

UCS 537: SOURCE CODE MANAGEMENT

THAPAR UNIVERSITY, PATIALA

NAME: YOGESH MODI

COE: 27

ROLL NO: -102003682

SUBMITTED TO :
DR. ANAMIKA SHARMA

SUBMITTED ON: -
23-08-2022

ASSIGNMENT-1

```
modiy@LAPTOP-4B09UHFI MINGW64 ~
$ cd shopping/

modiy@LAPTOP-4B09UHFI MINGW64 ~/shopping
$ git init
Initialized empty Git repository in C:/Users/modiy/shopping/.git/

modiy@LAPTOP-4B09UHFI MINGW64 ~/shopping (master)
$ touch yard.txt

modiy@LAPTOP-4B09UHFI MINGW64 ~/shopping (master)
$ touch groceries.txt

modiy@LAPTOP-4B09UHFI MINGW64 ~/shopping (master)
$ git add .

modiy@LAPTOP-4B09UHFI MINGW64 ~/shopping (master)
$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   groceries.txt
        new file:   yard.txt

modiy@LAPTOP-4B09UHFI MINGW64 ~/shopping (master)
$ git commit -m "create yard and groceries"
[master (root-commit) 5a342d0] create yard and groceries
2 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 groceries.txt
create mode 100644 yard.txt

modiy@LAPTOP-4B09UHFI MINGW64 ~/shopping (master)
