

Git with Grit

A virtual training series on the fundamentals of Git and Github

 **7:00 PM – 8:00 PM | (GMT+ 6:00)**

 **16th , 18th , 19th February, 2021**



Organized By



Partnered With



Git with Grit

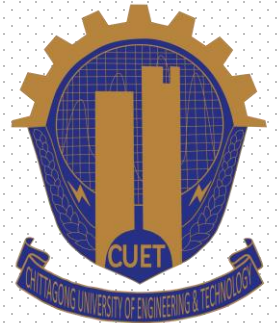


A virtual training series on the fundamentals of Git and Github



Mohammad Iftekher Ebne Jalal (Iftu)

Microsoft Learn Student Ambassador
Undergrad Student,
Department of Electrical and Electronic Engineering,
Chittagong University of Engineering and Technology (CUET)





Git with Grit

A virtual training series on the fundamentals of Git and Github

DAY-2



working directory



This is where we work on our files and they **remain untracked**. If we change files here, git will recognize that they are modified, but until we tell git “Hey! pay attention to these files,” **it won’t save anything that goes on in them.**

staging area

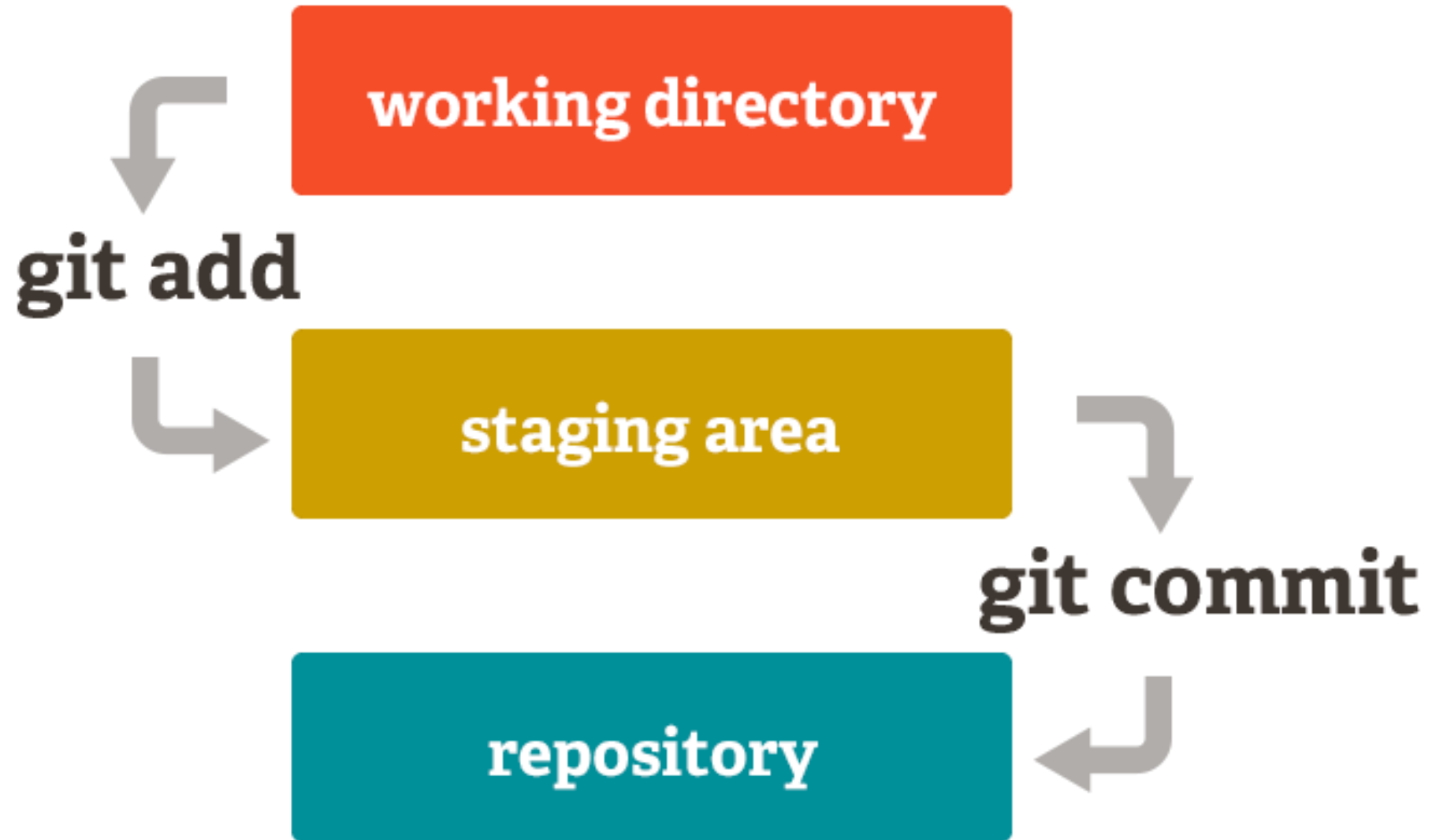


Git **starts tracking and saving changes**. We tell git that we want to track these specific files, then git says okay and moves them from you Working Tree to the Staging Area and says “Cool, I know about this file in its entirety.”

repository



Takes all changes from the Staging Area, wraps them together and puts them in the Local Repository. A commit is simply a **checkpoint telling git to track all changes that have occurred up to this point** using our last commit as a comparison.



git config --global

git add

git commit

git diff

git log

git rm

git status

git show

BRANCH

- **Head (Pre Branch)**
- **Overview**
- **Create Branch**
- **Naming**
- **See Branch list**
- **Switch Branch**
- **Create and Switch in one command**
- **Compare branches**
- **Delete branch**
- **Merge**
 - Merge Command
 - Fast forward and True Merge

HEAD



```
er@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Playground (master)
git log --oneline
1dad9b (HEAD -> master) Mem Del
cf07b0c Memory added
8dbe755 Credit added
27f9896 calculator Initiated
```

