
Git vs. GitHub

Assignment no. 1

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GitHub URL:

<https://github.com/Fiza59>

Assignment No.1

GIT and GitHub

Exercise 0 :

- In this exercise we were asked to put local C++ project on GitHub.

The screenshot shows a web browser displaying the GitHub repository page for 'Fiza59 / Luck-game'. The browser's address bar shows the URL 'https://github.com/Fiza59/Luck-game'. The repository page includes a header with the repository name, a 'Watch' button, and statistics for stars (0) and forks (0). Below the header, there are tabs for 'Code', 'Issues', 'Pull requests', 'Projects', 'Wiki', 'Settings', and 'Insights'. The 'Code' tab is selected, showing a description of the project: 'This is a simple casino game. First, player has to give an amount for bet and then player will be asked a number out of 1-10, if the number matches the lucky number player wins otherwise he loses bet.' Below the description, there are statistics for commits (2), branches (2), releases (0), and contributors (1). A 'Clone or download' button is visible, which has opened a dropdown menu. The dropdown menu shows the option to 'Clone with HTTPS' and provides the URL 'https://github.com/Fiza59/Luck-game.git'. Below the dropdown, there is a table of files in the repository:

File	Commit
README.md	Initial commit
file.txt	practice change
newfile.txt	practice change

Below the table, the 'README.md' file is selected, and its content is displayed. The content starts with the title 'Luck-game' and the same description as the repository page: 'This is a simple casino game. First, player has to give an amount for bet and then player will be asked a number out of 1-10, if the number matches the lucky number player wins otherwise he loses bet.'

- Working on GitBash

```
MINGW64:/d/GIT assignment working/Question 0

Super@Super-PC MINGW64 /d/GIT assignment working/Question 0 (master)
$ git init
Reinitialized existing Git repository in D:/GIT assignment working/Question 0/.git/

Super@Super-PC MINGW64 /d/GIT assignment working/Question 0 (master)
$ git commit -m "first commit"
On branch master

Initial commit

nothing to commit

Super@Super-PC MINGW64 /d/GIT assignment working/Question 0 (master)
$ git remote add origin https://github.com/Fiza59/Luck-game.git

Super@Super-PC MINGW64 /d/GIT assignment working/Question 0 (master)
$ git add .

Super@Super-PC MINGW64 /d/GIT assignment working/Question 0 (master)
$ git commit -m "change"
On branch master

Initial commit

nothing to commit

Super@Super-PC MINGW64 /d/GIT assignment working/Question 0 (master)
$ git push -u origin master
```

Quick setup — if you've done this kind of thing before

 Set up in Desktop or ☐ HTTPS ☐ SSH

We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

...or create a new repository on the command line

```
echo "# Luck-game" >> README.md
git init
git add README.md
git commit -m "first commit"
git remote add origin https://github.com/Fiza59/Luck-game.git
git push -u origin master
```

...or push an existing repository from the command line

```
git remote add origin https://github.com/Fiza59/Luck-game.git
git push -u origin master
```

...or import code from another repository

You can initialize this repository with code from a Subversion, Mercurial, or TFS project.

Exercise 1:

Creating and using a local repository

- Creating a directory

```
MINGW64:/d/practice GIT/gitpractice

Super@Super-PC MINGW64 /d/practice GIT
$ pwd
/d/practice GIT

Super@Super-PC MINGW64 /d/practice GIT
$ mkdir gitpractice

Super@Super-PC MINGW64 /d/practice GIT
$ cd gitpractice

Super@Super-PC MINGW64 /d/practice GIT/gitpractice
$ git init
Initialized empty Git repository in D:/practice GIT/gitpractice/.git/
```

- Checking current status of repository

```
Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git status
On branch master

No commits yet

nothing to commit (create/copy files and use "git add" to track)
```

- Configuration

```
Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git config --global user.name "Fiza Batool"

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git config --global user.email fizabatoool19982gamil.com
```

- Configuration list

```
MINGW64:/d/practice GIT/gitpractice

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git config --list
core.symlinks=false
core.autocrlf=true
core.fscache=true
color.diff=auto
color.status=auto
color.branch=auto
color.interactive=true
help.format=html
rebase.autosquash=true
http.sslcainfo=C:/Program Files/Git/mingw64/ssl/certs/ca-bundle.crt
http.sslbackend=openssl
diff.astextplain.textconv=astextplain
filter.lfs.clean=git-lfs clean -- %f
filter.lfs.smudge=git-lfs smudge -- %f
filter.lfs.required=true
filter.lfs.process=git-lfs filter-process
filter.lfs.required=true
filter.lfs.clean=git-lfs clean -- %f
filter.lfs.smudge=git-lfs smudge -- %f
user.name=Fiza Batool
user.email=fizabatoool19982gamil.com
core.editor=notepad
core.editor=notepad
core.repositoryformatversion=0
core.filemode=false
core.bare=false
core.logallrefupdates=true
core.symlinks=false
core.ignorecase=true
```

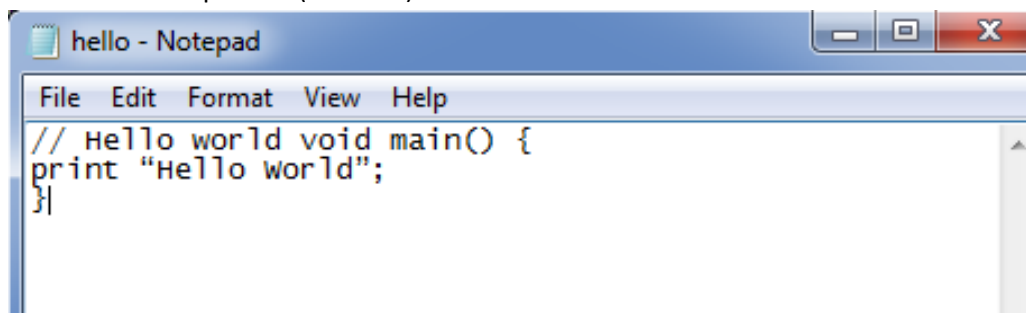
- Changing the editor (notepad)

```
Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git config --global core.editor notepad
```