$ git add .

modiy@LAPTOP-4B09UHFI MINGW64 ~/shopping (master)
$ git commit -m "add ingrediedents for tomato sooup"
> ^C

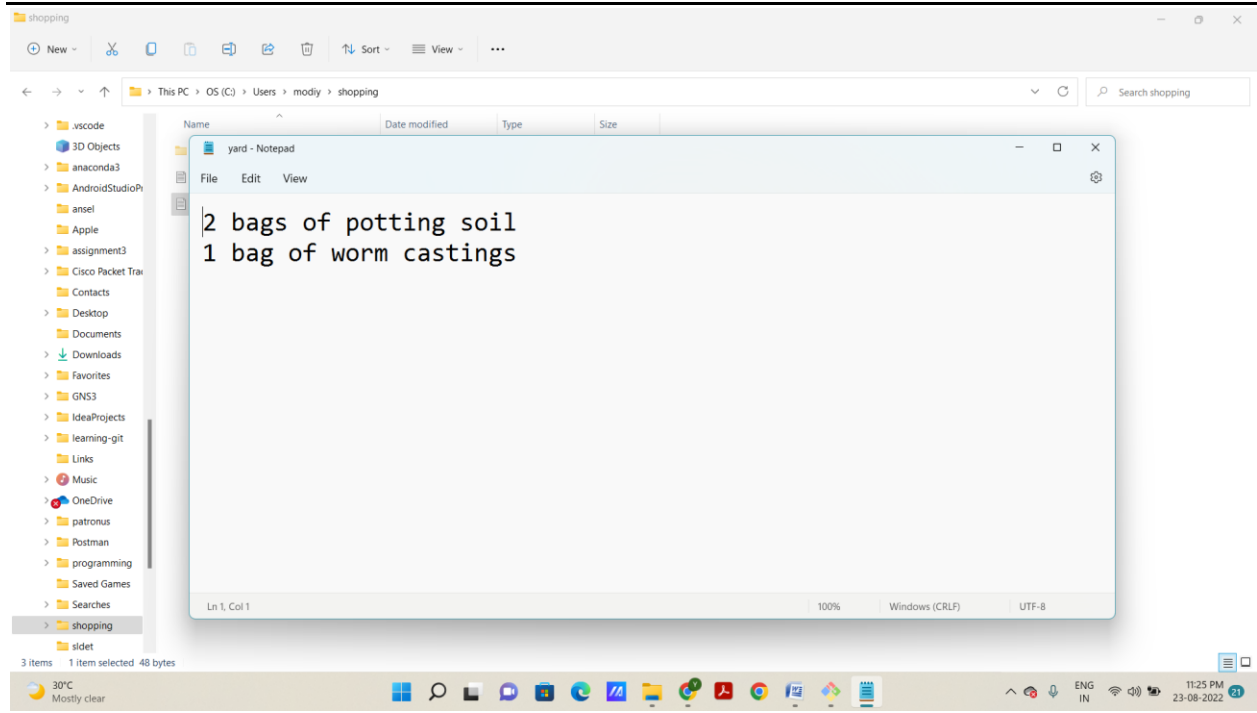
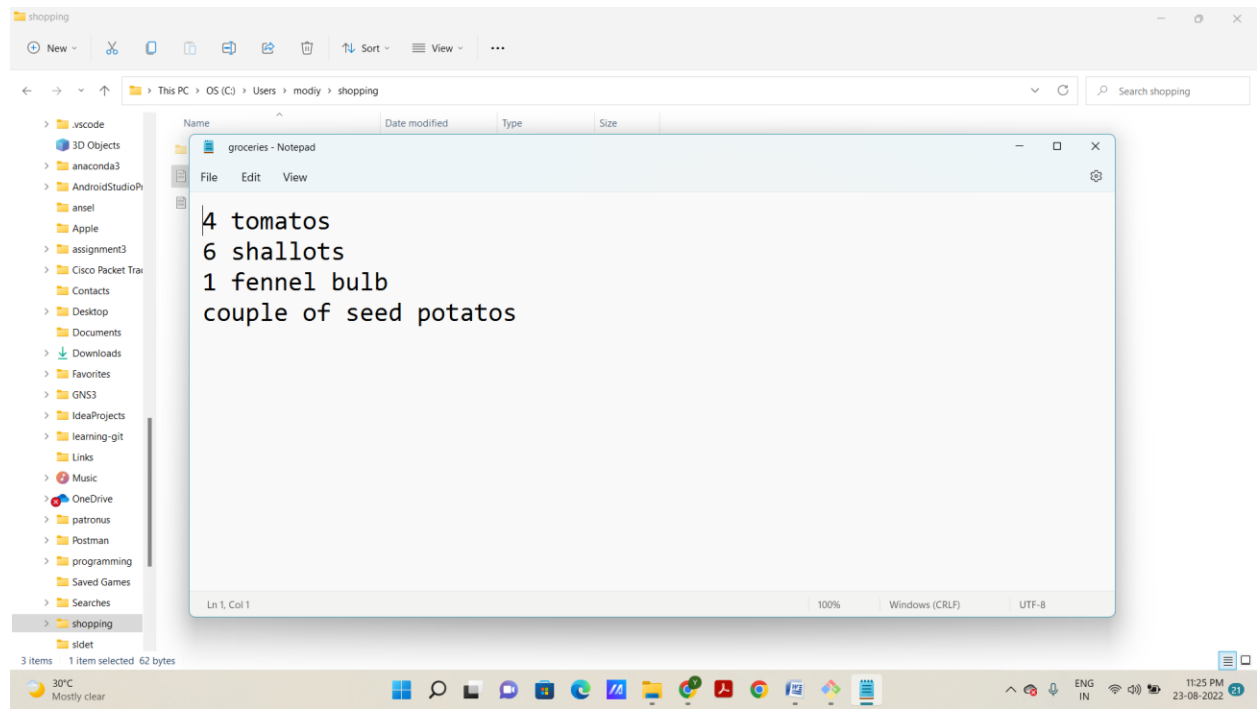
modiy@LAPTOP-4B09UHFI MINGW64 ~/shopping (master)
$ git commit -m "add ingrediedents for tomato sooup"
[master 5e0ed09] add ingrediedents for tomato sooup
2 files changed, 5 insertions(+)

modiy@LAPTOP-4B09UHFI MINGW64 ~/shopping (master)
$ git add .

modiy@LAPTOP-4B09UHFI MINGW64 ~/shopping (master)
$ git commit -m "add items needed to grow potatos"
> ^C

modiy@LAPTOP-4B09UHFI MINGW64 ~/shopping (master)
$ git commit -m "add items needed to grow potatos"
[master 1c7d6fd] add items needed to grow potatos
2 files changed, 3 insertions(+), 2 deletions(-)

modiy@LAPTOP-4B09UHFI MINGW64 ~/shopping (master)
$
```



ASSIGNMENT -2

The image displays two screenshots of a Windows desktop environment, illustrating the development and version control of a C++ program.

