GIT is a distributed version control system

GIT is a tree history storage system

GIT is content tracking mgmt system

SETUP local repository

Set the name and email for Git to use when you commit

Git config –global user.name “royalchandana1997”

Git config –global user.email [royalchandana19976@gmail.com](mailto:royalchandana19976@gmail.com)

Create a directory

Mkdir dirname

Initialize dir with

Git init 🡪 to initiate a new git repository, it sets up all necessary files and directories that git needs to track changes in your project.

Create readme.md file

Git status – tells you current status of your repository

Git add . (. Means current working directory)

Working directory – this is where you make changes to your files like modifications, additions, deletions.

Staging area(index) – temporary area where you make changes before committing them,

You add changes to the staging area using git add

Repository – this is where your committed changes are stored, once changes are staged, you commit them to the repository.

Git commit -m “your commit message” 🡪 -m is a flag specifiesa commit msg directly from the cmd line

Git push origin main 🡪 cmd pushes committed changes to the remote repository on the main branch

SETUP a remote repository

Git remote add origin <remote-repo-url> 🡪 it will link remote repo to our local repo

Git branch -m

Git push -u origin main 🡪 -u flag set the upstream branch for the current branch, it tells git where to push the changes.

🡪this will push your changes to the main branch of the origin remote repository and set it as default upstream branch for future pushes

🡪1st make change in the file

Vim saturn1.py

🡪Git add saturn1.py 🡪 staging

🡪git commit -m “saturns moons”

🡪git push origin main

You r linking remote repo to local repo and then make changes and commit and push into main branch and you will see the results in your ADO board/github

BRANCHES

Branch is essentially a separate line of development, slows us to work on diff features, bug fixes or experiments in isolation from the main codebase.

Main Branch – default branch where the stable code resides, in Git, its called as main/master

Feature branch – these are branches created to work on new features, once the feature is complete, the branch can be merged back into the main branch.

Bug Fix branches created to fix bugs

Release Branches used to prep for a new release, allow for final testing before merging into branch

Hotfix branches used for urgent fixes applied directly to main branch