- Adding a new file (hello.txt)

```
Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ notepad hello.txt
```

- Contents in notepad file (hello.txt)



```
hello - Notepad
File Edit Format View Help
// Hello world void main() {
print "Hello world";
}|
```

- Checking status

```
MINGW64:/d/practice GIT/gitpractice

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git status
On branch master

No commits yet

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

        hello.txt

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

- Committing all the changes

```
Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git commit -m 'description of change'
On branch master

Initial commit

Untracked files:
        hello.txt

nothing added to commit but untracked files present
```

- After making change in notepad file (hello.txt), running status again

```
Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git status
On branch master

No commits yet

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

        hello.txt

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

This can be clearly seen that the status of file has changed but not staged, so we need to stage these changes

- Staging the changes

```

MINGW64:/d/practice GIT/gitpractice

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git add hello.txt

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git commit -m 'description of change'
[master (root-commit) 09016a9] description of change
1 file changed, 3 insertions(+)
create mode 100644 hello.txt

```

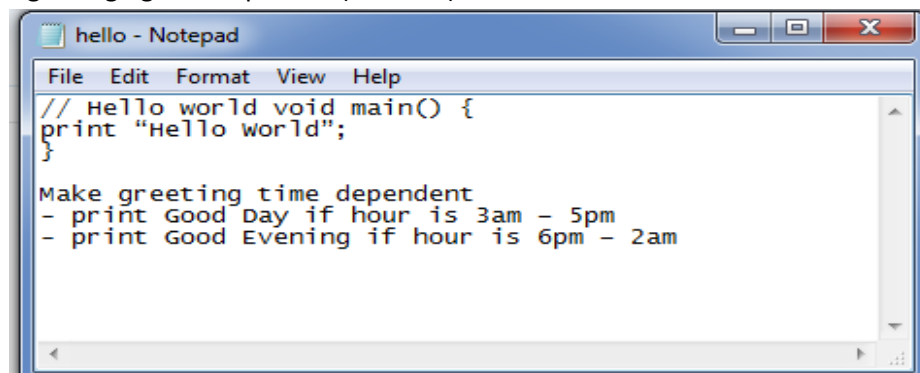
- Status check

```

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git status
On branch master
nothing to commit, working tree clean

```

- Making changing in notepad file (hello.txt)



- Staging/committing changes made above

```

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git add hello.txt

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git commit -m 'description of change'
[master 2eac4f7] description of change
1 file changed, 3 insertions(+), 1 deletion(-)

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git commit
On branch master
Changes not staged for commit:
  modified:   hello.txt

no changes added to commit

```

- History of changes

```
Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git log
commit 2eac4f70edcee504e107313e43b13c9bb97a3e84 (HEAD -> master)
Author: Fiza Batool <fizabatool19982gamil.com>
Date:   Sun Sep 17 22:28:47 2017 +0500

    description of change

commit 09016a9618f3f45066b40de919c9635dd1301a2b
Author: Fiza Batool <fizabatool19982gamil.com>
Date:   Sun Sep 17 22:26:50 2017 +0500

    description of change
```

- Viewing last 3 commits

```
MINGW64:/d/practice GIT/gitpractice

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git log -n 3
commit 2eac4f70edcee504e107313e43b13c9bb97a3e84 (HEAD -> master)
Author: Fiza Batool <fizabatool19982gamil.com>
Date:   Sun Sep 17 22:28:47 2017 +0500

    description of change

commit 09016a9618f3f45066b40de919c9635dd1301a2b
Author: Fiza Batool <fizabatool19982gamil.com>
Date:   Sun Sep 17 22:26:50 2017 +0500

    description of change
```

- Viewing difference in each commit

```
MINGW64:/d/practice GIT/gitpractice

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git log -p
commit 2eac4f70edcee504e107313e43b13c9bb97a3e84 (HEAD -> master)
Author: Fiza Batool <fizabatool19982gamil.com>
Date:   Sun Sep 17 22:28:47 2017 +0500

    description of change

diff --git a/hello.txt b/hello.txt
index 3cd032a..9758e55 100644
--- a/hello.txt
+++ b/hello.txt
@@ -1,3 +1,5 @@
 // Hello world void main() {
 print <93>Hello World<94>;
-}
\ No newline at end of file
+}
+
+practice ongoing
\ No newline at end of file

commit 09016a9618f3f45066b40de919c9635dd1301a2b
Author: Fiza Batool <fizabatool19982gamil.com>
Date:   Sun Sep 17 22:26:50 2017 +0500

    description of change

diff --git a/hello.txt b/hello.txt
new file mode 100644
index 0000000..3cd032a
--- /dev/null
+++ b/hello.txt
@@ -0,0 +1,3 @@
+// Hello world void main() {
+print <93>Hello World<94>;
+}
\ No newline at end of file
```


