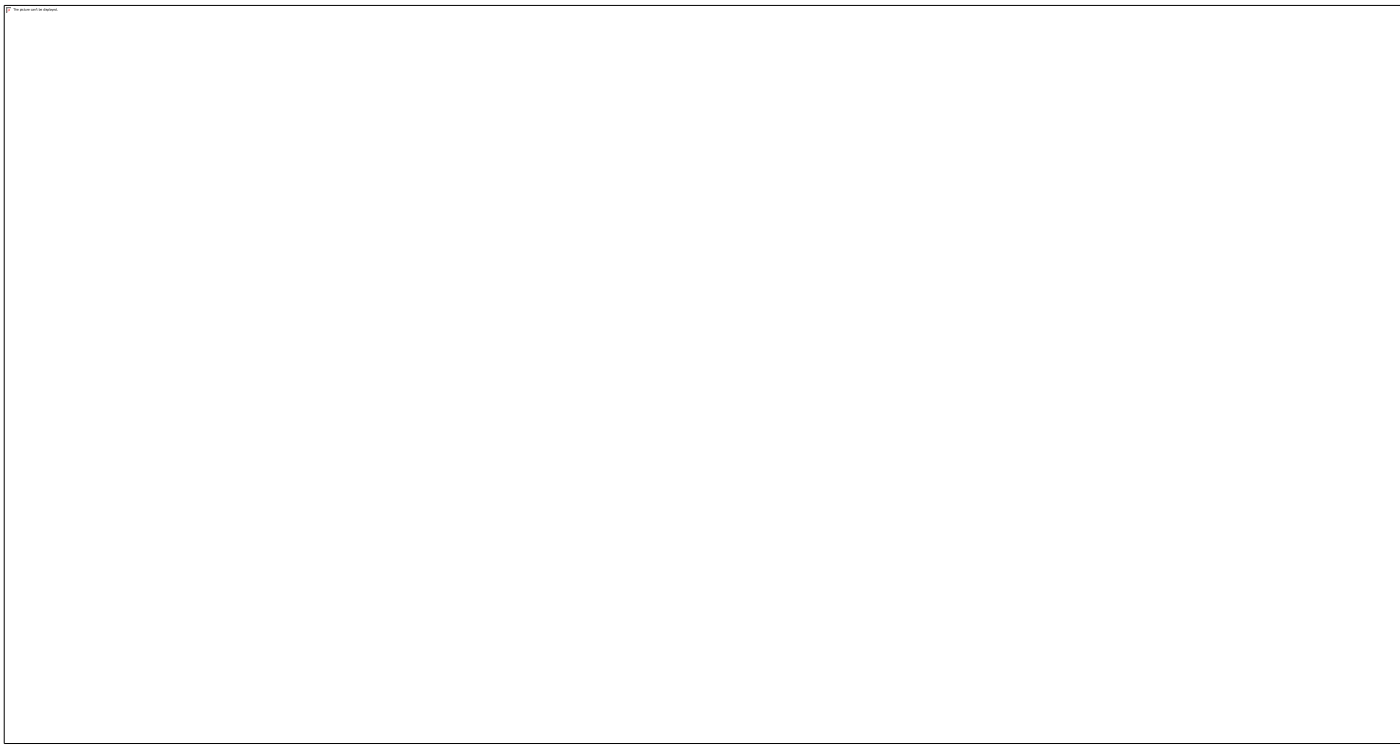
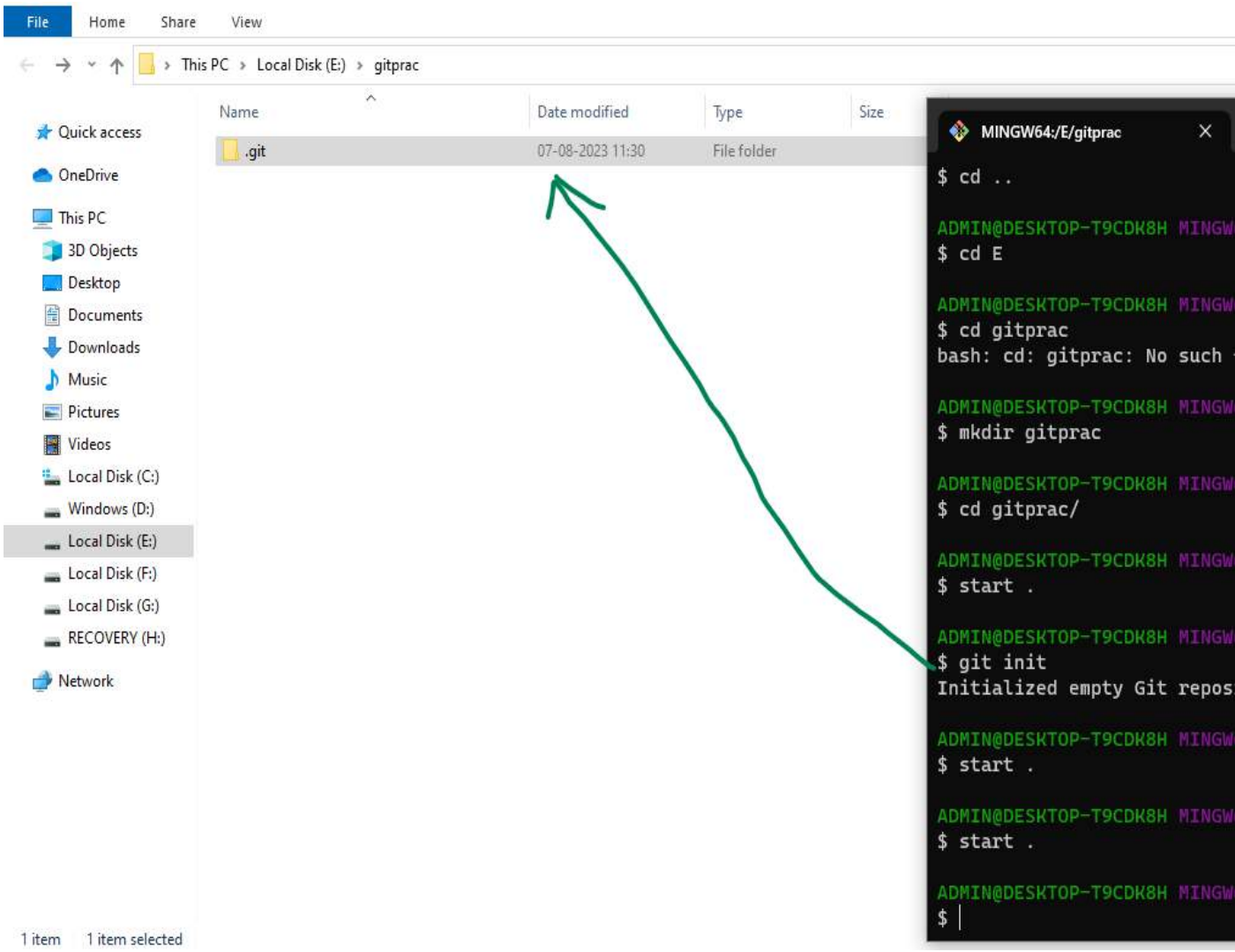
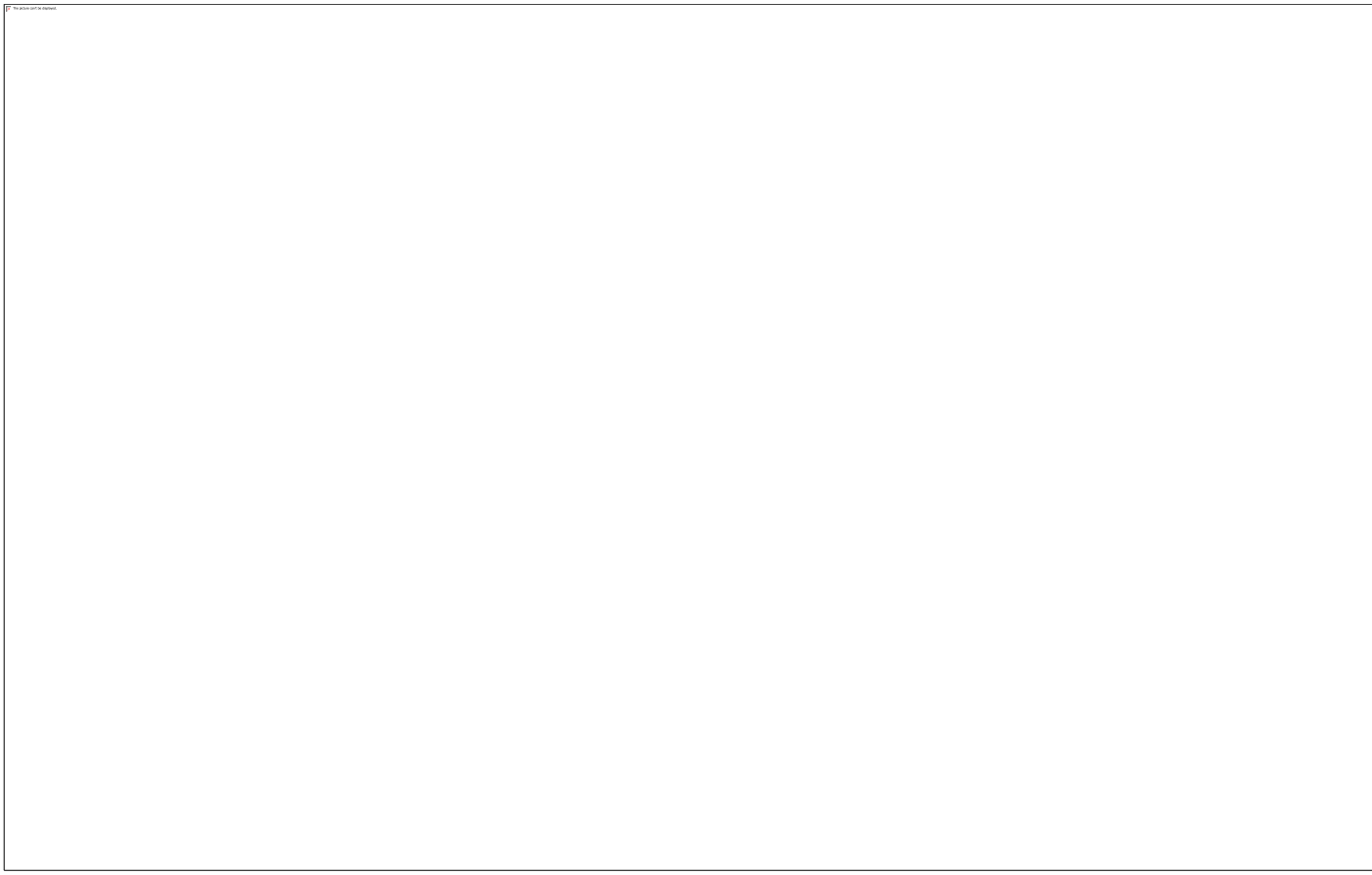
GIT practice

