

#DAY 3

Git & GitHub – Basics, Branching, Merging, PRs

Basic Git Commands:

- `git init` # Initialize a repo
- `git add <file>` # Stage files
- `git commit -m "msg"` # Commit staged files
- `git status` # Show current state
- `git log` # View commit history
- `git diff` # Show unstaged changes

```
Aug 2 14:53
Nidhisha@Ubuntu: ~
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/Nidhisha/.git/
Nidhisha@Ubuntu:~$ git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        .bash_history
        .bash_logout
        .bashrc
        .cache/
        .config/
        .gitconfig
        .gnupg/
        .local/
        .profile
        .ssh/
        .sudo_as_admin_successful
        .vboxclient-clipboard-tty2-control.pid
        .vboxclient-clipboard-tty2-service.pid
        .vboxclient-draganddrop-tty2-control.pid
        .vboxclient-hostversion-tty2-control.pid
        .vboxclient-seanless-tty2-control.pid
        .vboxclient-vmsvga-session-tty2-control.pid
        .vboxclient-vmsvga-session-tty2-service.pid
        backup.sh
        check_availability.sh
        check_file.sh
        check_website.sh.save
        clean_old_logs.sh
        create_user.sh
```

```
Aug 2 14:53
Nidhisha@Ubuntu: ~
Nidhisha@Ubuntu:~$ git add .
Nidhisha@Ubuntu:~$ git commit -m "Initial commit"
[master (root-commit) 4637904] Initial commit
445 files changed, 2364 insertions(+)
create mode 100644 .bash_history
create mode 100644 .bash_logout
create mode 100644 .bashrc
create mode 100644 .cache/event-sound-cache.tdb.41daefde7a694e18bdb500e5ec4e47a7.x86_64-pc-linux-gnu
create mode 100644 .cache/gstreamer-1.0/registry.x86_64.bin
create mode 100644 .cache/ibus/bus/registry
create mode 100644 .cache/mesa_shader_cache_db/index
create mode 100644 .cache/mesa_shader_cache_db/marker
create mode 100644 .cache/mesa_shader_cache_db/part0/mesa_cache.db
create mode 100644 .cache/mesa_shader_cache_db/part0/mesa_cache.idx
create mode 100644 .cache/mesa_shader_cache_db/part1/mesa_cache.db
create mode 100644 .cache/mesa_shader_cache_db/part1/mesa_cache.idx
create mode 100644 .cache/mesa_shader_cache_db/part10/mesa_cache.db
create mode 100644 .cache/mesa_shader_cache_db/part10/mesa_cache.idx
create mode 100644 .cache/mesa_shader_cache_db/part11/mesa_cache.db
create mode 100644 .cache/mesa_shader_cache_db/part11/mesa_cache.idx
create mode 100644 .cache/mesa_shader_cache_db/part12/mesa_cache.db
create mode 100644 .cache/mesa_shader_cache_db/part12/mesa_cache.idx
create mode 100644 .cache/mesa_shader_cache_db/part13/mesa_cache.db
create mode 100644 .cache/mesa_shader_cache_db/part13/mesa_cache.idx
create mode 100644 .cache/mesa_shader_cache_db/part14/mesa_cache.db
create mode 100644 .cache/mesa_shader_cache_db/part14/mesa_cache.idx
create mode 100644 .cache/mesa_shader_cache_db/part15/mesa_cache.db
create mode 100644 .cache/mesa_shader_cache_db/part15/mesa_cache.idx
create mode 100644 .cache/mesa_shader_cache_db/part16/mesa_cache.db
create mode 100644 .cache/mesa_shader_cache_db/part16/mesa_cache.idx
create mode 100644 .cache/mesa_shader_cache_db/part17/mesa_cache.db
create mode 100644 .cache/mesa_shader_cache_db/part17/mesa_cache.idx
create mode 100644 .cache/mesa_shader_cache_db/part18/mesa_cache.db
create mode 100644 .cache/mesa_shader_cache_db/part18/mesa_cache.idx
create mode 100644 .cache/mesa_shader_cache_db/part19/mesa_cache.db
create mode 100644 .cache/mesa_shader_cache_db/part19/mesa_cache.idx
create mode 100644 .cache/mesa_shader_cache_db/part2/mesa_cache.db
create mode 100644 .cache/mesa_shader_cache_db/part2/mesa_cache.idx
create mode 100644 .cache/mesa_shader_cache_db/part20/mesa_cache.db
```