- Combine view of both 'last 3 commits' and 'changes in each commit'

```

MINGW64:/d/practice GIT/gitpractice

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git log -p -n 3
commit 2eac4f70edcee504e107313e43b13c9bb97a3e84 (HEAD -> master)
Author: Fiza Batool <fizabatool19982gamil.com>
Date: Sun Sep 17 22:28:47 2017 +0500

    description of change

diff --git a/hello.txt b/hello.txt
index 3cd032a..9758e55 100644
--- a/hello.txt
+++ b/hello.txt
@@ -1,3 +1,5 @@
 // Hello world void main() {
   print <93>Hello World<94>;
-}
\ No newline at end of file
+}
+
+practice ongoing
\ No newline at end of file

commit 09016a9618f3f45066b40de919c9635dd1301a2b
Author: Fiza Batool <fizabatool19982gamil.com>
Date: Sun Sep 17 22:26:50 2017 +0500

    description of change

diff --git a/hello.txt b/hello.txt
new file mode 100644
index 0000000..3cd032a
--- /dev/null
+++ b/hello.txt
@@ -0,0 +1,3 @@
+// Hello world void main() {
+print <93>Hello World<94>;
+}
\ No newline at end of file

```

- Checkout to previous state

```

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git checkout
M      hello.txt

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git checkout master
Already on 'master'
M      hello.txt

```

- Adding and committing '.gitignore' file in project

```

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ notepad .gitignore.txt

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git commit -m 'created .gitignore'
On branch master
Untracked files:
  .gitignore.txt

nothing added to commit but untracked files present

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git add .gitignore.txt

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git commit -m 'created .gitignore'
[master 87acefc] created .gitignore
1 file changed, 4 insertions(+)
 create mode 100644 .gitignore.txt

```

- Creating a bin file ,adding a file to it and creating .class file

```

MINGW64:/d/practice GIT/gitpractice
$ git add .gitignore.txt

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git commit -m 'created .gitignore'
[master 87acefc] created .gitignore
1 file changed, 4 insertions(+)
create mode 100644 .gitignore.txt

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ mkdir bin

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ touch bin/somefile.exe

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ touch file.class

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)

        bin/
        file.class

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

```

- Viewing the changes not added yet and will be added in next commit

```

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git diff

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git diff --staged

```

- Removing the unnecessary file and committing

```

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git rm hello.txt
rm 'hello.txt'

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git commit -m 'message'
[master 746900b] message
1 file changed, 5 deletions(-)
delete mode 100644 hello.txt

```

- Stopping to track a file and deleting old file

```

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ git rm --cached 'hello.txt'
fatal: pathspec 'hello.txt' did not match any files

Super@Super-PC MINGW64 /d/practice GIT/gitpractice (master)
$ mv .gitignore.txt Fiza.txt

```

Exercise 2:

Cloning an existing repository

- Getting the cloning link from GitHub

Fiza59 / Luck-game

Watch 0 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Settings Insights

This is a simple casino game. First, player has to give an amount for bet and then player will be asked a number out of 1-10, if the number matches the lucky number player wins otherwise he loses bet.

Add topics

2 commits 2 branches 0 releases 1 contributor

Branch: master New pull request

Create new file Upload files Find file Clone or download

Fiza Batool practice change

README.md	Initial commit
file.txt	practice change
newfile.txt	practice change

Open in Desktop Download ZIP

Clone with HTTPS
Use Git or checkout with SVN using the web URL.
`https://github.com/Fiza59/Luck-game.git`

Open in Desktop Download ZIP

README.md

Luck-game

- Proceeding according to given instructions

```
MINGW64:/d/Question 2/Luck-game

Super@Super-PC MINGW64 /d/Question 2
$ git clone https://github.com/Fiza59/Luck-game.git
Cloning into 'Luck-game'...
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.

Super@Super-PC MINGW64 /d/Question 2
$ cd Luck-game

Super@Super-PC MINGW64 /d/Question 2/Luck-game (master)
$ git remote -v
origin https://github.com/Fiza59/Luck-game.git (fetch)
origin https://github.com/Fiza59/Luck-game.git (push)

Super@Super-PC MINGW64 /d/Question 2/Luck-game (master)
$ notepad file

Super@Super-PC MINGW64 /d/Question 2/Luck-game (master)
$ echo "new file contents" >newfile.txt
```

- Contents added to text file

```
Super@Super-PC MINGW64 /d/Question 2/Luck-game (master)
$ git add newfile.txt
warning: LF will be replaced by CRLF in newfile.txt.
The file will have its original line endings in your working directory.

Super@Super-PC MINGW64 /d/Question 2/Luck-game (master)
$ git add file.txt

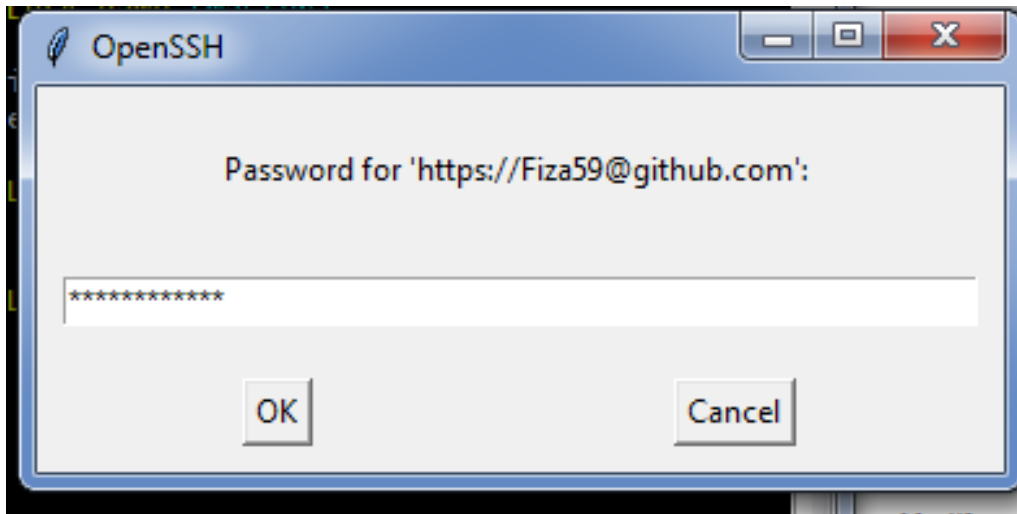
Super@Super-PC MINGW64 /d/Question 2/Luck-game (master)
$ git commit -m 'practice change'
[master 0b4b2bb] practice change
2 files changed, 2 insertions(+)
create mode 100644 file.txt
create mode 100644 newfile.txt

Super@Super-PC MINGW64 /d/Question 2/Luck-game (master)
$ git push
Username for 'https://github.com': Fiza59
Counting objects: 4, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (4/4), 346 bytes | 115.00 KiB/s, done.
Total 4 (delta 0), reused 0 (delta 0)
To https://github.com/Fiza59/Luck-game.git
c7b1a58..0b4b2bb master -> master

Super@Super-PC MINGW64 /d/Question 2/Luck-game (master)
$ git remote -v
origin https://github.com/Fiza59/Luck-game.git (fetch)
origin https://github.com/Fiza59/Luck-game.git (push)

Super@Super-PC MINGW64 /d/Question 2/Luck-game (master)
$ git pull origin master
From https://github.com/Fiza59/Luck-game
* branch      master      -> FETCH_HEAD
Already up-to-date.
```