GIT workflow:



❱ To create a local repo using a initalize command init in git:


File
Home
Share
View
This PC
Local Disk (E:)
gitprac
Quick access
OneDrive
This PC
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
Windows (D:)
Local Disk (E:)
Local Disk (F:)
Local Disk (G:)
RECOVERY (H:)
Network
Name
Date modified
Type
Size
.git
07-08-2023 11:30
File folder
1 item
1 item selected
MINGW64:/E/gitprac
$ cd ..
ADMIN@DESKTOP-T9CDK8H MINGW
$ cd E
ADMIN@DESKTOP-T9CDK8H MINGW
$ cd gitprac
bash: cd: gitprac: No such
ADMIN@DESKTOP-T9CDK8H MINGW
$ mkdir gitprac
ADMIN@DESKTOP-T9CDK8H MINGW
$ cd gitprac/
ADMIN@DESKTOP-T9CDK8H MINGW
$ start .
ADMIN@DESKTOP-T9CDK8H MINGW
$ git init
Initialized empty Git repos
ADMIN@DESKTOP-T9CDK8H MINGW
$ start .
ADMIN@DESKTOP-T9CDK8H MINGW
$ start .
ADMIN@DESKTOP-T9CDK8H MINGW
$



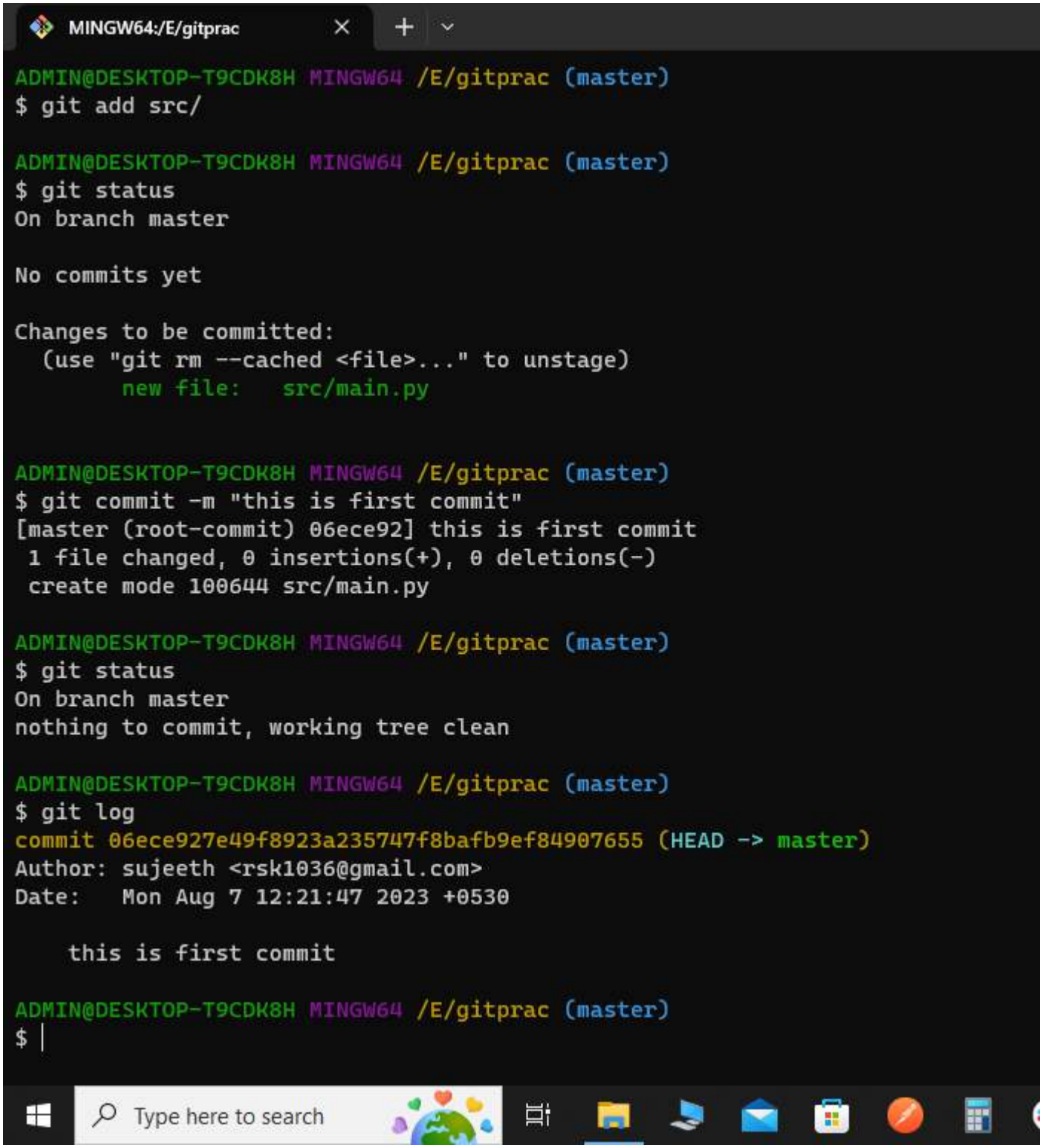
) current changes

- For the changes to be versioned we need to have the changes in local repo.
    - We work on working tree
    - move the changes to staging area
    - move the changes from staging area to local repo
    - once the changes are in local repo we have some version, who has done the change, when the change was done, changes

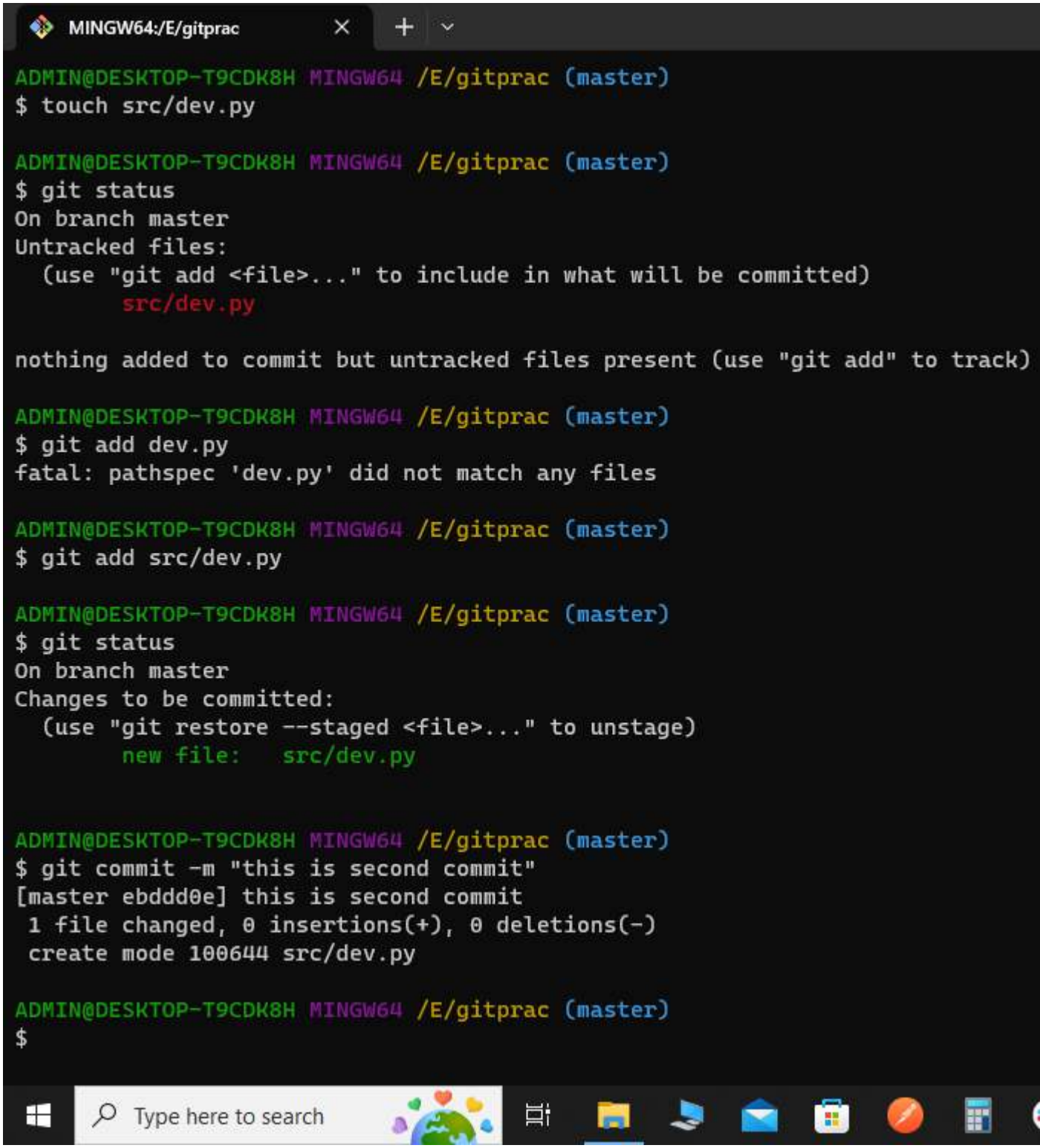
) create an src folder and create a file main.py and ask for status