Top Screenshot:

- Terminal (MINGW64 Shell):** Shows the initial setup of a Git repository in the directory `C:\Users\modiy\Desktop\programming\`. The user creates an empty repository, adds a file named `function.c`, and commits it with the message "Add empty function file". The commit hash is `2ee02`.
- Dev-C++ IDE:** Displays the source code for `function.c`. The code includes `stdio.h` and defines a `fibonacciSeries` function that calculates the Fibonacci sequence up to a given range. The `main` function prompts the user for a range and prints the resulting series.

Bottom Screenshot:

- Terminal (MINGW64 Shell):** Shows the user adding a new file named `recursion.c` to the repository. The user commits it with the message "Recursion created". The commit hash is `bebe9a9`. The terminal also shows the status of the repository, indicating that `recursion.exe` is an untracked file.
- Dev-C++ IDE:** Displays the source code for `recursion.c`. The code includes `stdio.h` and defines a `recursion` function that calculates the factorial of a given number using recursion. The `main` function prompts the user for a number and prints the result.

MINGW64/C:/Users/modiy/desktop/programming

```
$ git commit -m "Recursion created"
[master bebe9a9] Recursion created
1 file changed, 23 insertions(+)

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    recursion.exe

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

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ git add recursion.c

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ git commit -m "Recursion created"
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    recursion.exe

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

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    recursion.exe

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

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ git add
Nothing specified, nothing added.
hint: Maybe you wanted to say "git add ."?
hint: Turn this message off by running
hint: "git config advice.addEmptyPaths false"

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ git add .

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ git commit -m "Recursion created"
[master 9ea9580] recursion created
3 files changed, 3 insertions(+)
create mode 100644 recursion.exe

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ git status
On branch master
nothing to commit, working tree clean

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$
```

classroom.google.com/c/NDk3MTk1NTESNDY3

Assignment 2.pdf

Open with

https://api.scribd.com/doc/...

Assignment 2

1. Make a new folder called `programming`
2. Make a new git repo inside the folder (make sure you're not in an existing repo)
3. Create a new file called `function.c` (leave it empty for now)
4. Add and commit the empty file, with the message "add empty function file"
5. In the `function.c` file, add the following:
6. Write c code to create a function for finding Fibonacci series.
7. Add and commit the changes, with the commit message "Fibonacci function created"
8. Check git status
9. Create a new file called `recursion.c` (leave it empty for now)
10. Add and commit the empty file, with the message "add empty recursion.c file"
11. In the `recursion.c` file, add the following:
12. Write c code to find the factorial of a number using recursion.
13. Add and commit the changes, with the commit message "Recursion created"
14. Check git status
15. Add one more function in `function.c` file.
16. Add one more recursion code in `recursion.c` file
17. Add and commit the changes, with the commit message "Recursion created"
18. Check git status

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31°C

Partly sunny

07:11 PM

22-08-2022

MINGW64/C:/Users/modiy/desktop/programming

```
$ mkdir Programming
$ cd programming/

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming
$ git init
Initialized empty Git repository in C:/Users/modiy/Desktop/Programming/.git/

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ vim function.c

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ add function.c
bash: add: command not found

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ git add function.c

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ git commit -m "Add empty function file"
[master (root-commit) 2eeee02] Add empty function file
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 function.c

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ pwd
C:/Users/modiy/desktop/programming

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ git add function.c

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ git commit -m "Fibonacci function created"
[master d12d8ef] Fibonacci function created
1 file changed, 26 insertions(+)

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ git status
On branch master
nothing to commit, working tree clean

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$ git log
commit d12d8efb8ce9101b0dd4ce4574bc0c9fcf97087 (HEAD -> master)
Author: Ymodi188 <sudhamodi0905@gmail.com>
Date: Mon Aug 22 18:45:14 2022 +0530

    Fibonacci function created

commit 2eeee027b5191cc32253cae0ba77299b5e56b232
Author: Ymodi188 <sudhamodi0905@gmail.com>
Date: Mon Aug 22 18:42:09 2022 +0530

    Add empty function file

addiy@LAPTOP-4B09UHF1 MINGW64 ~/desktop/programming (master)
$
```