- Logging in to my GitHub account



Exercise 3:

Contributing to an existing github project

- Getting cloning link from GitHub repository

This is a simple casino game. First, player has to give an amount for bet and then player will be asked a number out of 1-10, if the number matches the lucky number player wins otherwise he loses bet. Edit

[Add topics](#)

2 commits 1 branch 0 releases 1 contributor

Your recently pushed branches:

FizasContribution (less than a minute ago) Compare & pull request

Branch: master New pull request Create new file Upload files Find file Clone or download

Fiza Batool practice change	
README.md	Initial commit
file.txt	practice change
newfile.txt	practice change

Clone with HTTPS Use SSH

Use Git or checkout with SVN using the web URL.

<https://github.com/Fiza59/Luck-game.git> Copy

Open in Desktop Download ZIP

README.md

Luck-game

- Forking GitHub repository

This repository Search Pull requests Issues Marketplace Explore

Fiza59 / Luck-game Watch 0 Star 0 Fork 0

[Code](#) [Issues 0](#) [Pull requests 0](#) [Projects 0](#) [Wiki](#) [Settings](#) [Insights](#)

Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also [compare across forks](#).

base: master ... compare: FizasContribution ✓ Able to merge. These branches can be automatically merged.

Write Preview AA B i " < > ☰ ☷ ☶ ☵ ↶ @

Leave a comment

Reviewers ⚙

No reviews—request one

Assignees ⚙

No one—assign yourself

Labels ⚙

None yet

Projects ⚙

None yet

- Proceeding according to given instruction

```

MINGW64:/d/Question 3/Luck-game

Super@Super-PC MINGW64 /d/Question 3
$ git clone https://github.com/Fiza59/Luck-game.git
Cloning into 'Luck-game'...
remote: Counting objects: 7, done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 7 (delta 0), reused 4 (delta 0), pack-reused 0
Unpacking objects: 100% (7/7), done.

Super@Super-PC MINGW64 /d/Question 3
$ cd Luck-game

Super@Super-PC MINGW64 /d/Question 3/Luck-game (master)
$ git checkout -b FizasContribution
Switched to a new branch 'FizasContribution'

Super@Super-PC MINGW64 /d/Question 3/Luck-game (FizasContribution)
$ notepad References.txt

Super@Super-PC MINGW64 /d/Question 3/Luck-game (FizasContribution)
$ git add References.txt

Super@Super-PC MINGW64 /d/Question 3/Luck-game (FizasContribution)
$ git commit -m 'Fiza made changes'
[FizasContribution 3a2e8fc] Fiza made changes
1 file changed, 1 insertion(+)
 create mode 100644 References.txt

```

- Pushing origin

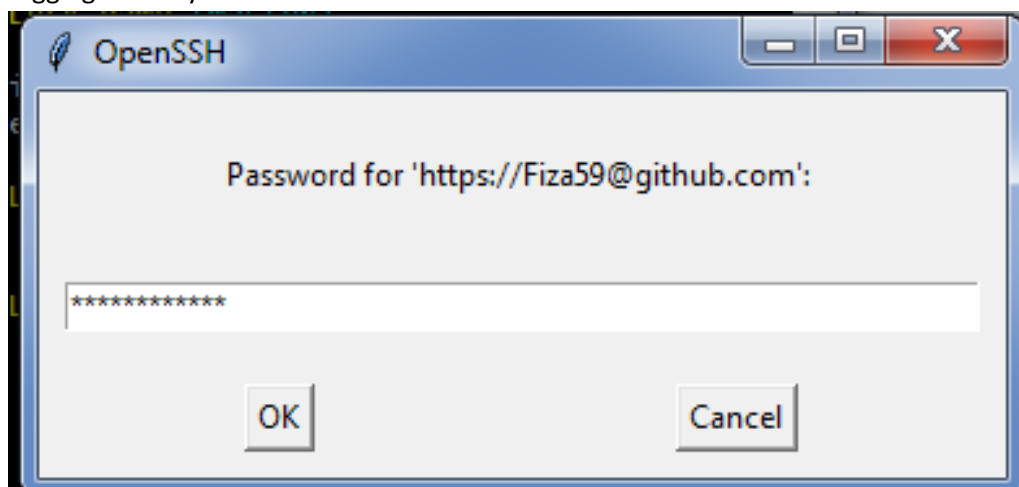
```

Super@Super-PC MINGW64 /d/Question 3/Luck-game (FizasContribution)
$ git push origin FizasContribution
Username for 'https://github.com': Fiza59
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 358 bytes | 179.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/Fiza59/Luck-game.git
 * [new branch]      FizasContribution -> FizasContribution

Super@Super-PC MINGW64 /d/Question 3/Luck-game (FizasContribution)
$ git remote add upstream https://github.com/Fiza59/Luck-game