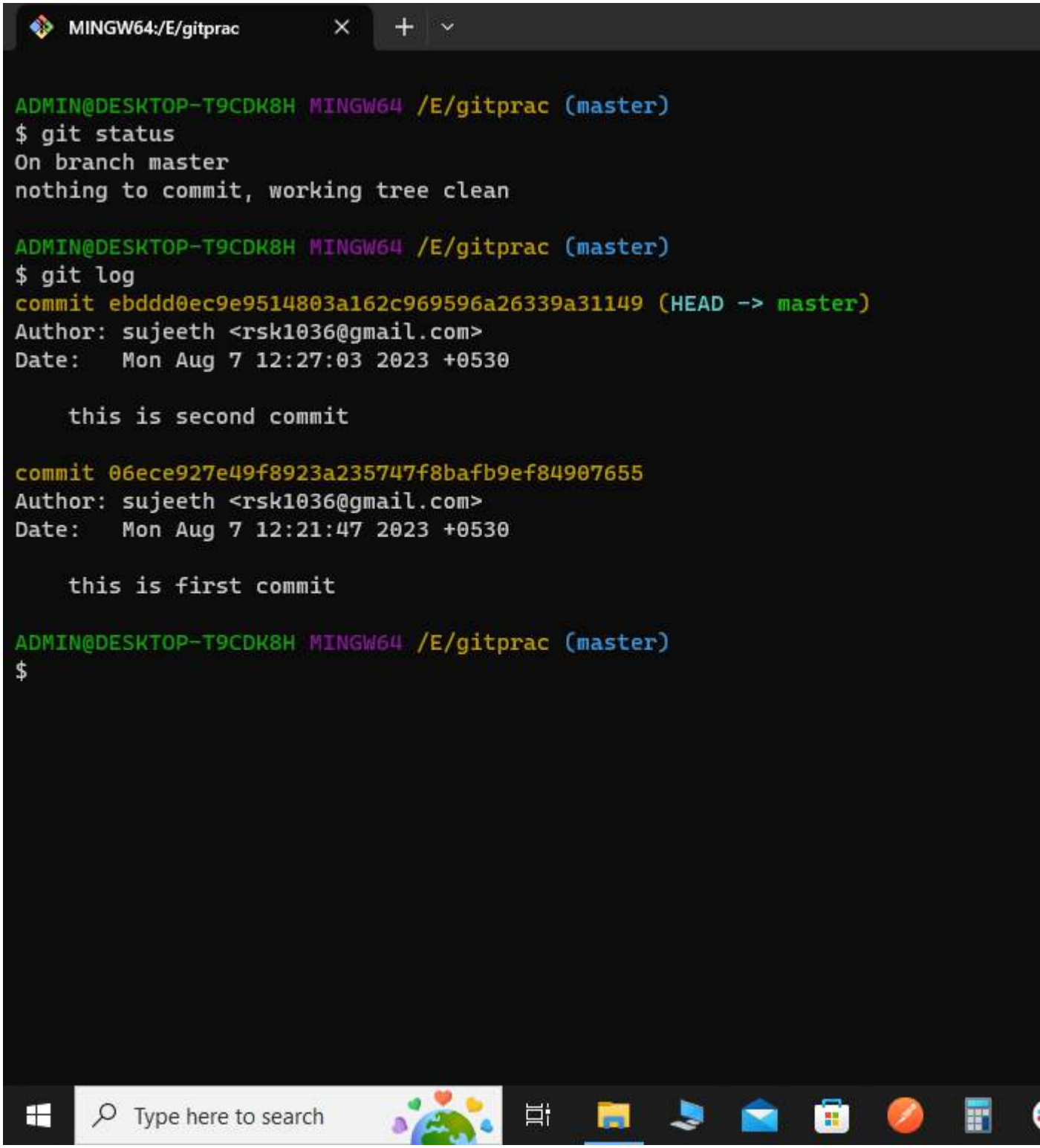
```
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ mkdir src

ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ touch src/main.py

ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ gFor the changes to be versioned we need to have the changes in local repo.
We work on working tree
move the changes to staging area
move the changes from staging area to local repo
once the changes are in local repo we have some version, who has done the cha
bash: gFor: command not found
bash: We: command not found
bash: move: command not found
bash: move: command not found
bash: once: command not found

ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git status
On branch master

No commits yet

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

nothing added to commit but untracked files present (use "git add" to track)
```

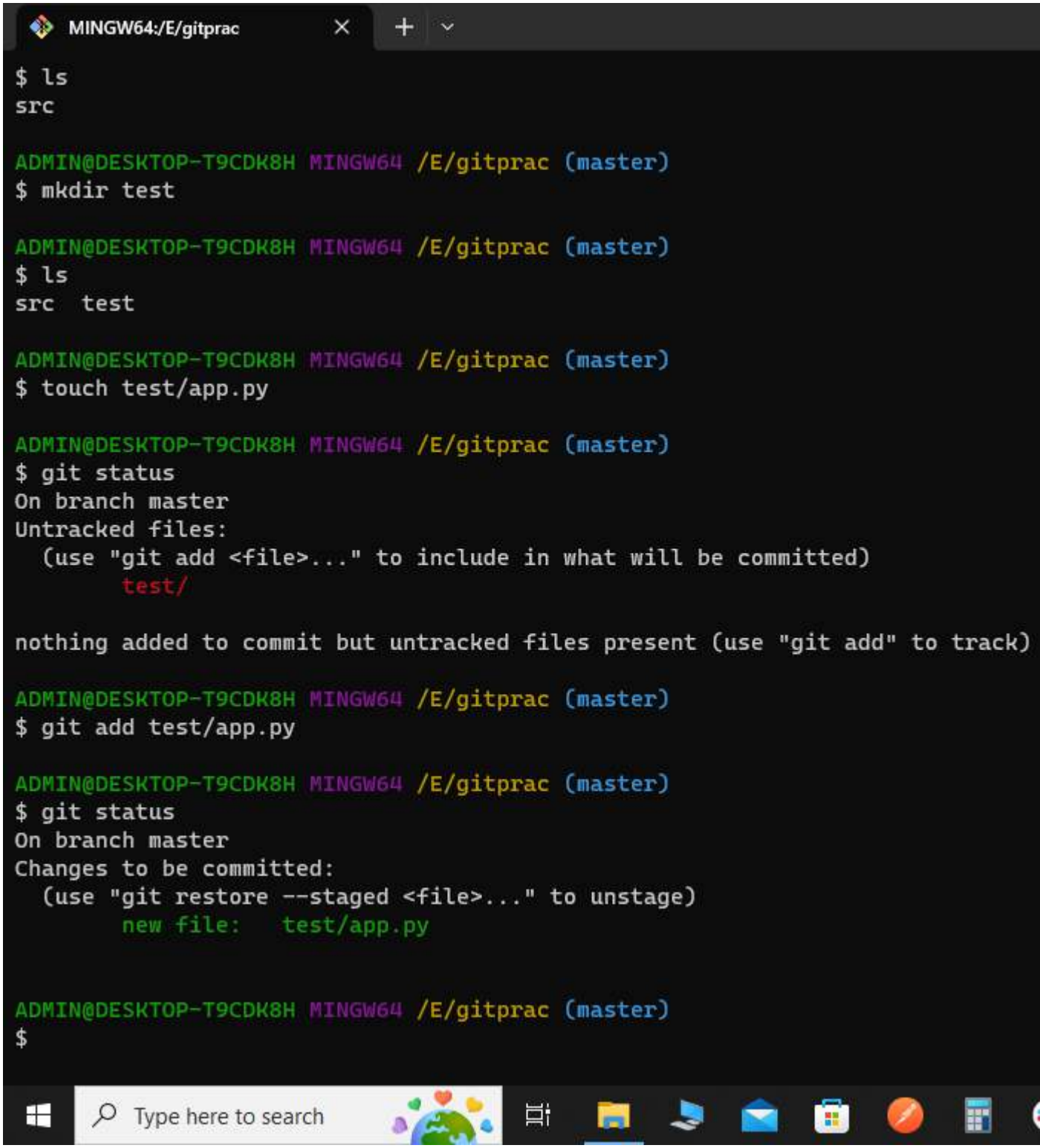
Present there is untracked files are present