Let's see this from BASH



↑
Head

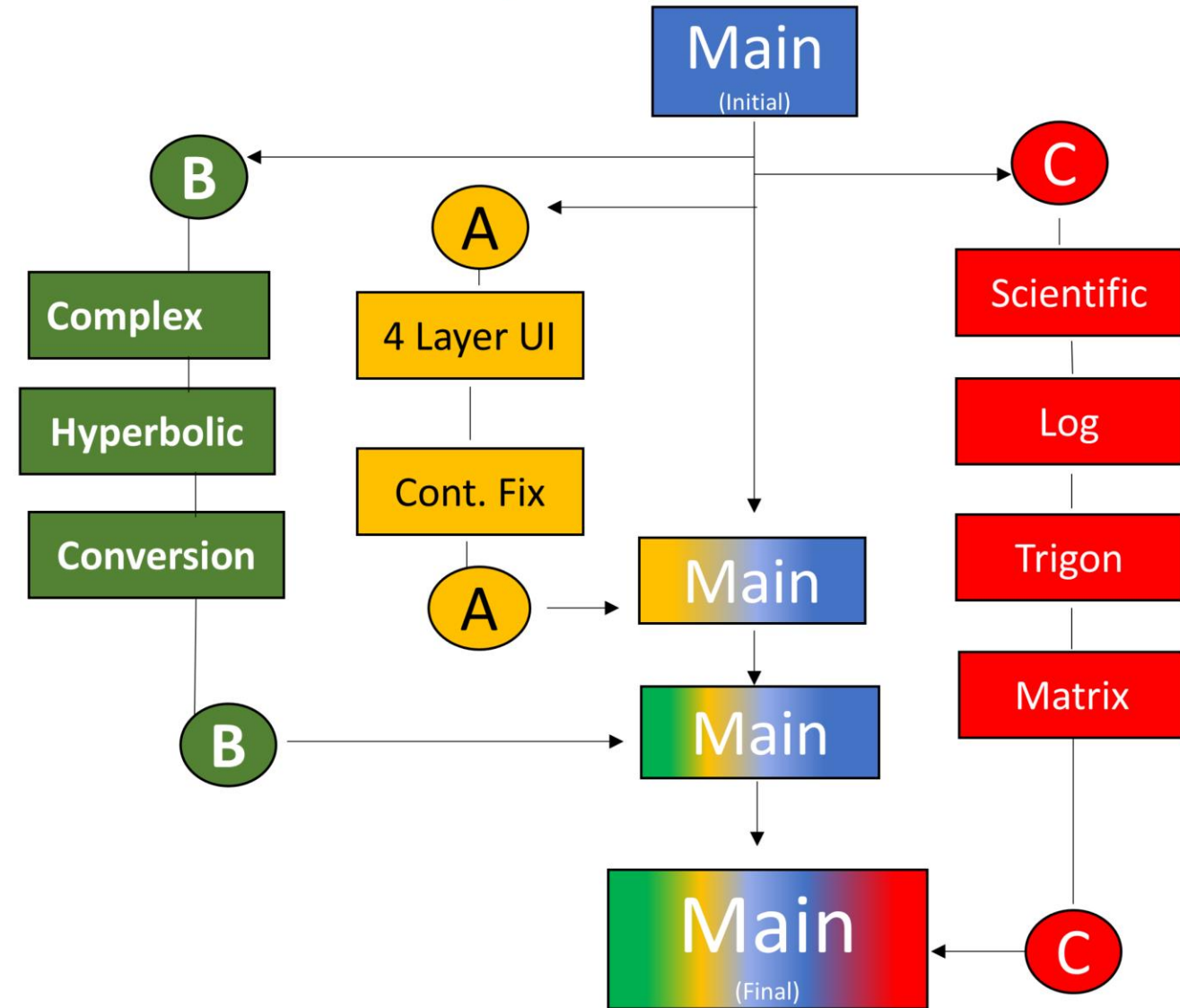
Overview

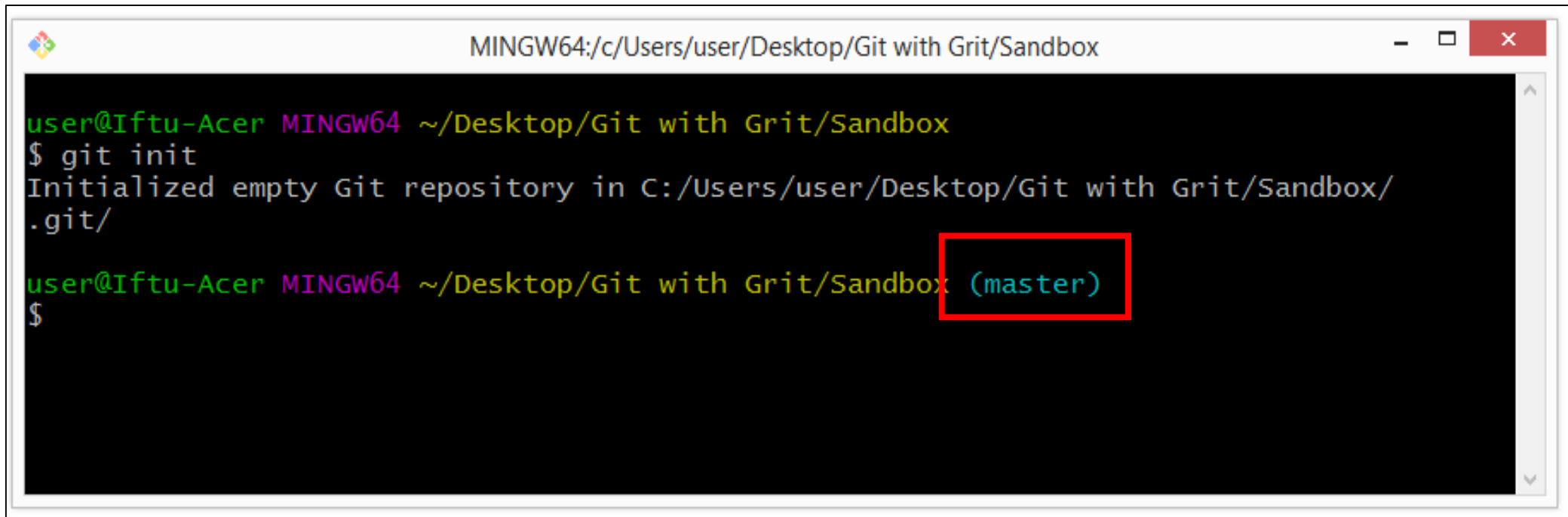
<https://learngitbranching.js.org/?NODEMO>

Make the Smart Choice !



Vs.





A screenshot of a Windows command prompt window titled "MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox". The window has a standard Windows title bar with minimize, maximize, and close buttons. The command prompt shows the following text:

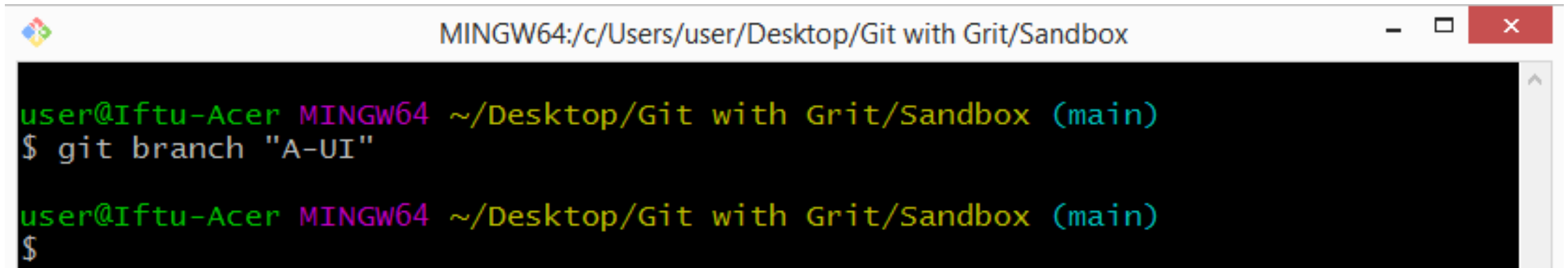
```
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox
$ git init
Initialized empty Git repository in C:/Users/user/Desktop/Git with Grit/Sandbox/.git/
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (master)
$
```

The text "(master)" is highlighted with a red rectangular box.