```

- Logging in to my GitHub account



- Fetching upstream

```
MINGW64:/d/Question 3/Luck-game

Super@Super-PC MINGW64 /d/Question 3/Luck-game (FizasContribution)
$ git fetch upstream
From https://github.com/Fiza59/Luck-game
 * [new branch]      FizasContribution -> upstream/FizasContribution
 * [new branch]      master          -> upstream/master
```

- Merging upstream

```
Super@Super-PC MINGW64 /d/Question 3/Luck-game (FizasContribution)
$ git merge upstream/master
Already up-to-date.
```

- Pulling upstream master branch

```
Super@Super-PC MINGW64 /d/Question 3/Luck-game (FizasContribution)
$ git pull upstream master
From https://github.com/Fiza59/Luck-game
 * branch            master      -> FETCH_HEAD
Already up-to-date.
```

- Status check

```
Super@Super-PC MINGW64 /d/Question 3/Luck-game (FizasContribution)
$ git status
On branch FizasContribution
nothing to commit, working tree clean
```

- Committing change

```
Super@Super-PC MINGW64 /d/Question 3/Luck-game (FizasContribution)
$ git commit -m 'resolved conflicts'
On branch FizasContribution
nothing to commit, working tree clean
```

- Pushing the origin

```
Super@Super-PC MINGW64 /d/Question 3/Luck-game (FizasContribution)
$ git push origin FizasContribution
Username for 'https://github.com': Fiza59
Everything up-to-date
```

For pushing again the GitHub account was logged in as shown in above exercises

- *Final result after pushing the repository*

GitHub, Inc. [US] | <https://github.com/Fiza59/Luck-game/compare>




Papa's Taco Mia! | Fre Papa's Pancakeria Ho MyScrapNook | Other

Compare changes

Compare changes across branches, commits, tags, and more below. If you need to, you can also [compare across forks](#).



base: master ... compare: master

Create pull request Choose different branches or forks above to discuss and review changes.

Compare and review just about anything

Branches, tags, commit ranges, and time ranges. In the same repository and across forks.

EXAMPLE COMPARISONS	
 FizasContribution	37 minutes ago
 master@{1day}...master	24 hours ago

Exercise 4:

Adding a remote

- New repository created for this exercise

The screenshot shows a GitHub repository page for 'Fiza59/git-try-repository'. The repository is described as 'this repository is created only for learning purpose.' It has 1 commit, 1 branch, 0 releases, and 1 contributor. A 'Clone or download' button is visible, which has opened a dropdown menu. The dropdown menu shows 'Clone with HTTPS' as the selected option, with the URL 'https://github.com/Fiza59/git-try-repository' highlighted. Other options in the dropdown include 'Use SSH', 'Open in Desktop', and 'Download ZIP'. The repository's README.md file is also visible, showing the same description.

- Creating a local repository and initializing it

```
MINGW64:/d/GIT assignment working/Question 4/gittryrepo

Super@Super-PC MINGW64 /d/GIT assignment working/Question 4
$ mkdir gittryrepo

Super@Super-PC MINGW64 /d/GIT assignment working/Question 4
$ cd gittryrepo

Super@Super-PC MINGW64 /d/GIT assignment working/Question 4/gittryrepo
$ git init
Initialized empty Git repository in D:/GIT assignment working/Question 4/gittryrepo/.git/
```

- Creating a notepad file and committing it

```
Super@Super-PC MINGW64 /d/GIT assignment working/Question 4/gittryrepo (master)
$ notepad tryfile

Super@Super-PC MINGW64 /d/GIT assignment working/Question 4/gittryrepo (master)
$ git add tryfile.txt

Super@Super-PC MINGW64 /d/GIT assignment working/Question 4/gittryrepo (master)
$ git commit -m 'changes made'
[master (root-commit) f768858] changes made
1 file changed, 1 insertion(+)
create mode 100644 tryfile.txt
```

- Adding the repository as a remote

```
Super@Super-PC MINGW64 /d/GIT assignment working/Question 4/gittryrepo (master)
$ git remote add origin https://github.com/Fiza59/git-try-repository.git

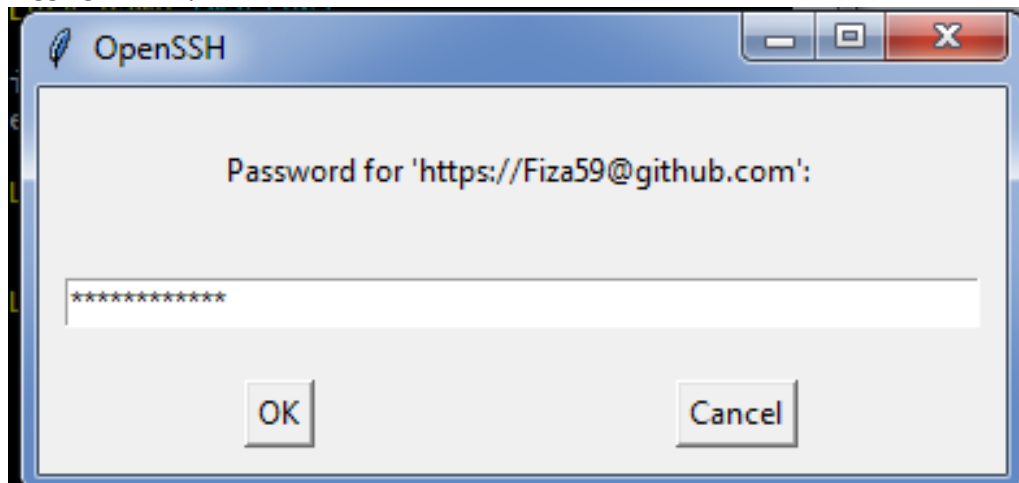
Super@Super-PC MINGW64 /d/GIT assignment working/Question 4/gittryrepo (master)
$ git remote -v
origin https://github.com/Fiza59/git-try-repository.git (fetch)
origin https://github.com/Fiza59/git-try-repository.git (push)
```