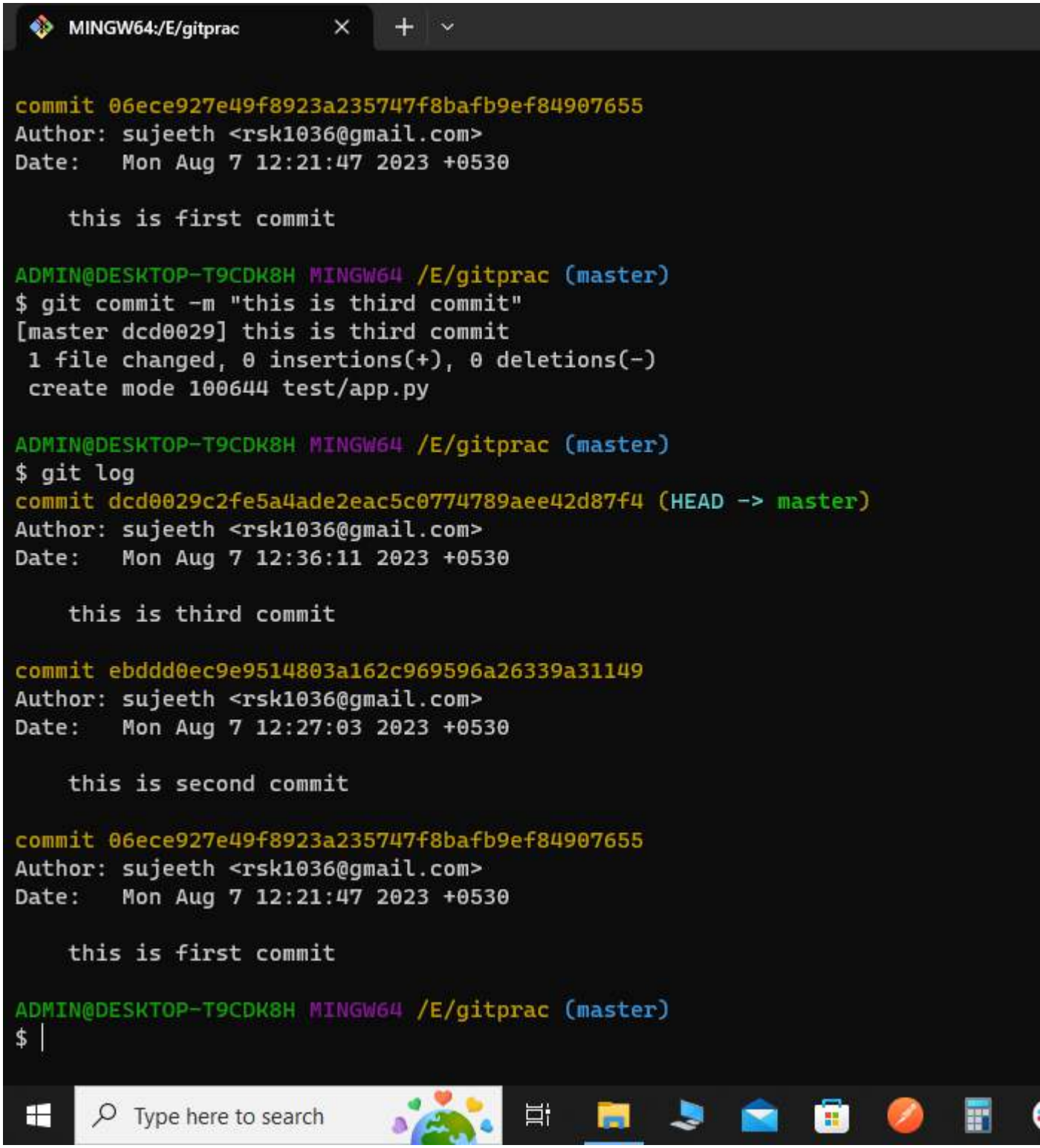


) lets add one more change

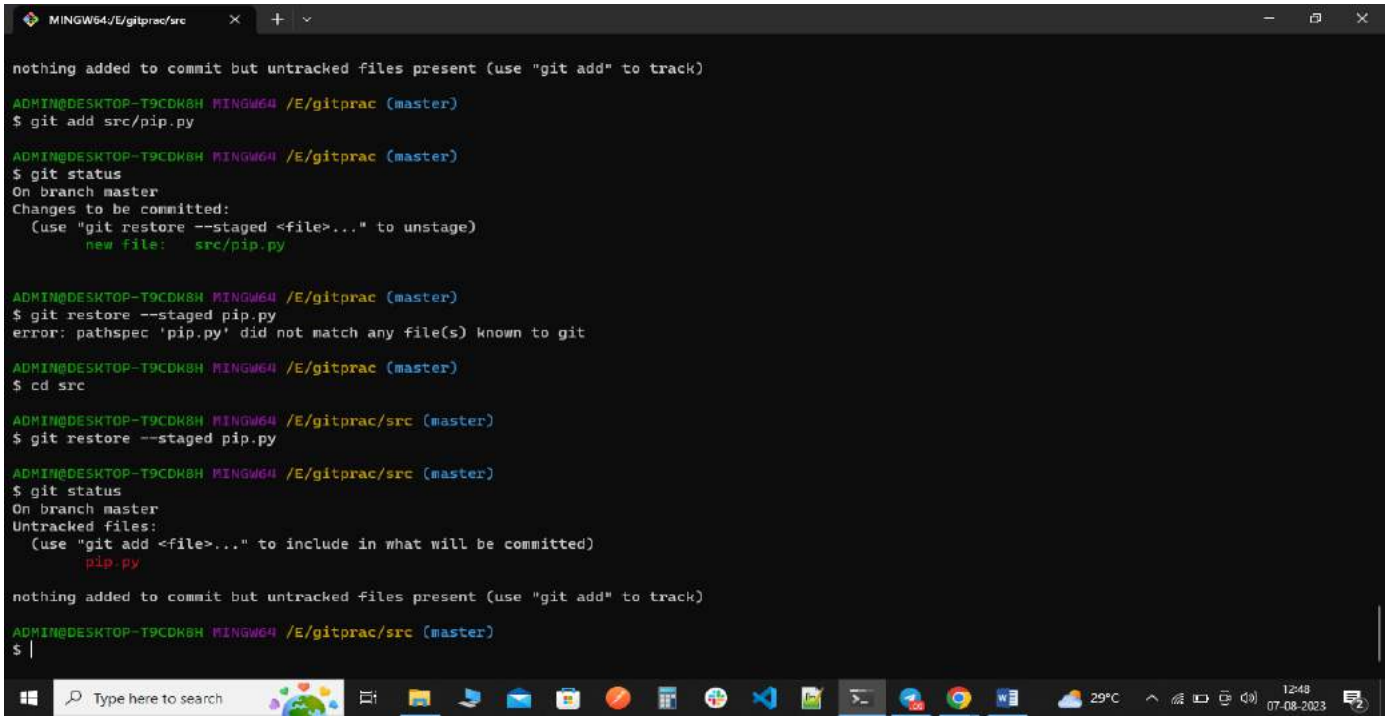

MINGW64:/E/gitprac
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ touch src/dev.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git status
On branch master
Untracked files:
(use "git add <file>..." to include in what will be committed)
src/dev.py
nothing added to commit but untracked files present (use "git add" to track)
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git add dev.py
fatal: pathspec 'dev.py' did not match any files
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git add src/dev.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git status
On branch master
Changes to be committed:
(use "git restore --staged <file>..." to unstage)
new file: src/dev.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git commit -m "this is second commit"
[master ebddd0e] this is second commit
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 src/dev.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$
Type here to search

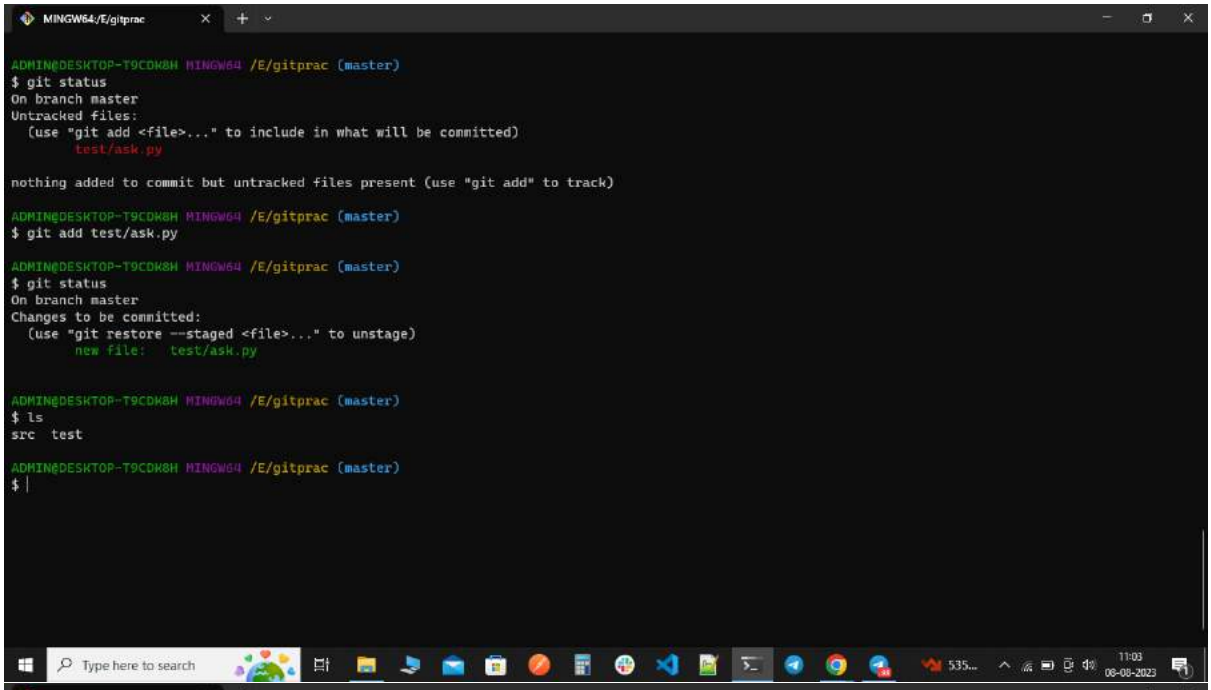

MINGW64:/E/gitprac
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git status
On branch master
nothing to commit, working tree clean
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git log
commit ebddd0ec9e9514803a162c969596a26339a31149 (HEAD -> master)
Author: sujeeth <rsk1036@gmail.com>
Date: Mon Aug 7 12:27:03 2023 +0530
this is second commit
commit 06ece927e49f8923a235747f8bafb9ef84907655
Author: sujeeth <rsk1036@gmail.com>
Date: Mon Aug 7 12:21:47 2023 +0530
this is first commit
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$
Type here to search

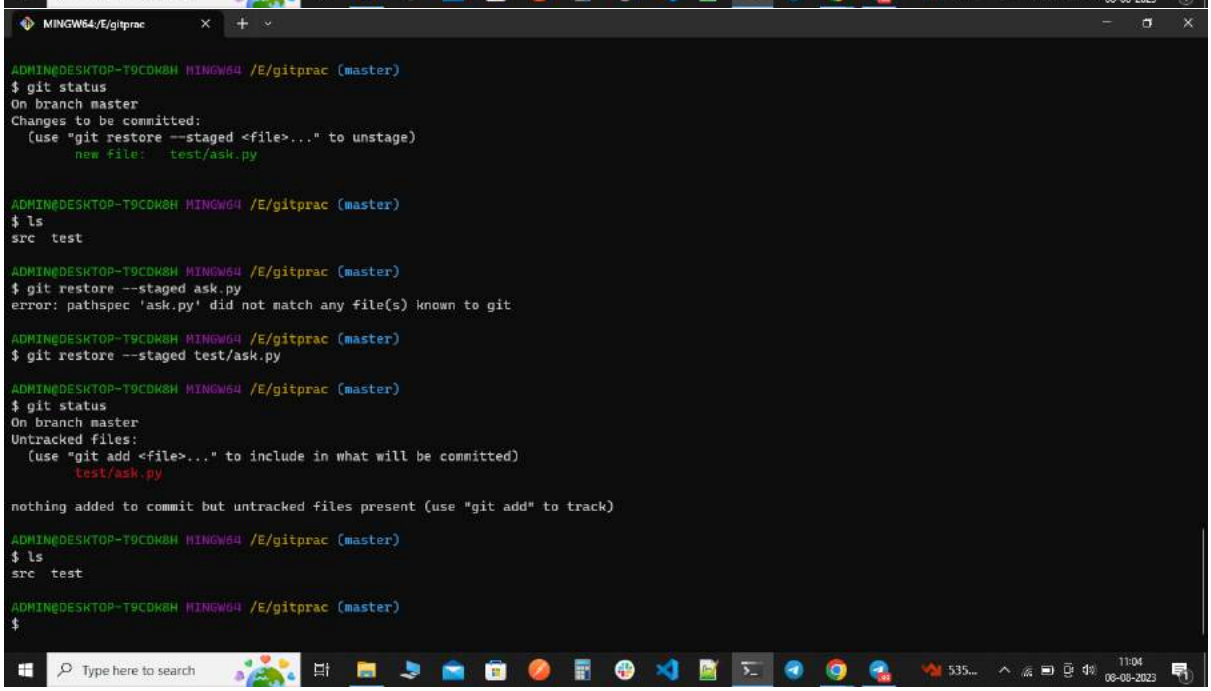

MINGW64:/E/gitprac
$ ls
src
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ mkdir test
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ ls
src test
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ touch test/app.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git status
On branch master
Untracked files:
(use "git add <file>..." to include in what will be committed)
test/
nothing added to commit but untracked files present (use "git add" to track)
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git add test/app.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git status
On branch master
Changes to be committed:
(use "git restore --staged <file>..." to unstage)
new file: test/app.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$
Type here to search