So, the earlier day, we were on a branch named **MASTER**

Creating New Branch named A-UI

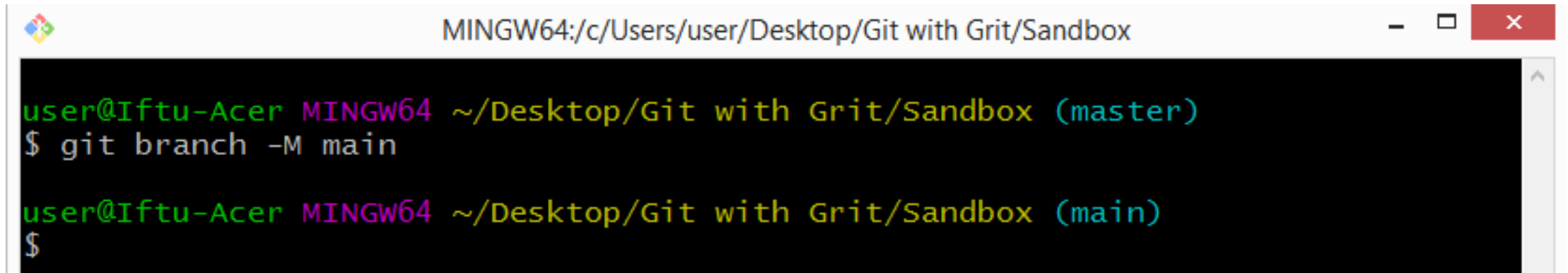
```
$ git branch "Br Name"
```

A screenshot of a Windows terminal window. The title bar shows the path 'MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox'. The terminal content shows a user at 'Iftu-Acer' in a 'MINGW64' environment, currently on the 'main' branch at the directory '~/Desktop/Git with Grit/Sandbox'. The user enters the command 'git branch "A-UI"', and the prompt returns to the shell.

```
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git branch "A-UI"
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$
```

Let's rename Master to MAIN

```
$ git branch -M main
```

A screenshot of a Windows terminal window titled "MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox". The terminal shows a user prompt "user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (master)" followed by the command "\$ git branch -M main". The next line shows the prompt "user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)" and a new "\$" prompt, indicating the command was successful.

```
MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox

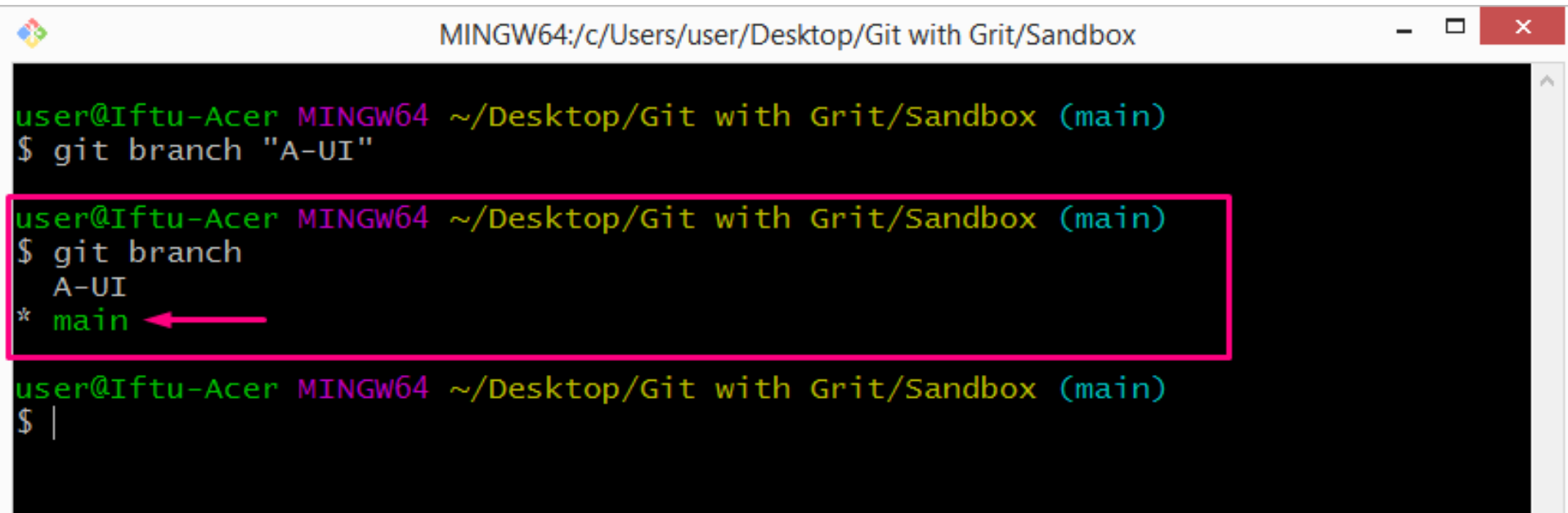
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (master)
$ git branch -M main

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$
```

This renaming is done as a part of an adoption by GitHub from October 1st,2020 .
"Main" is the default branch name in GitHub
<https://github.com/github/renaming>

See the list of all branches

\$ git branch

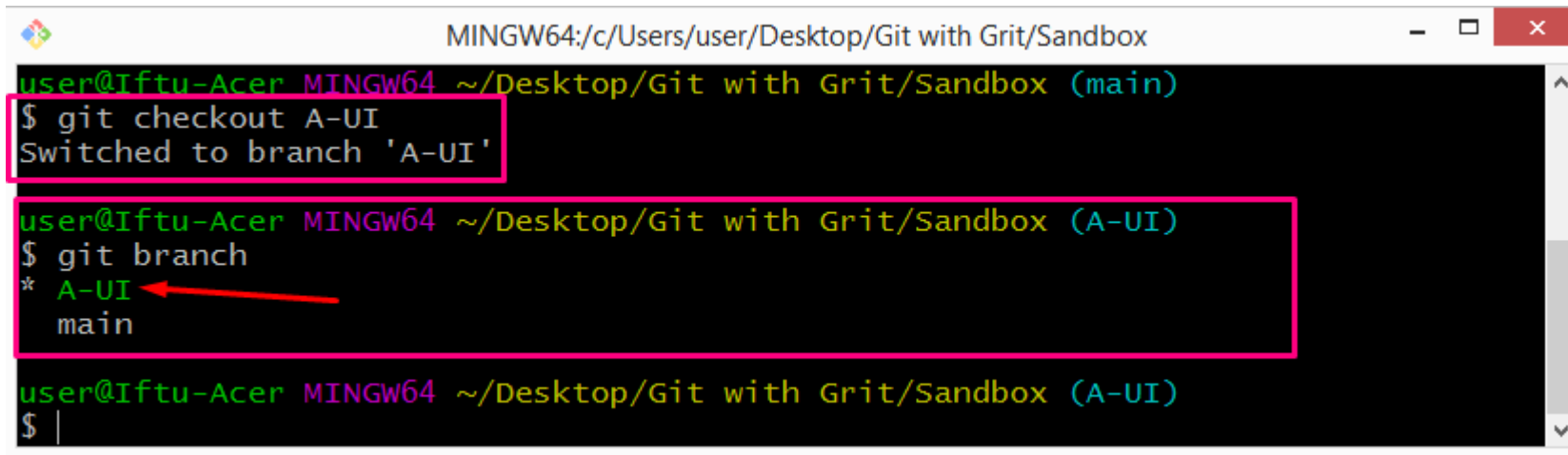
A screenshot of a Windows terminal window titled "MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox". The terminal shows a user at the prompt "user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)" entering the command "\$ git branch". The output is "A-UI" and "* main", where "A-UI" is on the first line and "* main" is on the second line. A pink rectangular box highlights the output, and a pink arrow points to the asterisk on the second line. Below the highlighted output, the prompt "\$ |" is visible.

```
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git branch "A-UI"
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git branch
  A-UI
* main
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ |
```