- Pushing and Pulling the origin master

```
Super@Super-PC MINGW64 /d/GIT assignment working/Question 4/gittryrepo (master)
$ git pull origin master

Super@Super-PC MINGW64 /d/GIT assignment working/Question 4/gittryrepo (master)
$ git push -u origin master
Username for 'https://github.com': fiza59
To https://github.com/Fiza59/git-try-repository.git
```

- Logging in to my GitHub account



Exercise 5:

Branching and merging

- Creating and initializing a local repository (website)

```
MINGW64:/d/Question 5/website

Super@Super-PC MINGW64 /d/Question 5
$ mkdir website

Super@Super-PC MINGW64 /d/Question 5
$ cd website

Super@Super-PC MINGW64 /d/Question 5/website
$ git init
Initialized empty Git repository in D:/Question 5/website/.git/
```

- Creating and committing a notepad file

```
Super@Super-PC MINGW64 /d/Question 5/website (master)
$ notepad index.html

Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git add index.html

Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git commit -m 'initial checkin'
[master (root-commit) 8fe749f] initial checkin
 1 file changed, 10 insertions(+)
 create mode 100644 index.html
```

- Checking current branch and introducing a new branch (contactinfo)

```
Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git branch
* master

Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git branch contactinfo

Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git branch
  contactinfo
* master

Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git checkout contactinfo
Switched to branch 'contactinfo'
```

- Again creating and committing a notepad file (index)

```
Super@Super-PC MINGW64 /d/Question 5/website (contactinfo)
$ notepad index.html

Super@Super-PC MINGW64 /d/Question 5/website (contactinfo)
$ git add index.html

Super@Super-PC MINGW64 /d/Question 5/website (contactinfo)
$ git commit -m 'add phone contact'
[contactinfo 3020594] add phone contact
 1 file changed, 2 insertions(+)
```

- Branch switching

```
MINGW64:/d/Question 5/website

Super@Super-PC MINGW64 /d/Question 5/website (contactinfo)
$ git checkout master
Switched to branch 'master'
```

- Viewing the contents of notepad file (index)

```
Super@Super-PC MINGW64 /d/Question 5/website (master)
$ cat index.html
<html>
<body>
<h1>We are open:</h1>
<ol>
<li>Monday</li>
<li>Wednesday</li>
<li>Friday</li>
</ol>
</body>
</html>
```

- Branch is switched to 'contactinfo' and notepad file is modified

```
Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git checkout contactinfo
Switched to branch 'contactinfo'

Super@Super-PC MINGW64 /d/Question 5/website (contactinfo)
$ notepad index.html

Super@Super-PC MINGW64 /d/Question 5/website (contactinfo)
$ git add index.html

Super@Super-PC MINGW64 /d/Question 5/website (contactinfo)
$ git commit -m 'add phone contact'
[contactinfo c453c68] add phone contact
1 file changed, 2 insertions(+), 1 deletion(-)
```

- Branch is switched to 'master' and notepad file is modified

```
Super@Super-PC MINGW64 /d/Question 5/website (contactinfo)
$ git checkout master
Switched to branch 'master'

Super@Super-PC MINGW64 /d/Question 5/website (master)
$ notepad index.html

Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git add index.html

Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git commit -m 'add title'
[master 268d2b0] add title
1 file changed, 4 insertions(+), 1 deletion(-)
```

- Branch check

```
MINGW64:/d/Question 5/website

Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git branch
   contactinfo
* master
```

- Branch merging

```
Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git merge contactinfo
Auto-merging index.html
unix2dos: converting file D:/Question 5/website/.git/MERGE_MSG to DOS format...
dos2unix: converting file D:/Question 5/website/.git/MERGE_MSG to Unix format...
Merge made by the 'recursive' strategy.
 index.html | 3 +++
 1 file changed, 3 insertions(+)
```

- Viewing all the contents of notepad file (index)

```
Super@Super-PC MINGW64 /d/Question 5/website (master)
$ cat index.html
<html>
<head>
<title>Achme Inc.</title>
</head>
<body>
<h1>We are open for business:</h1>
<ol>
<li>Monday</li>
<li>Wednesday</li>
<li>Friday</li>
</ol>
<p>Phone: 555-1212</p>
<p>email: customerservice@acme.com</p>
</body>
</html>
</html>
```

- Notepad file

```
index - Notepad
File Edit Format View Help
|<html>
|<head>
|<title>Achme Inc.</title>
|</head>
|<body>
|<h1>we are open for business:</h1>
|<ol>
|<li>Monday</li>
|<li>wednesday</li>
|<li>Friday</li>
|</ol>
|<p>Phone: 555-1212</p>
|<p>email: customerservice@acme.com</p>
|</body>
|</html>
|</html>
```

