

saved state from earlier version

Also Grit uses 3 Stage architecture.

i) Working directly

→ It is the directly in which you save your terminal ~~command~~ & saves file like

first.css
design.html

code.cpp

etc.

related to your Project

ii) Staging area :-

Let assume you are working on any project in which you have made files like

index. HTML
design. CSS

Source. CPP

now, this state has no error and it is working state. then you want to save this state for future use, for this commit command.

lets you have saved this state as CI-working V1

Later ~~you~~ you have made some development in this project & changes ~~to~~ index. HTML & design. CSS ~~which~~ & Source. CPP but there is some error in ~~design~~ Source. CPP.

So, you want to save index.
HTML & design . CSS from
newer version but Source . Cpp
from older working version.
Then ~~can~~ how can you do
~~this~~ this.

This can be done by Staging
area.

Staging area is set of progs-
-ams which you want
to save for next commit
from newer version.

like here you want to save
index . HTML & design . CSS
from newer version but
not Source . Cpp.

So, you will keep index . HTML
& design . CSS in Staging
area.

iii) git directory (repository) :-

It is a hidden folder/directory in which git saves his data like commits made by us etc.

Also all version of files are also saved there.

We don't save any thing directly in git repository as it is hidden also it may cause error as it is not directly used by us.

Also if you want to make ~~any directory~~ git repository in any directory (here project as we have allotted separate space/folder/directory for this).

Go to that directory open

git bash there or you can
cd to that directory

now check status by command
git status

we check status as if there
is any repository already
formed than we don't need
to again initialize git
repository.

if there is no git repository
available type command

git init

to initialize git repository
in that directory.

also note that git status
Command is very useful it

tells us about files, if they are untracked / tracked / added or not ~~any~~ any commits are made. or not etc.

You can save file which you ~~required~~ required in this project like .cpp, .text files in the directly in which you have made git repository (here ~~project~~ project directory).

If you have saved some C++ files or text files directly then checked status then it will show those files as untracked file as you have not added them in staging area.

You can use git add command to add files in staging

Area .

If You type command

```
git add -a
```

it will add all files to the Staging area.

Let you have 3 files

first.txt

last.txt

code.cpp

If you want to add only code.cpp file then write

```
git add code.cpp
```

Date _____
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If you had added some files in staging area then git status not said them untracked file. now they are staged file.

now, if you want to commit those staging file you will type

`git commit -m "initial commit"`

now here -m command used to give message here we have given message that it is initial commit made by us.

If you only type

`git commit` then also those files will be committed but an editor will open which

for now, we will avoid
in beginning.

Now, if you check status
it will say every thing
is clean all files you
have made / edited have
been committed.

If you want to see your
commit history / log

then use command

`git log`

It will show all commits
made by user with exact
time & date.

now if you edited/modified
files like you have edited

first.txt
code.cpp

now, in status it will show
them as ~~untracked~~ modified
files.

now, you can add them in
staging area or can edit
more to enhance them.
like you want to add
first.txt

```
git add first.txt
```

now you can make commit
to this file you have staged.

```
git add commit -m "text file  
committed"
```


If you want to delete a git repository use command

`rm -rf .git`

This will change the git repository to normal directory.

If you again want to initialize it ~~as~~ as git repository use again

`git init`

→ Cloning a remote repository to your PC from Git hub:

For this you have to go to that project ~~in~~ which repository you want to copy, then

In left upper corner you can see a button in green color with written Copy with HTTP on it

From here you have copy url then

go to your terminal and cd to that directory in which you want to copy this remote repository ^{and its files}, that directory must be a normal directory not a git repository or other project.

now type command in terminal

`git clone <paste that url>`

~~It will copy that repository to your local directory making~~

~~it new repository.~~

~~If you want a new name for this repository while cloning write command~~

~~git clone <url> name you want~~

It will copy that repository and files related to it in that directly.

~~Now to work in this repository~~
cd

It will form a new folder in the directory in which you have copied that repository containing repository and files related to that project.

now cd into that new folder and check status it will show every thing

is clear, all files are committed

if you changes code in these files you have to add them and ~~enhance them~~ commit them.

While working on large project we will lost ~~at~~ in which directory / folder we are working or what are the ~~the~~ files in this, for this we can use

pwd or ls command.

NOTE:- if you want to copy new repository with new name write code while cloning

git clone <url> <name you want>