Asterisk (*) indicate the current branch

Going to other Branches

\$ git checkout “Branch Name”

A screenshot of a Windows terminal window titled "MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox". The terminal shows a user switching to a new branch. The first command is "\$ git checkout A-UI", which results in "Switched to branch 'A-UI'". The second command is "\$ git branch", which lists the branches: "* A-UI" and "main". A red arrow points to the asterisk next to "A-UI". The terminal window has a black background with green and yellow text. There are pink rectangular highlights around the first command and its output, and the second command and its output. The window has standard Windows window controls (minimize, maximize, close) in the top right corner.

```
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git checkout A-UI
Switched to branch 'A-UI'

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)
$ git branch
* A-UI
  main

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)
$ |
```

Asterisk (*) indicating the A-UI branch
Also have a look at the bracket (A-UI)

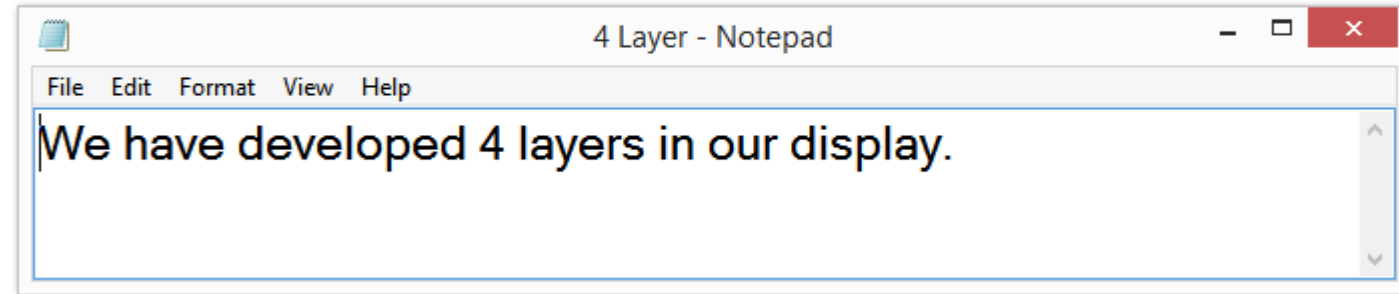
**Branch creation and checkout
can be done with just 1 command**

```
$ git checkout -b "Branch Name"
```

Let's Work on
other branch

File added

4 Layer	Text Document	1 KB
Calculator Basic	Text Document	1 KB



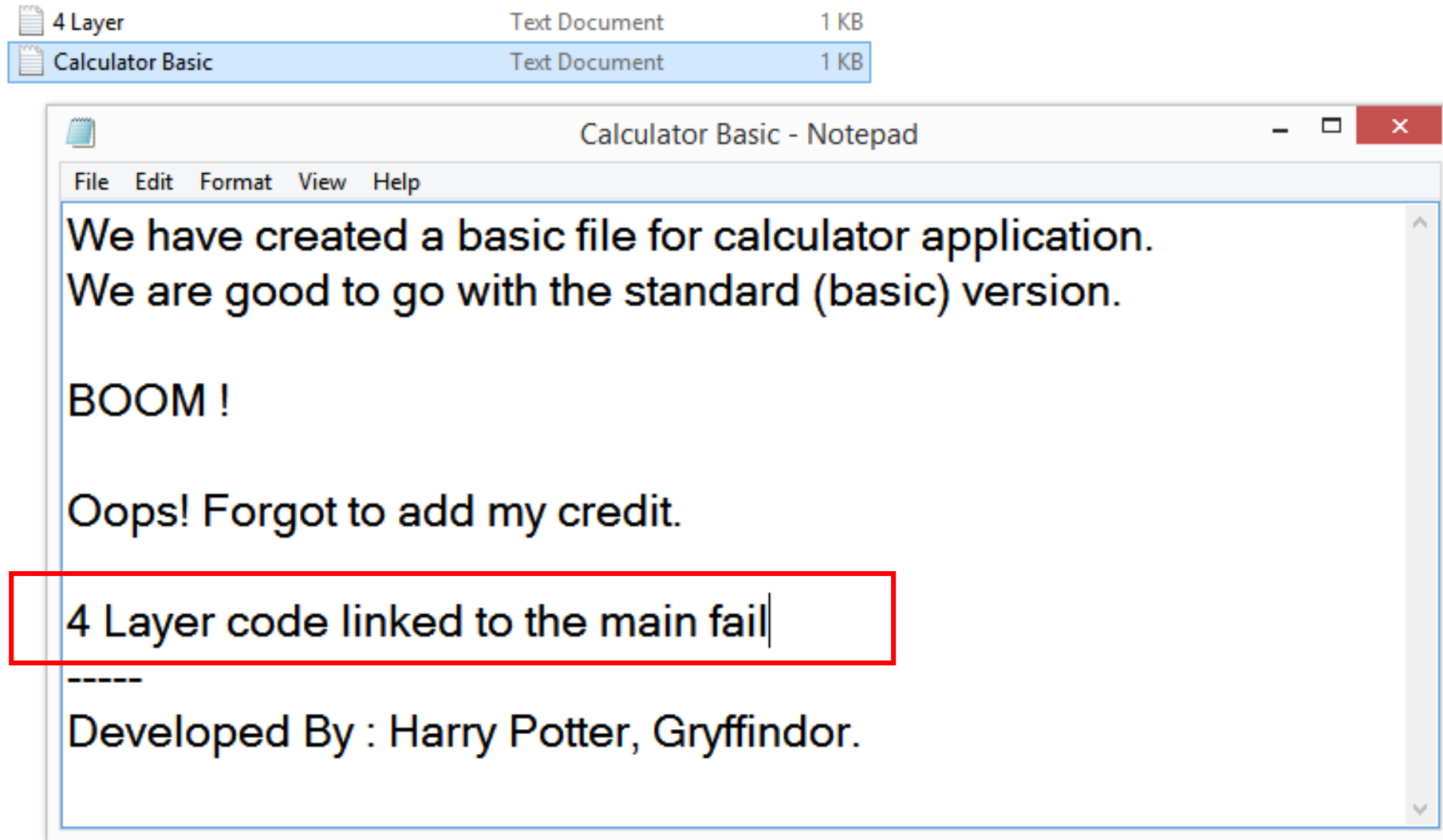
4 Layer	Text Document	1 KB
Calculator Basic	Text Document	1 KB

```
$ git add .  
$ git commit
```