- Visual representation of the commits

```
Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git log --oneline --decorate --graph --all
* 1235c77 (HEAD -> master) Merge branch 'contactinfo'
| \
| * c453c68 (contactinfo) add phone contact
| * 3020594 add phone contact
* | 268d2b0 add title
|/
* 8fe749f initial checkin
```

- Deletion of branch that is not required any more

```
Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git branch -d contactinfo
Deleted branch contactinfo (was c453c68).
```

Exercise 5: (Extension)

Branching and merging with conflicts

- Reusing the already created repository and initializing it

```
MINGW64:/d/Question 5/website

Super@Super-PC MINGW64 /d/Question 5
$ cd website

Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git init
Reinitialized existing Git repository in D:/Question 5/website/.git/
```

- Modifying the notepad file

```
Super@Super-PC MINGW64 /d/Question 5/website (master)
$ notepad index.html

Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git add index.html

Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git commit -m 'initil checkin'
[master 811d57f] initil checkin
1 file changed, 2 insertions(+), 13 deletions(-)
```

- Introducing a branch 'hyperlink'

```
Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git checkout -b hyperlink
Switched to a new branch 'hyperlink'
```

- Again modifying the notepad file

```
Super@Super-PC MINGW64 /d/Question 5/website (hyperlink)
$ notepad index.html

Super@Super-PC MINGW64 /d/Question 5/website (hyperlink)
$ git add index.html

Super@Super-PC MINGW64 /d/Question 5/website (hyperlink)
$ git commit -m 'make hyperlink'
[hyperlink 35a6de5] make hyperlink
1 file changed, 3 insertions(+), 2 deletions(-)
```

- Switching to 'master' branch

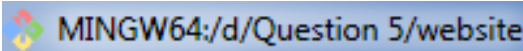
```
Super@Super-PC MINGW64 /d/Question 5/website (hyperlink)
$ git checkout master
Switched to branch 'master'
```

- Introducing a new branch 'hotfix123' and modifying notepad file

```
Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git checkout -b hotfix123
Switched to a new branch 'hotfix123'

Super@Super-PC MINGW64 /d/Question 5/website (hotfix123)
$ notepad index.html

Super@Super-PC MINGW64 /d/Question 5/website (hotfix123)
$ git add index.html
```



```
Super@Super-PC MINGW64 /d/Question 5/website (hotfix123)
$ git commit -m 'use secure protocol https'
[hotfix123 fac9bec] use secure protocol https
1 file changed, 2 insertions(+), 2 deletions(-)
```

- Switching back to 'master' branch and merging all the branches

```
Super@Super-PC MINGW64 /d/Question 5/website (hotfix123)
$ git checkout master
Switched to branch 'master'

Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git merge hotfix123
Updating 811d57f..fac9bec
Fast-forward
 index.html | 4 ++--
 1 file changed, 2 insertions(+), 2 deletions(-)
```

- Viewing commit tree

```
Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git log --oneline --decorate --graph --all
* fac9bec (HEAD -> master, hotfix123) use secure protocol https
| * 35a6de5 (hyperlink) make hyperlink
|/
* 811d57f initil checkin
* 1235c77 Merge branch 'contactinfo'
| \
| * c453c68 add phone contact
| * 3020594 add phone contact
* | 268d2b0 add title
|/
* 8fe749f initial checkin
```

- We can force commit if required

```
Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git merge --no-ff hotfix123
Already up-to-date.
```

- Deleting the branch that is no more required

```
Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git branch -d hotfix123
Deleted branch hotfix123 (was fac9bec).
```

- Merging the branch 'hyperlink'

```
MINGW64:/d/Question 5/website

Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git merge hyperlink
Auto-merging index.html
CONFLICT (content): Merge conflict in index.html
Automatic merge failed; fix conflicts and then commit the result.
```


- Status check

```
Super@Super-PC MINGW64 /d/Question 5/website (master|MERGING)
$ git status
On branch master
You have unmerged paths.
  (fix conflicts and run "git commit")
  (use "git merge --abort" to abort the merge)

Unmerged paths:
  (use "git add <file>..." to mark resolution)

        both modified:   index.html

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

- Viewing contents of notepad file

```
Super@Super-PC MINGW64 /d/Question 5/website (master|MERGING)
$ cat index.html
<html>
<body>
<<<<<<< HEAD
<p>This web page has moved to: https://achme.com/retail/ </p>
=====
<p>This web page has moved to: <a
href=http://achme.com/retail/>http://achme.com/retail/ </a> </p>
>>>>>>> hyperlink
</body>
</html>
```

- Modification of notepad file

```
Super@Super-PC MINGW64 /d/Question 5/website (master|MERGING)
$ notepad index.html

Super@Super-PC MINGW64 /d/Question 5/website (master|MERGING)
$ git add index.html

Super@Super-PC MINGW64 /d/Question 5/website (master|MERGING)
$ git commit -m 'make link clickable and https'
[master 1a1a6ab] make link clickable and https
```

- Viewing result of merging

```
Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git log --oneline --decorate --graph --all
* 1a1a6ab (HEAD -> master) make link clickable and https
| \
| * 35a6de5 (hyperlink) make hyperlink
* | fac9bec use secure protocol https
|/
* 811d57f initil checkin
* 1235c77 Merge branch 'contactinfo'
| \
| * c453c68 add phone contact
| * 3020594 add phone contact
* | 268d2b0 add title
|/
* 8fe749f initial checkin
```

- Deleting branch 'hyperlink'