36°C

Mostly sunny

06:45 PM

22-08-2022

ASSIGNMENT-3

```
modiy@LAPTOP-4B09UHFI MINGW64 ~
$ pwd

modiy@LAPTOP-4B09UHFI MINGW64 ~
$ mkdir patronus
mkdir: cannot create directory 'patronus': File exists

modiy@LAPTOP-4B09UHFI MINGW64 ~
$ mkdir assignment3

modiy@LAPTOP-4B09UHFI MINGW64 ~
$ cd assignment3/

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3
$ ls -a
./  ../

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3
$ git init
bash: $: command not found

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3
$ git init
Initialized empty Git repository in C:/Users/modiy/assignment3/.git/

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (master)
$ ls -a
./  ../  .git/

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (master)
$ touch patronous.txt

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (master)
$ git add patronous.txt

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (master)
$ git commit -m "Add empty patronus file"
[master (root-commit) f351ecd] Add empty patronus file
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 patronous.txt

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (master)
$ git status
On branch master
nothing to commit, working tree clean

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (master)
$ git log
commit f351ecd1f1632849d274b221e7644437bd9f78cd (HEAD -> master)
Author: Ymodi18@ <sudhamodi0905@gmail.com>
Date: Tue Aug 23 22:49:20 2022 +0530

    Add empty patronus file

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (master)
$ git branch harry

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (master)
$ git branch harry * master snape
usage: git branch [<options>] [-r | -a] [--merged] [--no-merged]
       or: git branch [<options>] [-f] [--recurse-submodules] <branch-name> [<start-
point>]
       or: git branch [<options>] [-l] [<pattern>...]
       or: git branch [<options>] [-r] (-d | -D) <branch-name>...
       or: git branch [<options>] (-m | -M) [<old-branch>] <new-branch>
       or: git branch [<options>] (-c | -C) [<old-branch>] <new-branch>
       or: git branch [<options>] [-r | -a] [--points-at]
```

or: git branch [<options>] [-r | -a] [--format]

Generic options

-v, --verbose	show hash and subject, give twice for upstream branch
-q, --quiet	suppress informational messages
-t, --track[=(direct inherit)]	set branch tracking configuration
-u, --set-upstream-to <upstream>	change the upstream info
--unset-upstream	unset the upstream info
--color[=<when>]	use colored output
-r, --remotes	act on remote-tracking branches
--contains <commit>	print only branches that contain the commit
--no-contains <commit>	print only branches that don't contain the commit
--abbrev[=<n>]	use <n> digits to display object names

Specific git-branch actions:

-a, --all	list both remote-tracking and local branches
-d, --delete	delete fully merged branch
-D	delete branch (even if not merged)
-m, --move	move/rename a branch and its reflog
-M	move/rename a branch, even if target exists
-c, --copy	copy a branch and its reflog
-C	copy a branch, even if target exists
-l, --list	list branch names
--show-current	show current branch name
--create-reflog	create the branch's reflog
--edit-description	edit the description for the branch
-f, --force	force creation, move/rename, deletion
--merged <commit>	print only branches that are merged
--no-merged <commit>	print only branches that are not merged
--column[=<style>]	list branches in columns
--sort <key>	field name to sort on
--points-at <object>	print only branches of the object
-i, --ignore-case	sorting and filtering are case insensitive
--recurse-submodules	recurse through submodules
--format <format>	format to use for the output

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (master)
```

```
$ git branch
harry
* master
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (master)
```

```
$ git branch
harry
* master
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (master)
```

```
$ git switch harry
Switched to branch 'harry'
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (harry)
```

```
$ git status
On branch harry
nothing to commit, working tree clean
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (harry)
```