A screenshot of a terminal window titled "MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox". The terminal shows the following commands and output:

```
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)  
$ git add .  
  
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)  
$ git commit -m "4 Layers added"  
[A-UI 17d06d2] 4 Layers added  
1 file changed, 1 insertion(+)  
create mode 100644 4 Layer.txt  
  
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)  
$ |
```

Edited the file from MAIN branch , here in the A-UI Branch



\$ git status



 4 Layer	Text Document	1 KB
 Calculator Basic	Text Document	1 KB

```
MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)
$ git status
On branch A-UI
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:   Calculator Basic.txt

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

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)
$ |
```

 4 Layer	Text Document	1 KB
 Calculator Basic	Text Document	1 KB

\$ git add .
\$ git commit

```
MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox

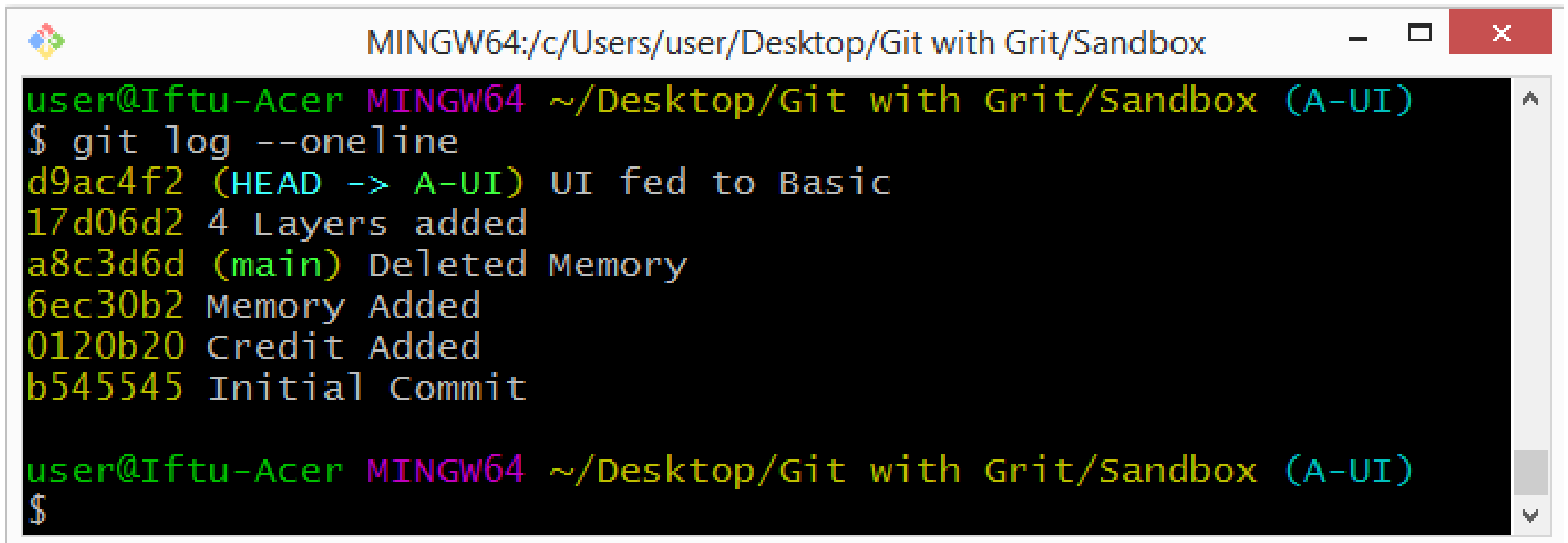
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)
$ git add .

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)
$ git commit -m "UI fed to Basic"
[A-UI d9ac4f2] UI fed to Basic
1 file changed, 2 insertions(+)

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)
$ |
```

Let's see the history

```
$ git log --oneline
```

A screenshot of a Windows terminal window titled "MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox". The terminal shows the command "git log --oneline" and its output, which lists six commits in reverse chronological order. The output is color-coded: commit hashes are yellow, branch names in parentheses are cyan, and commit messages are white. The commits are: "d9ac4f2 (HEAD -> A-UI) UI fed to Basic", "17d06d2 4 Layers added", "a8c3d6d (main) Deleted Memory", "6ec30b2 Memory Added", "0120b20 Credit Added", and "b545545 Initial Commit". The prompt "user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)" is shown at the top and bottom of the terminal output.

```
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)
$ git log --oneline
d9ac4f2 (HEAD -> A-UI) UI fed to Basic
17d06d2 4 Layers added
a8c3d6d (main) Deleted Memory
6ec30b2 Memory Added
0120b20 Credit Added
b545545 Initial Commit

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)
$
```