```
Super@Super-PC MINGW64 /d/Question 5/website (master)
$ git branch -d hyperlink
Deleted branch hyperlink (was 35a6de5).
```

Following are the screenshots of modifications done in notepad files time to time in above exercise

```
index - Notepad
File Edit Format View Help
<html>
<head>
<title>Achme Inc.</title>
</head>
<body>
<h1>we are open for business:</h1>
<ol>
<li>Monday</li>
<li>Wednesday</li>
<li>Friday</li>
</ol>
<p>Phone: 555-1212</p>
<p>email: customerservice@acme.com</p>
</body>
</html>
</html>
```

```
index - Notepad
File Edit Format View Help
<html>
<body>
<p>This web page has moved to: http://achme.com/retail/
</p> </body>
</html>
```

```
index - Notepad
File Edit Format View Help
<html>
<body>
<p>This web page has moved to: <a
href="http://achme.com/retail/">http://achme.com/retail/ </a> </p>
</body>
</html>
```

Merge message file :

```
MERGE_MSG - Notepad
File Edit Format View Help
Merge branch 'contactinfo'

# Please enter a commit message to explain why this merge is necessary,
# especially if it merges an updated upstream into a topic branch.
#
# Lines starting with '#' will be ignored, and an empty message aborts
# the commit.
```

Exercise 6:

Branching and remotes

- Initializing a new repository

```
MINGW64:/d/GIT assignment working/Question 6/teamrepo/teamrepo

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6
$ git init
Initialized empty Git repository in D:/GIT assignment working/Question 6/.git/
```

- Proceedings according to instruction

```
Super@Super-PC MINGW64 /d/GIT assignment working/Question 6 (master)
$ git remote

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6 (master)
$ git remote -v

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6 (master)
$ git remote add upstream https://github.com/Fiza59/git-try-repository.git
```

- Introducing branch and cloning repository

```
Super@Super-PC MINGW64 /d/GIT assignment working/Question 6 (master)
$ git branch -r

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6 (master)
$ git clone https://github.com/Fiza59/teamrepo.git
Cloning into 'teamrepo'...
remote: Counting objects: 3, done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6 (master)
$ cd teamrepo

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo (master)
$ git branch -r
  origin/HEAD -> origin/master
  origin/master

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo (master)
$ git clone https://github.com/Fiza59/teamrepo.git teamrepo
Cloning into 'teamrepo'...
remote: Counting objects: 3, done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
```

- Changing directory and introducing new branch 'fix123'

```
Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo (master)
$ cd teamrepo

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ git checkout -b fix123
Switched to a new branch 'fix123'
```

- Further proceedings according to instructions

```
MINGW64:/d/GIT assignment working/Question 6/teamrepo/teamrepo

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (fix123)
$ notepad file.c

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (fix123)
$ git checkout master
Switched to branch 'master'
Your branch is up-to-date with 'origin/master'.

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ git push
Username for 'https://github.com': fiza59
Everything up-to-date

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ git push origin fix123
Username for 'https://github.com': fiza59
mefiza153159Total 0 (delta 0), reused 0 (delta 0)
To https://github.com/Fiza59/teamrepo.git
 * [new branch]      fix123 -> fix123
```

```
Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ cd https://github.com/Fiza59/teamrepo
bash: cd: https://github.com/Fiza59/teamrepo: No such file or directory

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ git branch -r
  origin/HEAD -> origin/master
  origin/fix123
  origin/master

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ git fetch origin
```

```
Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ git branch -r
  origin/HEAD -> origin/master
  origin/fix123
  origin/master
```

- Notepad modification

```
Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ notepad file.c

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ git add .

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ git commit -m 'other developer from line 3'
[master 5cce2f3] other developer from line 3
1 file changed, 2 insertions(+)
create mode 100644 file.c
```

- Pushing repository

```
Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ git push
Username for 'https://github.com': fiza59
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 306 bytes | 76.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/Fiza59/teamrepo.git
d4c2187..5cce2f3 master -> master
```

- Further working

```
Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ git fetch

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ git log --oneline origin/fix123
fatal: unrecognized argument: --oneline

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ git log --oneline origin/fix123
d4c2187 (origin/fix123, fix123) Initial commit

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ git log --oneline
5cce2f3 (HEAD -> master, origin/master, origin/HEAD) other developer from line 3
d4c2187 (origin/fix123, fix123) Initial commit

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ git diff fix123 origin/fix123



Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ git merge origin/fix123
Already up-to-date.

Super@Super-PC MINGW64 /d/GIT assignment working/Question 6/teamrepo/teamrepo (master)
$ git remote show origin
* remote origin
  Fetch URL: https://github.com/Fiza59/teamrepo.git
  Push URL: https://github.com/Fiza59/teamrepo.git
  HEAD branch: master
  Remote branches:
    fix123 tracked
    master tracked
  Local branch configured for 'git pull':
    master merges with remote master
  Local refs configured for 'git push':
    fix123 pushes to fix123 (up to date)
    master pushes to master (up to date)
```

Repository for this exercise :

GitHub, Inc. [US] | https://github.com/Fiza59/teamrepo

Papa's Taco Mia! | FrePapa's Pancakeria HoMyScrapNook

 This repository Search Pull requests Issues Marketplace Explore + 

Fiza59 / teamrepo

Watch 0 Star 0 Fork 0

<> Code

Issues 0

Pull requests 0

Projects 0

Wiki

Settings

Insights

for learning purpose

Edit

Add topics

1 commit

1 branch

0 releases

1 contributor

Branch: master

New pull request

Create new file

Upload files

Find file

Clone or download

Fiza59 committed on GitHub Initial commit

Latest commit d4c2187 just now

README.md

Initial commit

just now

README.md

teamrepo

for learning purpose