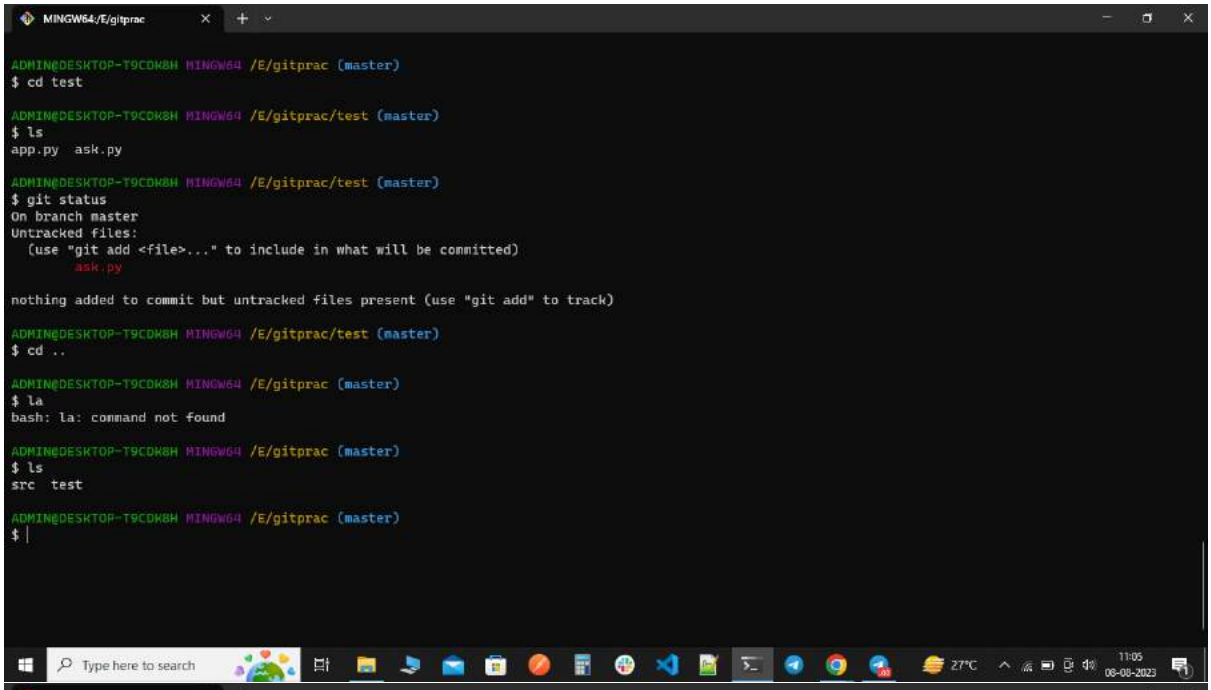

MINGW64:/E/gitprac
commit 06ece927e49f8923a235747f8bafb9ef84907655
Author: sujeeth <rsk1036@gmail.com>
Date: Mon Aug 7 12:21:47 2023 +0530
this is first commit
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git commit -m "this is third commit"
[master dcd0029] this is third commit
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 test/app.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git log
commit dcd0029c2fe5a4ade2eac5c0774789aee42d87f4 (HEAD -> master)
Author: sujeeth <rsk1036@gmail.com>
Date: Mon Aug 7 12:36:11 2023 +0530
this is third commit
commit ebddd0ec9e9514803a162c969596a26339a31149
Author: sujeeth <rsk1036@gmail.com>
Date: Mon Aug 7 12:27:03 2023 +0530
this is second commit
commit 06ece927e49f8923a235747f8bafb9ef84907655
Author: sujeeth <rsk1036@gmail.com>
Date: Mon Aug 7 12:21:47 2023 +0530
this is first commit
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$
Type here to search

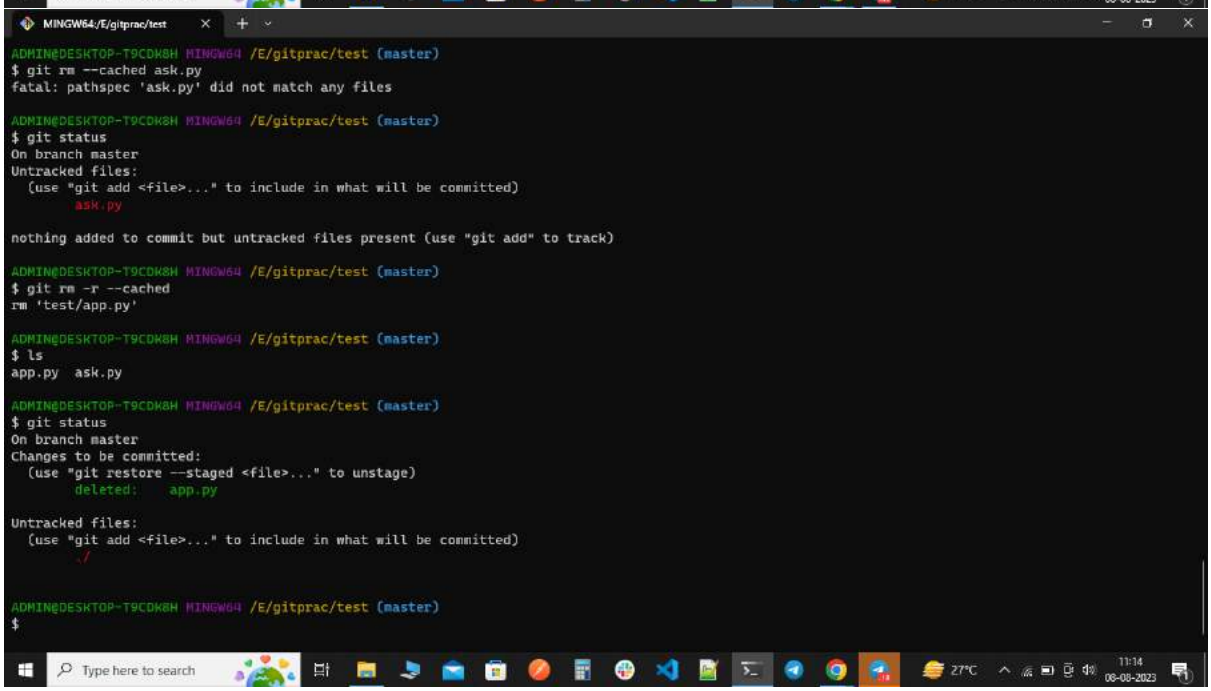
) we have removed from the staging area file(pip.py)

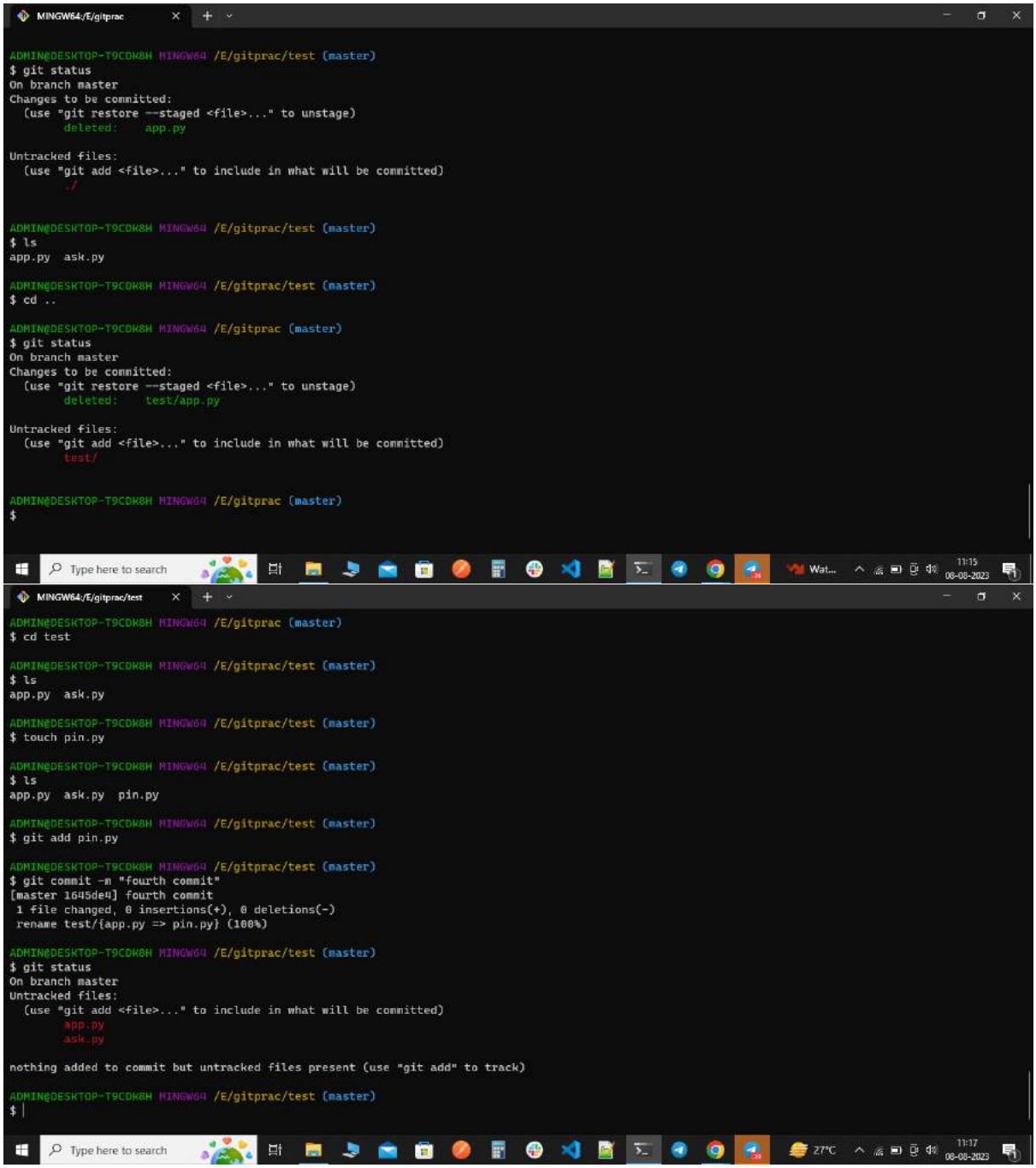



MINGW64:/E/gitprac
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git status
On branch master
Untracked files:
(use "git add <file>..." to include in what will be committed)
test/ask.py
nothing added to commit but untracked files present (use "git add" to track)
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git add test/ask.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git status
On branch master
Changes to be committed:
(use "git restore --staged <file>..." to unstage)
new file: test/ask.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ ls
src test
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$
Type here to search
11:03
08-08-2023