Name	Type	Size
 Calculator Basic	Text Document	1 KB

```
MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)
$ git log --oneline
d9ac4f2 (HEAD -> A-UI) UI fed to Basic
17d06d2 4 Layers added
a8c3d6d (main) Deleted Memory
6ec30b2 Memory Added
0120b20 Credit Added
b545545 Initial Commit

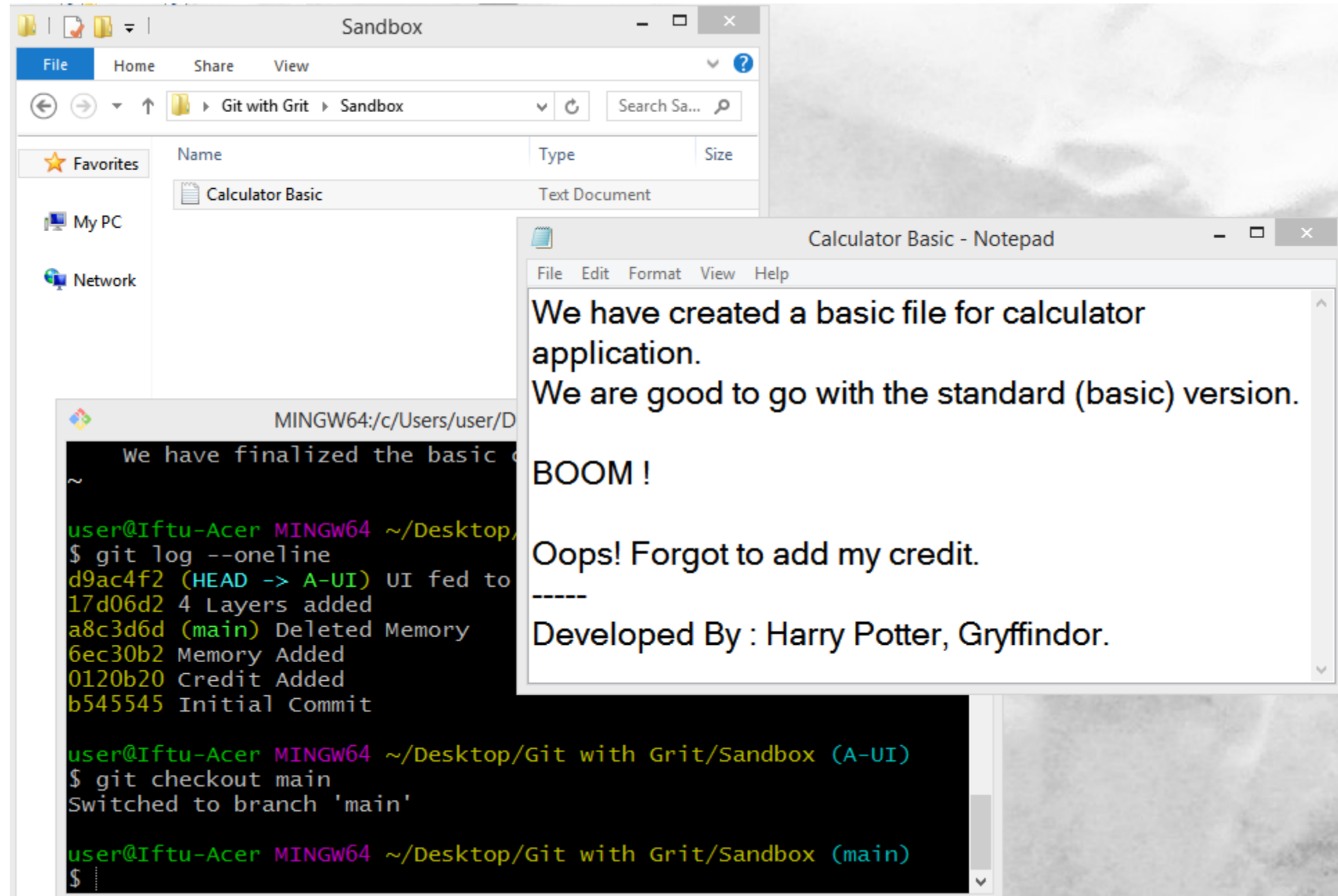
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)
$ git checkout main
Switched to branch 'main'

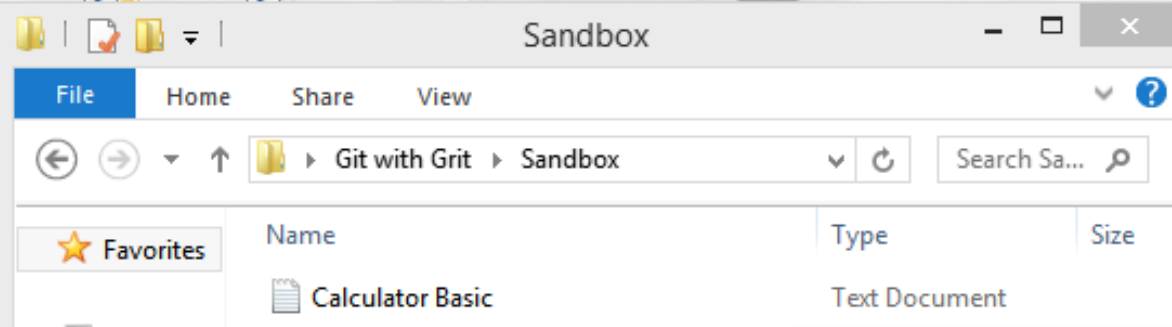
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$
```

The moment we checked out to MAIN branch that "4 Layer.txt" of A-UI branch disappeared

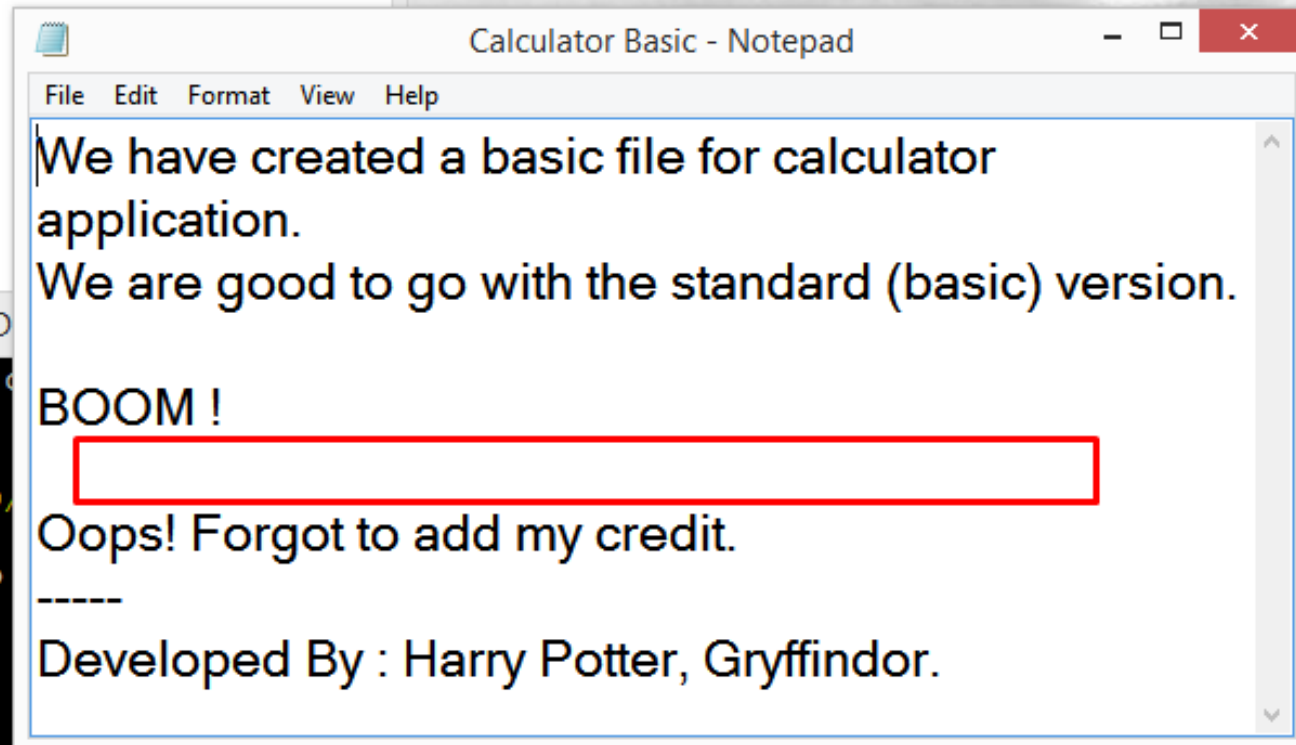
That edit
disappeared as
well.
Why not ?

We edited in the
A-UI branch, not
in the **main**.





