb171b4c6d3802d23a557625dc7f915cd6 (HEAD -> master)
Author: narendar <narendar27@gmail.com>
Date: Tue Feb 18 13:13:13 2025 +0530

add in

commit 609602fa7e2f6e5baffc5b191d2e62f14aa5a0e5
Author: narendar <narendar27@gmail.com>
Date: Tue Feb 18 12:39:47 2025 +0530

added hello in master
```

21) Rename the commit message:

```
ndar MINGW64 /d/git_store (master)
$ git log
commit 6608969270255673f5ee2b159124c1d9690291ee (HEAD -> master)
Author: narendar <narendar27@gmail.com>
Date: Tue Feb 18 16:00:31 2025 +0530
     added a file
naren@narendar MINGW64 /d/git_store (master)
$ git --amend
unknown option: --amend
<command> [<args>]
naren@narendar MINGW64 /d/git_store (master)
$ git commit --amend
[master 38af69e] added a file edited by using git comment --amend Date: Tue Feb 18 16:00:31 2025 +0530
 3 files changed, 0 insertions(+), 0 deletions(-) create mode 100644 f1 create mode 100644 hello create mode 100644 hotfix
naren@narendar MINGW64 /d/git_store (master)
$ git log
commit 38af69e652de2c1adb0646a67f267a088793148d (HEAD -> master)
Author: narendar <narendar27@gmail.com>
Date: Tue Feb 18 16:00:31 2025 +0530
     added a file edited by using git comment --amend
```

22) Merge multiple commits into single commit:

```
naren@narendar MINGW64 /d/git_store (release)
$ ls
hello release

naren@narendar MINGW64 /d/git_store (release)
$ git checkout hotfix
Switched to branch 'hotfix'

naren@narendar MINGW64 /d/git_store (hotfix)
$ ls
hello

naren@narendar MINGW64 /d/git_store (hotfix)
$ git merge release
Updating 609602f..c969d63
Fast-forward
release | 0
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 release

naren@narendar MINGW64 /d/git_store (hotfix)
$ ls
hello release
```