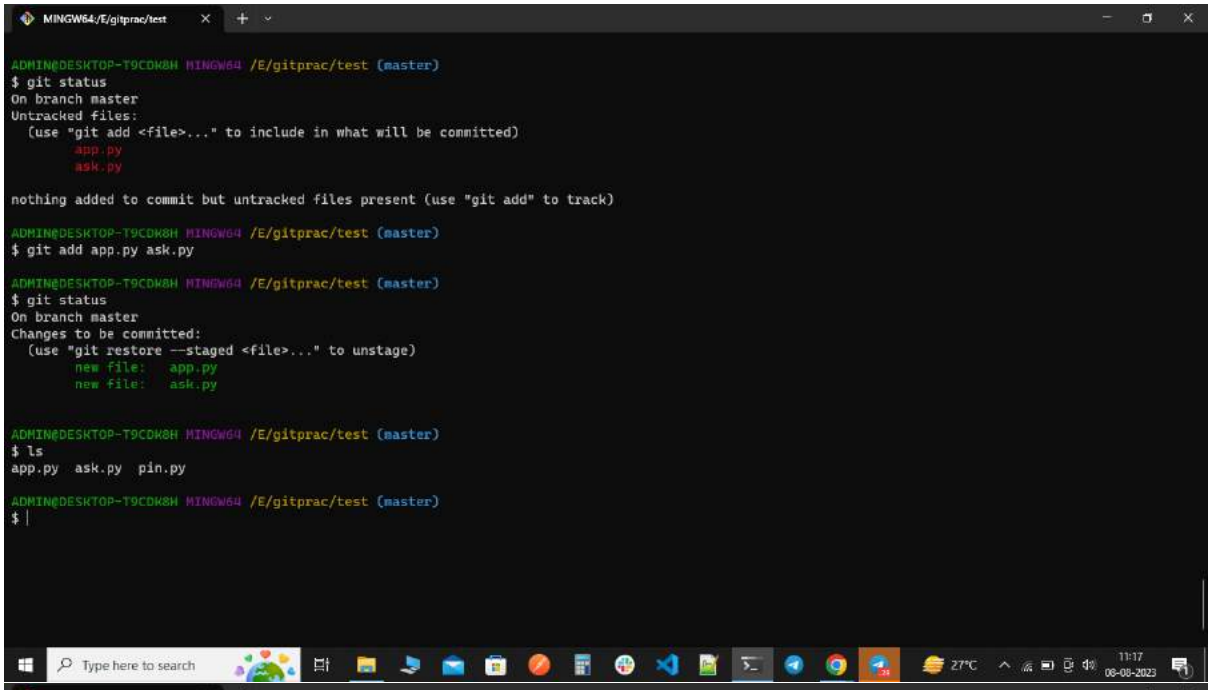

MINGW64:/E/gitprac
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git status
On branch master
Changes to be committed:
(use "git restore --staged <file>..." to unstage)
new file: test/ask.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ ls
src test
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git restore --staged ask.py
error: pathspec 'ask.py' did not match any file(s) known to git
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git restore --staged test/ask.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git status
On branch master
Untracked files:
(use "git add <file>..." to include in what will be committed)
test/ask.py
nothing added to commit but untracked files present (use "git add" to track)
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ ls
src test
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$
Type here to search
11:04
08-08-2023

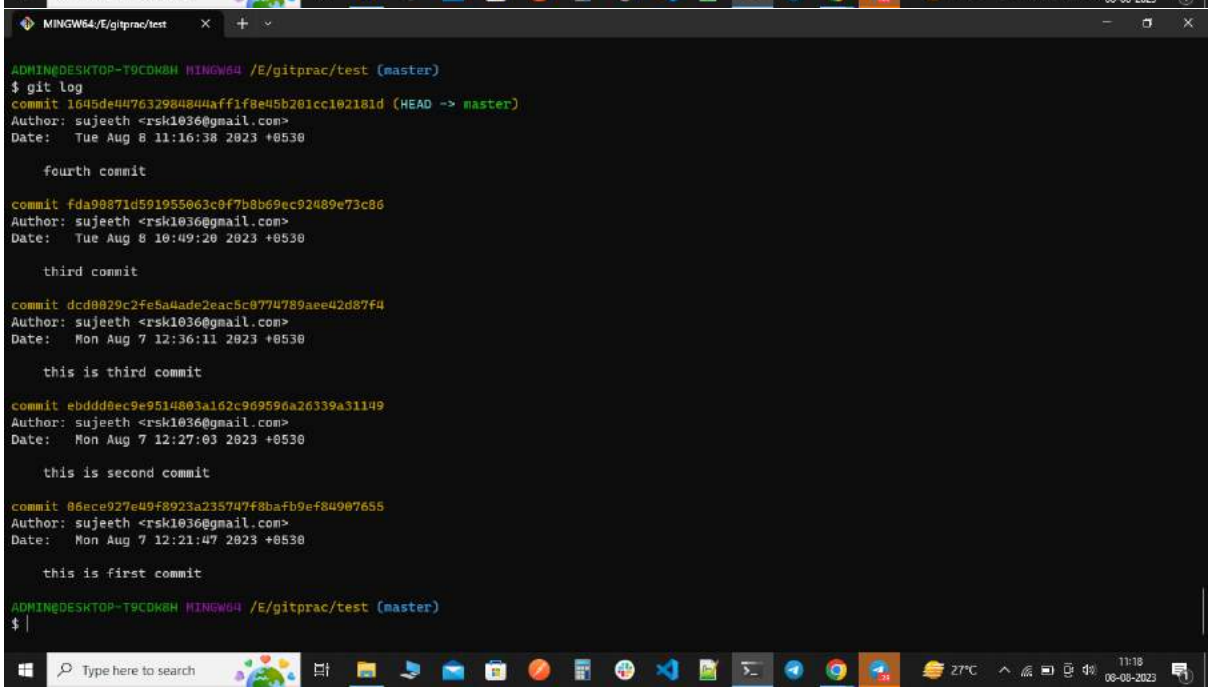

MINGW64:/E/gitprac
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ cd test
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ ls
app.py ask.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ git status
On branch master
Untracked files:
(use "git add <file>..." to include in what will be committed)
ask.py
nothing added to commit but untracked files present (use "git add" to track)
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ cd ..
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ la
bash: la: command not found
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ ls
src test
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$
Type here to search
27°C
11:05
08-08-2023

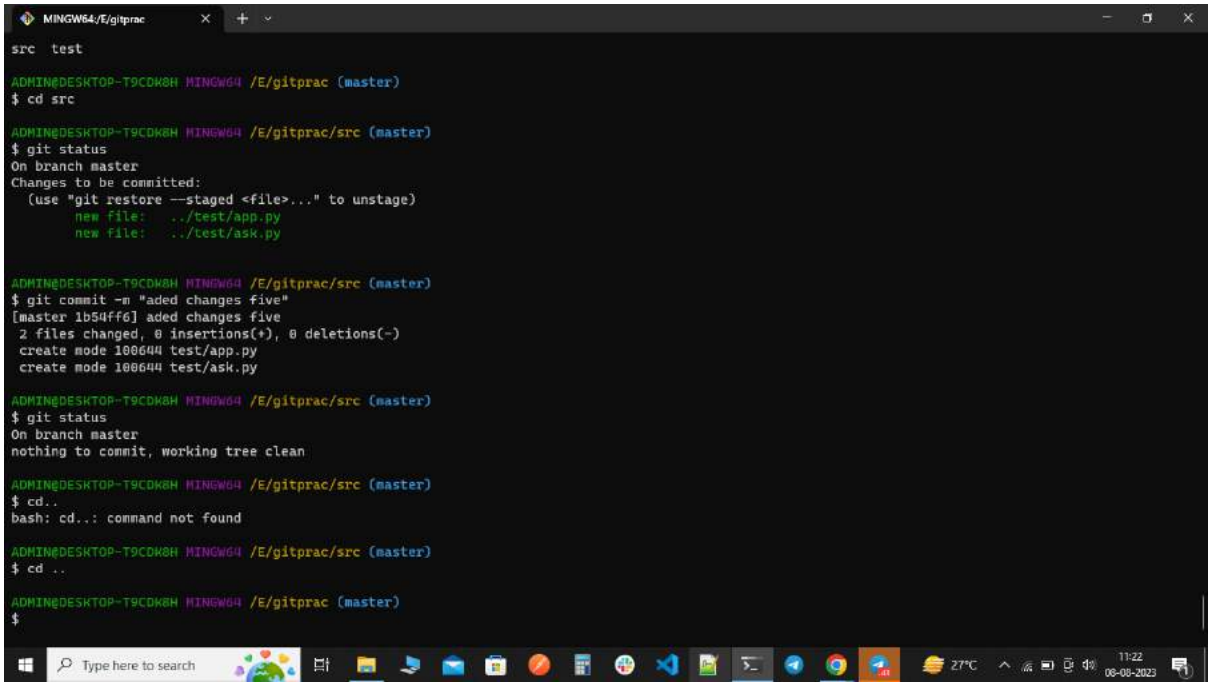

MINGW64:/E/gitprac/test
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ git rm --cached ask.py
fatal: pathspec 'ask.py' did not match any files
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ git status
On branch master
Untracked files:
(use "git add <file>..." to include in what will be committed)
ask.py
nothing added to commit but untracked files present (use "git add" to track)
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ git rm -r --cached
rm 'test/app.py'
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ ls
app.py ask.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ git status
On branch master
Changes to be committed:
(use "git restore --staged <file>..." to unstage)
deleted: app.py
Untracked files:
(use "git add <file>..." to include in what will be committed)
./
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$
Type here to search
27°C
11:14
08-08-2023