```
$ git log
commit f351ecd1f1632849d274b221e7644437bd9f78cd (HEAD -> harry, master)
Author: Ymodi18@ <sudhamodi0905@gmail.com>
Date: Tue Aug 23 22:49:20 2022 +0530
```

Add empty patronus file

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (harry)
```

```
$ git status
On branch harry
nothing to commit, working tree clean
```

```

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (harry)
$ pwd
/c/Users/modiy/assignment3

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (harry)
$ ^C

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (harry)
$ git status
On branch harry
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:   patronus.txt

no changes added to commit (use "git add" and/or "git commit -a")

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (harry)
$ git add patronus.txt
fatal: pathspec 'patronus.txt' did not match any files

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (harry)
$ git add patronus.txt

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (harry)
$ git commit -m "Add harrys stag patronus"
[harry 2a4de94] Add harrys stag patronus
1 file changed, 1 insertion(+)

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (harry)
$ git log
commit 2a4de94b4088de253f60797bb8f84663c2574795 (HEAD -> harry)
Author: Ymodi18@ <sudhamodi0905@gmail.com>
Date:   Tue Aug 23 22:57:50 2022 +0530

    Add harrys stag patronus

commit f351ecd1f1632849d274b221e7644437bd9f78cd (master)
Author: Ymodi18@ <sudhamodi0905@gmail.com>
Date:   Tue Aug 23 22:49:20 2022 +0530

    Add empty patronus file

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (harry)
$ git checkout master
Switched to branch 'master'

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (master)
$ git switch snape
fatal: invalid reference: snape

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (master)
$ git branch snape

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (master)
$ git branch
  harry
* master
  snape

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (master)
$ git switch snape
Switched to branch 'snape'

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (snape)
$ git status
On branch snape
nothing to commit, working tree clean

modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (snape)
$ git status
On branch snape

```


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: patronous.txt

no changes added to commit (use "git add" and/or "git commit -a")

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (snape)
$ git add patronous.txt
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (snape)
$ git commit -m "add snape's doe patronous"
[snap 997d900] add snape's doe patronous
1 file changed, 1 insertion(+)
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (snape)
$ git log
commit 997d900e1c1fb798d539398747fbabde9472fd09 (HEAD -> snape)
Author: Ymodi18@ <sudhamodi0905@gmail.com>
Date: Tue Aug 23 23:01:05 2022 +0530
```

add snape's doe patronous

```
commit f351ecd1f1632849d274b221e7644437bd9f78cd (master)
Author: Ymodi18@ <sudhamodi0905@gmail.com>
Date: Tue Aug 23 22:49:20 2022 +0530
```

Add empty patronus file

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (snape)
$ git branch lilly
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (snape)
$ git branch
harry
lilly
master
* snape
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (snape)
$ git status
On branch snape
nothing to commit, working tree clean
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (snape)
$ git log
commit 997d900e1c1fb798d539398747fbabde9472fd09 (HEAD -> snape, lilly)
Author: Ymodi18@ <sudhamodi0905@gmail.com>
Date: Tue Aug 23 23:01:05 2022 +0530
```

add snape's doe patronous

```
commit f351ecd1f1632849d274b221e7644437bd9f78cd (master)
Author: Ymodi18@ <sudhamodi0905@gmail.com>
Date: Tue Aug 23 22:49:20 2022 +0530
```

Add empty patronus file

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (snape)
$ git switch lilly
Switched to branch 'lilly'
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (lilly)
$ git switch master
Switched to branch 'master'
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (master)
$ git switch lilly
Switched to branch 'lilly'
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (lilly)
$ git add patronous.txt
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (lilly)
```

```
$ git commit -m "Add lily,s doe patronous"
```

```
On branch lilly
```

```
nothing to commit, working tree clean
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (lilly)
```

```
$ git log
```

```
commit 997d900e1c1fb798d539398747fbabde9472fd09 (HEAD -> lilly, snape)
```

```
Author: Ymodi18@ <sudhamodi0905@gmail.com>
```

```
Date: Tue Aug 23 23:01:05 2022 +0530
```

```
add snape's doe patronous
```

```
commit f351ecd1f1632849d274b221e7644437bd9f78cd (master)
```

```
Author: Ymodi18@ <sudhamodi0905@gmail.com>
```

```
Date: Tue Aug 23 22:49:20 2022 +0530
```

```
Add empty patronus file
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (lilly)
```

```
$ git branch
```

```
harry
```

```
* lilly
```

```
master
```

```
snape
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (lilly)
```

```
$ git branch -d snape
```

```
Deleted branch snape (was 997d900).
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (lilly)
```

```
$ git branch
```

```
harry
```

```
* lilly
```

```
master
```

```
modiy@LAPTOP-4B09UHFI MINGW64 ~/assignment3 (lilly)
```

```
$
```

ASSIGNMENT-4