Branching and Merging:

git branch <branch> # Create a new branch

git checkout <branch> # Switch to the branch

git merge <branch> # Merge branch into current branch

Challenge 2: Create a new branch (feature-branch), switch, and commit changes.

```
Nidhisha@Ubuntu: ~  
Nidhisha@Ubuntu:~$ git checkout -b feature-branch  
Switched to a new branch 'feature-branch'  
Nidhisha@Ubuntu:~$ git branch  
* feature-branch  
master  
Nidhisha@Ubuntu:~$ echo "New feature addes!" > feature.txt  
Nidhisha@Ubuntu:~$ git commit -m "Added feature.txt with new feature"  
On branch feature-branch  
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)  
        modified:   .bash_history  
        modified:   .cache/mesa_shader_cache_db/part0/mesa_cache.db  
        modified:   .cache/mesa_shader_cache_db/part0/mesa_cache.idx  
        modified:   .cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome.org%2Fo  
ntology%2Fv3%2Ftracker%23Audio.db-shm  
        modified:   .cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome.org%2Fo  
ntology%2Fv3%2Ftracker%23Audio.db-wal  
        modified:   .cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome.org%2Fo  
ntology%2Fv3%2Ftracker%23Documents.db-shm  
        modified:   .cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome.org%2Fo  
ntology%2Fv3%2Ftracker%23Documents.db-wal  
        modified:   .cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome.org%2Fo  
ntology%2Fv3%2Ftracker%23FileSystem.db-shm
```

```
Aug 3 16:22  
Nidhisha@Ubuntu: ~  
Nidhisha@Ubuntu:~$ git add feature.txt  
Nidhisha@Ubuntu:~$ git add .  
Command 'dit' not found, but there are 22 similar ones.  
Nidhisha@Ubuntu:~$ git add .  
Nidhisha@Ubuntu:~$ git commit -m "Add features.txt file"  
[feature-branch 59ace2b] Add features.txt file  
41 files changed, 43 insertions(+), 13 deletions(-)  
create mode 100644 .cache/tracker3/files/errors/23d3fcb56fb792578a367d3abdf675fd  
create mode 100644 .cache/tracker3/files/errors/5a47275802d7221910174ca2becb6d72  
create mode 100644 .cache/tracker3/files/errors/7874f5c560153af89b4f7a984e26c5a0  
create mode 100644 .cache/tracker3/files/errors/8ff52c47a28dbc89fe2f3c8a9a27b6cd  
create mode 100644 .cache/tracker3/files/errors/cff3bdeb3a4f596edce1cb0770e19141  
create mode 100644 .cache/tracker3/files/errors/ead6130b2fb6b5d2d2ef678700bdc089  
create mode 100644 .cache/tracker3/files/errors/f5f5923099f6373069af0bfca3508e4a  
create mode 100644 .lessht  
rename .local/share/gvfs-metadata/[root-d7ca92a4.log => root-32eb782a.log] (99%)  
create mode 100644 feature.txt  
Nidhisha@Ubuntu:~$ git status  
On branch feature-branch  
nothing to commit, working tree clean  
Nidhisha@Ubuntu:~$ git push origin feature-branch  
fatal: 'origin' 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.  
Nidhisha@Ubuntu:~$ git push origin feature-branch  
fatal: 'origin' 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.  
Nidhisha@Ubuntu:~$ git remote add origin https://github.com/Nidhisha-A-Dhas/DevOps-demo  
Nidhisha@Ubuntu:~$ git push -u origin feature-branch  
Username for 'https://github.com': Nidhisha-A-Dhas  
Password for 'https://github.com':  
remote: Invalid username or token. Password authentication is not supported for Git operations.  
fatal: Authentication failed for 'https://github.com/Nidhisha-A-Dhas/DevOps-demo/'  
Nidhisha@Ubuntu:~$
```