MINGW64:/E/gitprac
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ git status
On branch master
Changes to be committed:
(use "git restore --staged <file>..." to unstage)
deleted: app.py
Untracked files:
(use "git add <file>..." to include in what will be committed)
./
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ ls
app.py ask.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ cd ..
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ git status
On branch master
Changes to be committed:
(use "git restore --staged <file>..." to unstage)
deleted: test/app.py
Untracked files:
(use "git add <file>..." to include in what will be committed)
test/
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$
Type here to search
11:15
08-08-2023

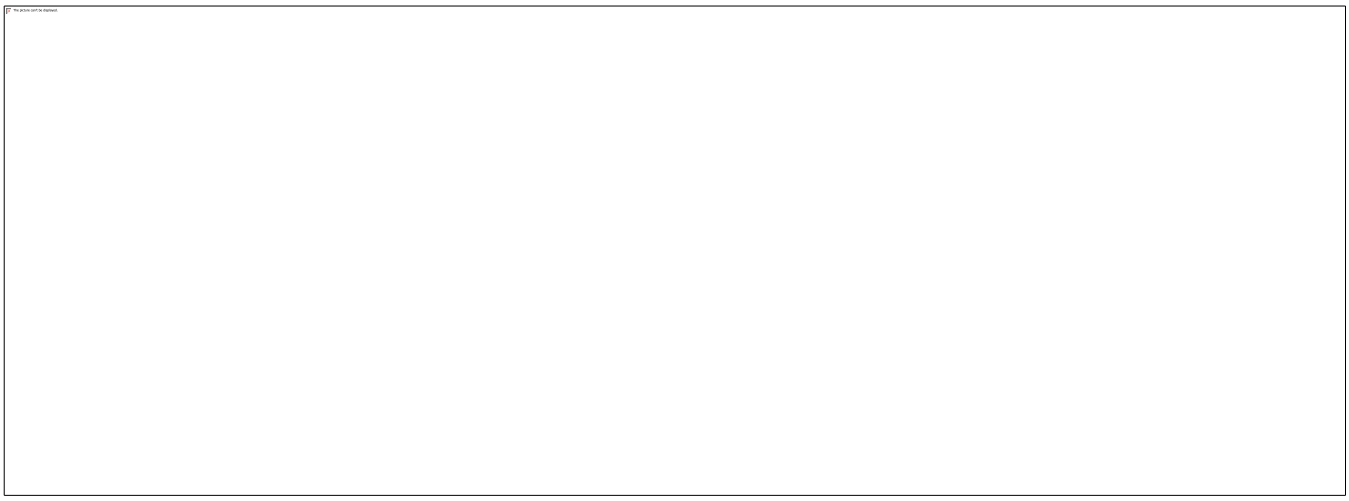
MINGW64:/E/gitprac/test
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac (master)
$ cd test
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ ls
app.py ask.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ touch pin.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ ls
app.py ask.py pin.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ git add pin.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ git commit -m "fourth commit"
[master 1645de4] fourth commit
1 file changed, 0 insertions(+), 0 deletions(-)
rename test/{app.py => pin.py} (100%)
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ git status
On branch master
Untracked files:
(use "git add <file>..." to include in what will be committed)
app.py
ask.py
nothing added to commit but untracked files present (use "git add" to track)
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$
Type here to search
27°C
11:17
08-08-2023


MINGW64:/E/gitprac/test
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ git status
On branch master
Untracked files:
(use "git add <file>..." to include in what will be committed)
app.py
ask.py
nothing added to commit but untracked files present (use "git add" to track)
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ git add app.py ask.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ git status
On branch master
Changes to be committed:
(use "git restore --staged <file>..." to unstage)
new file: app.py
new file: ask.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ ls
app.py ask.py pin.py
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$
Type here to search
27°C
11:17
08-08-2023


MINGW64:/E/gitprac/test
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$ git log
commit 1645de4476329848 44aff1f8e45b201cc102181d (HEAD -> master)
Author: sujeeth <rsk1036@gmail.com>
Date: Tue Aug 8 11:16:38 2023 +0530
fourth commit
commit fda90871d591955063c0f7b8b69ec92489e73c86
Author: sujeeth <rsk1036@gmail.com>
Date: Tue Aug 8 10:49:20 2023 +0530
third commit
commit dcd0029c2fe5a4ade2eac5c0774789aee42d87f4
Author: sujeeth <rsk1036@gmail.com>
Date: Mon Aug 7 12:36:11 2023 +0530
this is third commit
commit ebddd0ec9e9514803a162c969596a26339a31149
Author: sujeeth <rsk1036@gmail.com>
Date: Mon Aug 7 12:27:03 2023 +0530
this is second commit
commit 06ece927e49f8923a235747f8bafb9ef84907655
Author: sujeeth <rsk1036@gmail.com>
Date: Mon Aug 7 12:21:47 2023 +0530
this is first commit
ADMIN@DESKTOP-T9CDK8H MINGW64 /E/gitprac/test (master)
$
Type here to search
27°C
11:18
08-08-2023

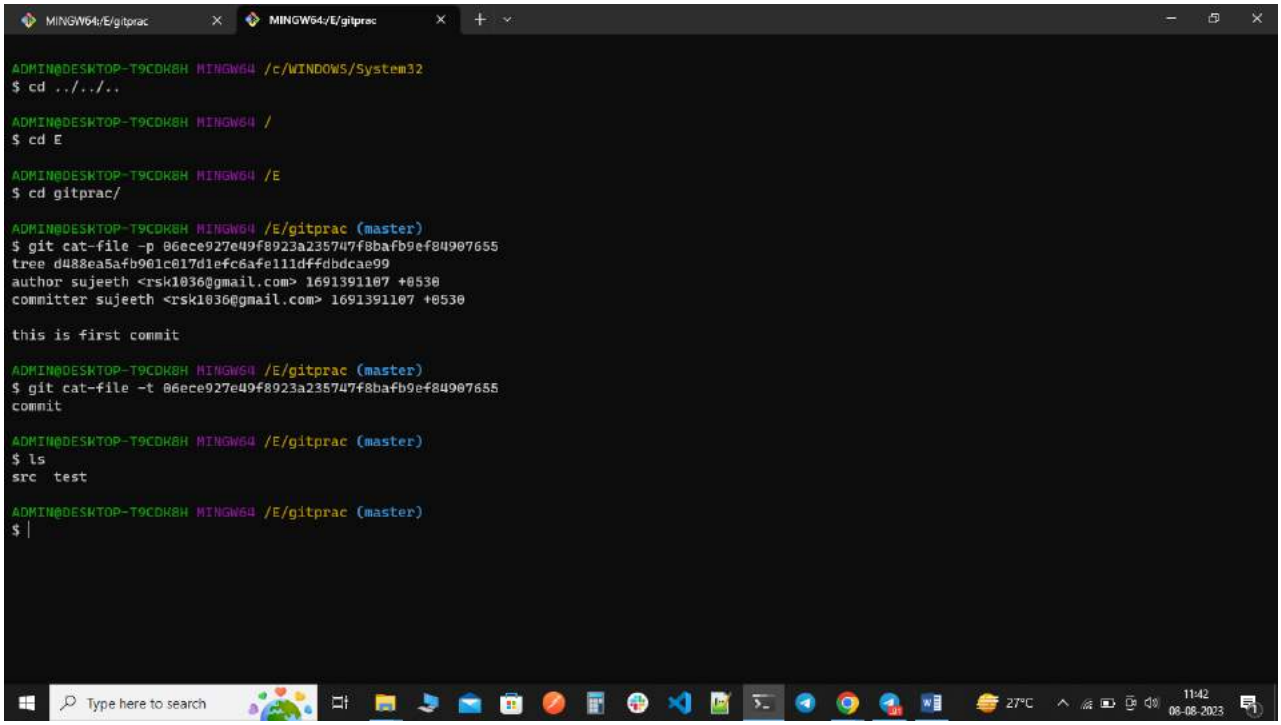


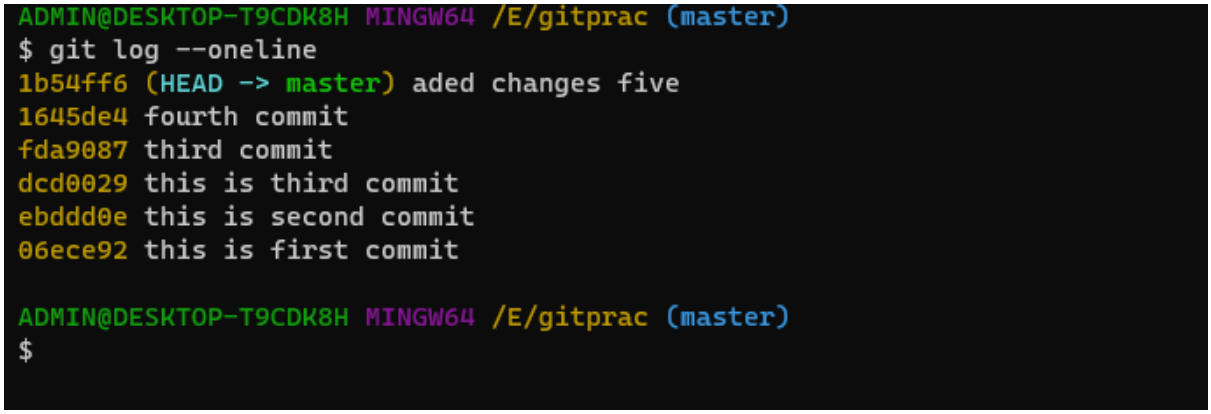
- In Git by default there will be one branch which is called as master which looks at latest commit id. Checkout commands moves the HEAD position. By default as master points to latest commit, HEAD points to master. IF you want navigate back in history git checkout to get back to latest commit git checkout master
- Note: checkout has other flavors which we are yet to know.