4 Layer?



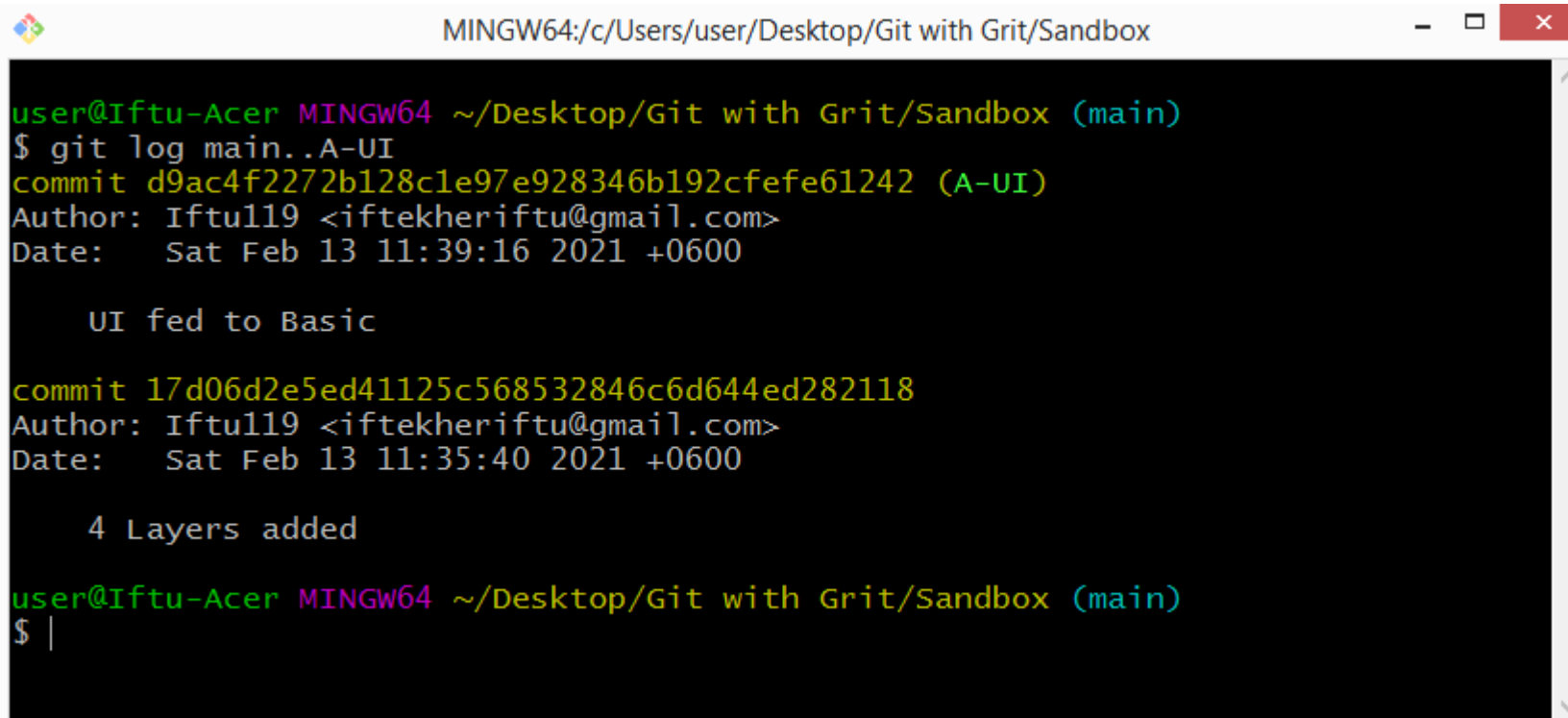
```
MINGW64:/c/Users/user/D
We have finalized the basic
~
user@Iftu-Acer MINGW64 ~/Desktop/
$ git log --oneline
d9ac4f2 (HEAD -> A-UI) UI fed to
17d06d2 4 Layers added
a8c3d6d (main) Deleted Memory
6ec30b2 Memory Added
0120b20 Credit Added
b545545 Initial Commit

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)
$ git checkout main
Switched to branch 'main'

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ .....
```

Let's see all the commits made after we went to A-UI earlier

```
$ git log main..A-UI
```

A screenshot of a terminal window titled "MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox". The terminal shows the command "git log main..A-UI" and its output. The output lists two commits: the first commit (d9ac4f2272b128c1e97e928346b192cfefe61242) titled "(A-UI)" with the message "UI fed to Basic", and the second commit (17d06d2e5ed41125c568532846c6d644ed282118) with the message "4 Layers added". The terminal also shows the user's prompt and the current directory path.

```
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git log main..A-UI
commit d9ac4f2272b128c1e97e928346b192cfefe61242 (A-UI)
Author: Iftu119 <iftekherriftu@gmail.com>
Date: Sat Feb 13 11:39:16 2021 +0600

    UI fed to Basic

commit 17d06d2e5ed41125c568532846c6d644ed282118
Author: Iftu119 <iftekherriftu@gmail.com>
Date: Sat Feb 13 11:35:40 2021 +0600

    4 Layers added

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ |
```

Commits that are on **A-UI** , but not in **main**.

Let's explore the differences between the branches

```
$ git diff main..A-UI
```

```
MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox
user@Iftu Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git diff main..A-UI
diff --git a/4 Layer.txt b/4 Layer.txt
new file mode 100644
index 0000000..e377639
--- /dev/null
+++ b/4 Layer.txt
@@ -0,0 +1 @@
+We have developed 4 layers in our display.
\ No newline at end of file
diff --git a/Calculator Basic.txt b/Calculator Basic.txt
index 78f8959..67c4ddf 100644
--- a/Calculator Basic.txt
+++ b/Calculator Basic.txt
@@ -4,5 +4,7 @@ We are good to go with the standard (basic) version.
BOOM !

Oops! Forgot to add my credit.
+
:...skipping...
diff --git a/4 Layer.txt b/4 Layer.txt
new file mode 100644
index 0000000..e377639
--- /dev/null
+++ b/4 Layer.txt
@@ -0,0 +1 @@
+We have developed 4 layers in our display.
\ No newline at end of file
diff --git a/Calculator Basic.txt b/Calculator Basic.txt
index 78f8959..67c4ddf 100644
--- a/Calculator Basic.txt
+++ b/Calculator Basic.txt
@@ -4,5 +4,7 @@ We are good to go with the standard (basic) version.
BOOM !

Oops! Forgot to add my credit.
+
-4 Layer code linked to the main fail
```

During editing, I wrote "fail" instead of "file".
Sorry for the Spelling error

Create another branch

Calculator Basic

Text Document

1 KB

```
MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git branch "B-Complx"

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git branch
  A-UI
  B-Complx
* main




user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git checkout B-Complx
Switched to branch 'B-Complx'

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (B-Complx)
$ git branch
  A-UI
* B-Complx
  main

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (B-Complx)
$ |
```

Bringing
Changes
in the new
branch

"B-Complx"

 Hyperbolic Function	Text Document	1 KB
 Complex	Text Document	1 KB
 Calculator Basic	Text Document	1 KB

Hyperbolic Function - Notepad

File Edit Format View Help

Hyperbolic operations added

Complex - Notepad

File Edit Format View Help

Complex Function Added here

MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox

```
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (B-Complx)
$ git status
On branch B-Complx
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    Complex.txt
    Hyperbolic Function.txt

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

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (B-Complx)
$
```

