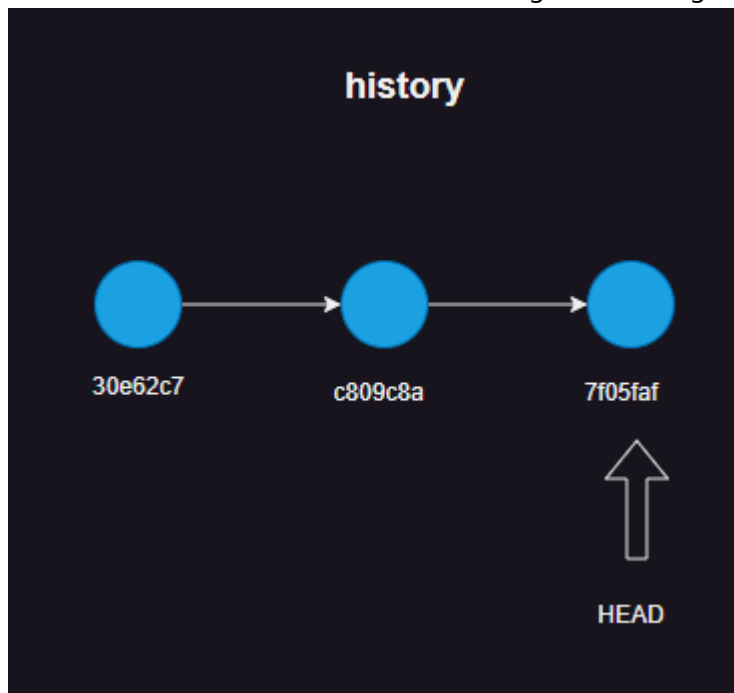


## Git Contd

- Look into classroom video for understanding constructing history



- Use checkout to move head around commits
- As of now master will have latest commit id

Lets make changes in all folders with in working directory

- Lets add some untracked files
- Lets modify all the tracked files

```

Windows PowerShell
PS C:\temp\repos\understandinghistory> git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
    modified:   Readme.md
    modified:   src/main.py
    modified:   test/main.py

Untracked files:
  (use "git add <file>..." to include in what will be committed)
  Dockerfile
  src/app.py
  test/app.py

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\temp\repos\understandinghistory>

```

- NOW i want to add all tracked files into staging area and commit

```

PS C:\temp\repos\understandinghistory> git add -u
PS C:\temp\repos\understandinghistory> git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   README.md
        modified:   src/main.py
        modified:   test/main.py

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        Dockerfile
        src/app.py
        test/app.py

PS C:\temp\repos\understandinghistory> git commit -m "4. added tracked files"
[master f93cee2] 4. added tracked files
 3 files changed, 12 insertions(+), 2 deletions(-)
PS C:\temp\repos\understandinghistory> git log --oneline
f93cee2 (HEAD -> master) 4. added tracked files
7f05faf 3. Added tests
c809c8a 2. Added code
30e62c7 1. Added files
PS C:\temp\repos\understandinghistory>

```

- I want to add only the changes in src\
  - cd into src and use `git add .`
- also view recording for some other cases
- history



- Lets create a docs folder. This will not be shown as change as git considers only files not empty directories.

- To move the change from staging area to working tree `git restore --staged <path>`

```
Windows PowerShell
PS C:\temp\repos\understandinghistory> git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   docs/Design.md
        modified:   src/app.py

PS C:\temp\repos\understandinghistory> git restore --staged .\docs\Design.md
PS C:\temp\repos\understandinghistory> git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   src/app.py

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   docs/Design.md

PS C:\temp\repos\understandinghistory>
```

## Ignoring files in Git

- Every technology like java, .net, terraform, k8s etc has some files which are not required to be present in version control system as they are generated on developers workstation when executing.
- We need a way to tell git ignore these files or folders

```
(.venv) PS C:\temp\repos\samplepython> git init
Initialized empty Git repository in C:/temp/repos/samplepython/.git/
(.venv) PS C:\temp\repos\samplepython> git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        .venv/
        __pycache__/
        main.py

nothing added to commit but untracked files present (use "git add" to track)
(.venv) PS C:\temp\repos\samplepython>
```

- In the above case we need to ignore
  - `.venv` folder
  - `__pycache__` folder
- Create a file called as `.gitignore` in the root folder of working tree with following content

```
.venv/*
__pycache__/*
```

- Now add and commit the `.gitignore` file

- look at status

```
(.venv) PS C:\temp\repos\samplepython> git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
       main.py

nothing added to commit but untracked files present (use "git add" to track)
(.venv) PS C:\temp\repos\samplepython>
```

## Git Terms

- Untracked File: A new file added to the working directory (no prior history in git)
- branch
- master