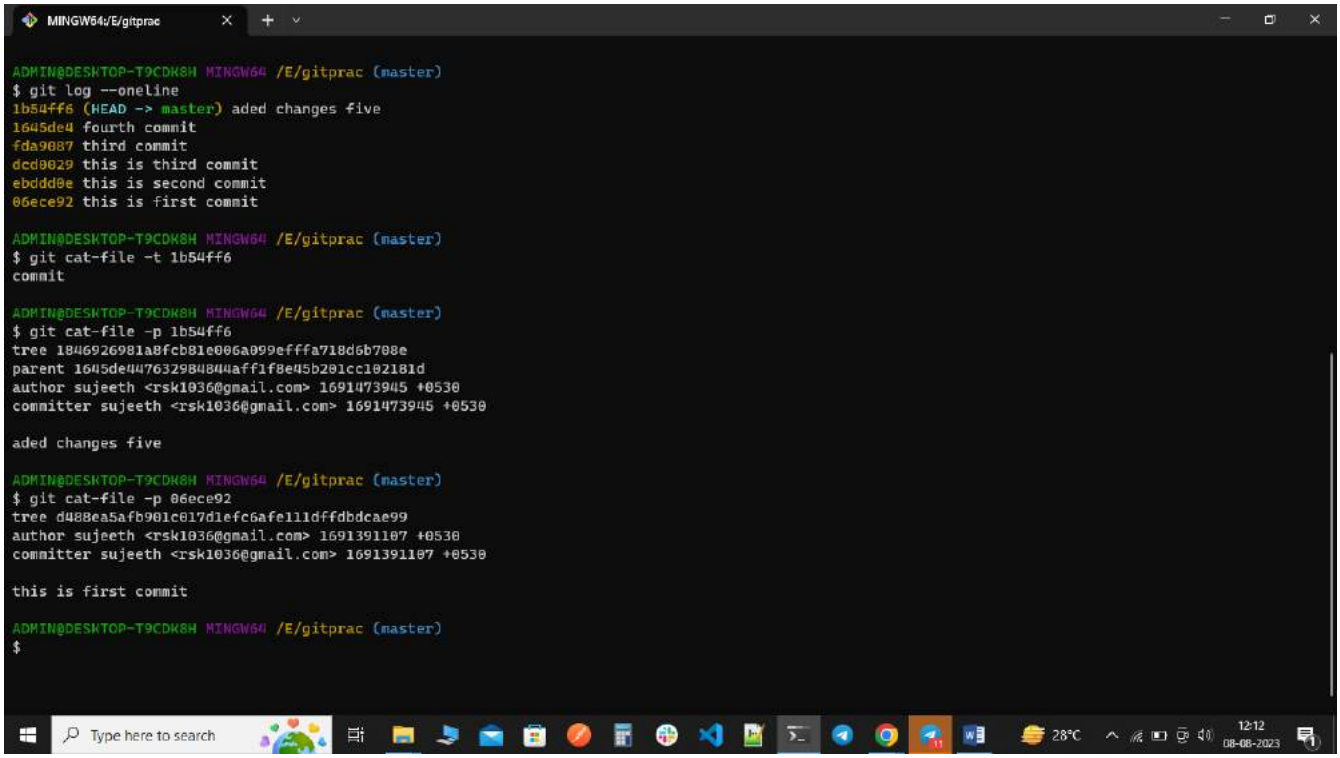
Lets Dive into How git works

`git cat-file -t (commit id)` **it tells the type of what you are looking at** `git cat-file -p` **it prints the values**



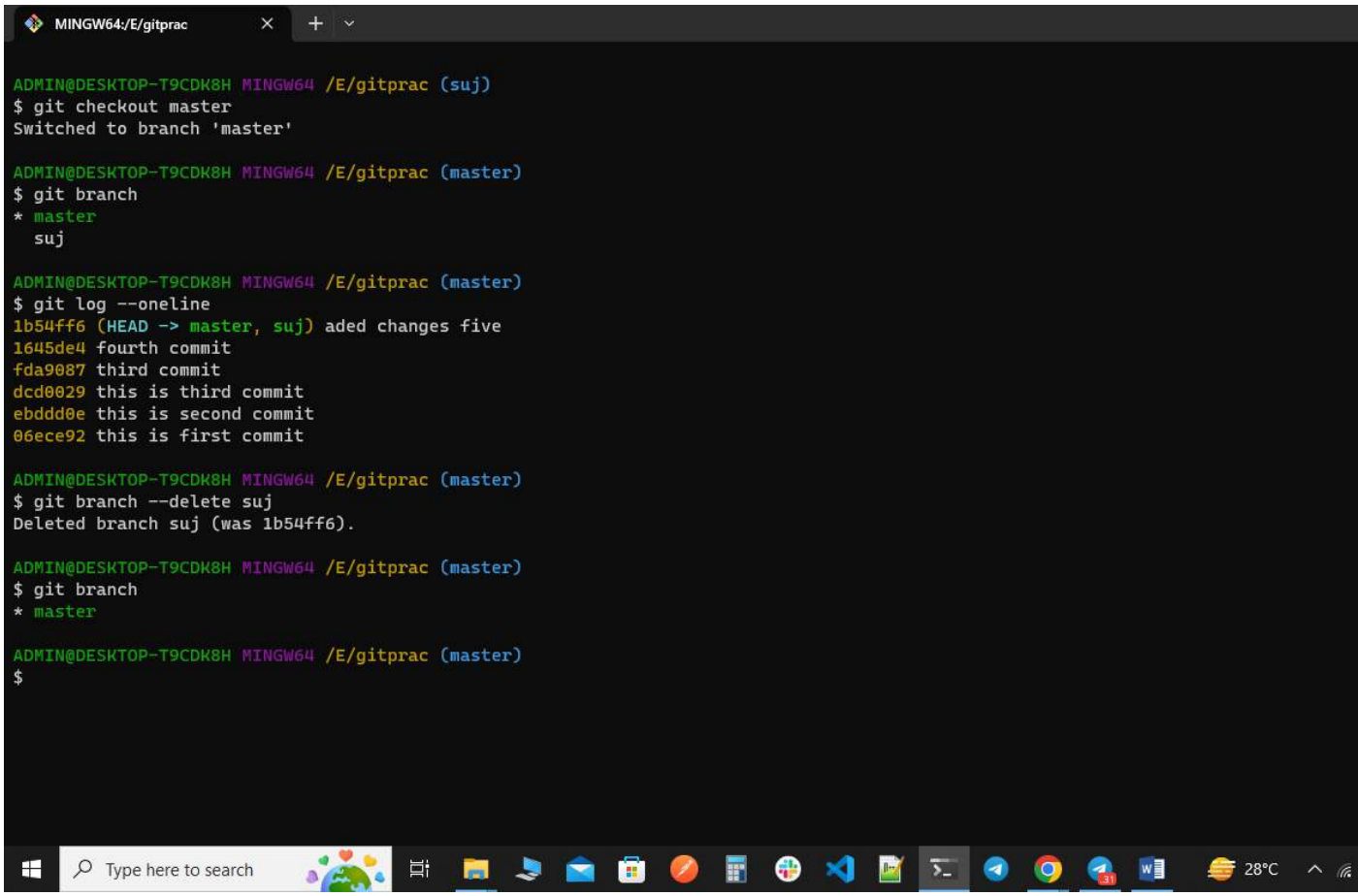
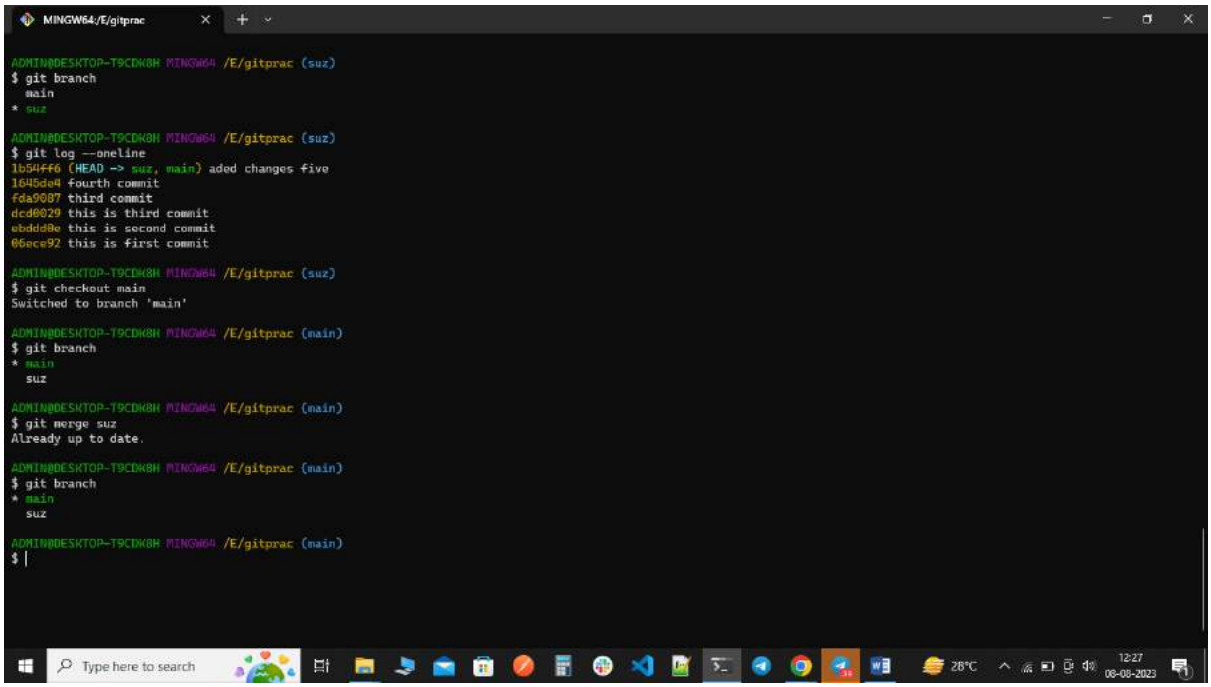


- In Git by default there will be one branch which is called as master which looks at latest commit id.
- Checkout commands moves the HEAD position. By default as master points to latest commit, HEAD points to master. IF you want navigate back in history `git checkout <commit-id>` to get back to latest commit `git checkout master`
- Note: checkout has other flavors which we are yet to know.
-



The above is git branch changing

Git branch delete suj



Git branch to main and then create and switch a branch suz