 Hyperbolic Function	Text Document	1 KB
 Complex	Text Document	1 KB
 Calculator Basic	Text Document	1 KB

Hyperbolic Function - Notepad

File Edit Format View Help

Hyperbolic operations added

Complex - Notepad

File Edit Format View Help

Complex Function Added here

MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox

```
to track)

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (B-Comp1x)
$ git add .

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (B-Comp1x)
$ git commit -m "Complex Initial Commit"
[B-Comp1x 52403ba] Complex Initial Commit
2 files changed, 2 insertions(+)
create mode 100644 Complex.txt
create mode 100644 Hyperbolic Function.txt

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (B-Comp1x)
$
```

\$ git diff main..B-Comp1x

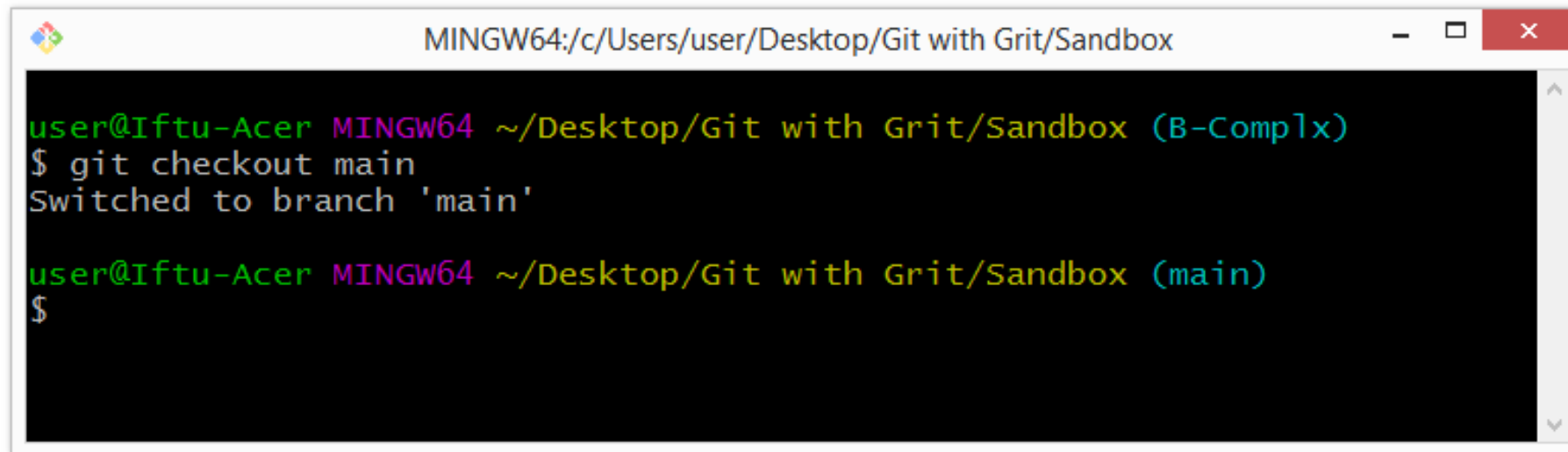
Hyperbolic Function	Text Document	1 KB
Complex	Text Document	1 KB
Calculator Basic	Text Document	1 KB

```
MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (B-Comp1x)
$ git diff main..B-Comp1x
diff --git a/Complex.txt b/Complex.txt
new file mode 100644
index 0000000..e7edd82
--- /dev/null
+++ b/Complex.txt
@@ -0,0 +1 @@
+Complex Function Added here
\ No newline at end of file
diff --git a/Hyperbolic Function.txt b/Hyperbolic Function.txt
new file mode 100644
index 0000000..17e6dac
--- /dev/null
+++ b/Hyperbolic Function.txt
@@ -0,0 +1 @@
+Hyperbolic operations added
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (B-Comp1x)
$
```


Calculator Basic

Text Document

1 KB



A screenshot of a Windows terminal window. The title bar reads "MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox". The terminal content shows a user switching from the "B-Complex" branch to the "main" branch using the command "git checkout main". The prompt changes from "(B-Complex)" to "(main)".

```
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (B-Complex)
$ git checkout main
Switched to branch 'main'

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$
```

Our works from that **B-Complex** branch disappeared when we switched to **main** branch

Time to

MERGE

the branches

Fast forward vs True Merge

Main

5LGGE6

F6VDG

GG2GE



Branch A

F6VDG

Fast forward

Main

5LGGE6

F6VDG

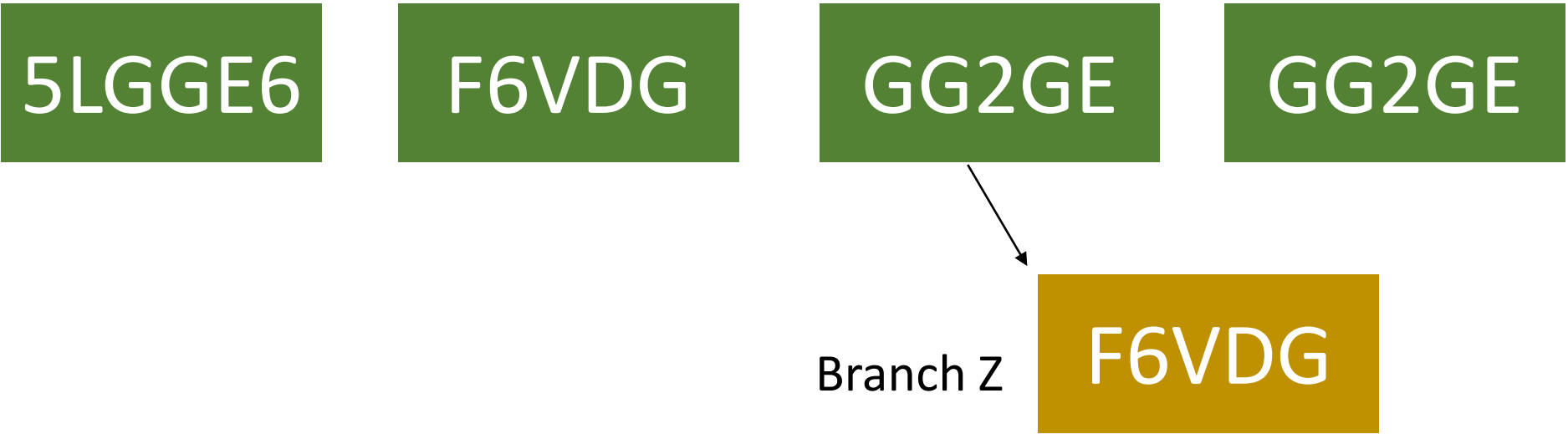
GG2GE

F6VDG

Branch A

True Merge

Main



True Merge

Main

5LGGE6

F6VDG

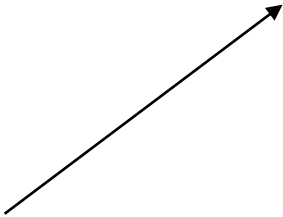
GG2GE

GG2GE

FF69D

Branch Z

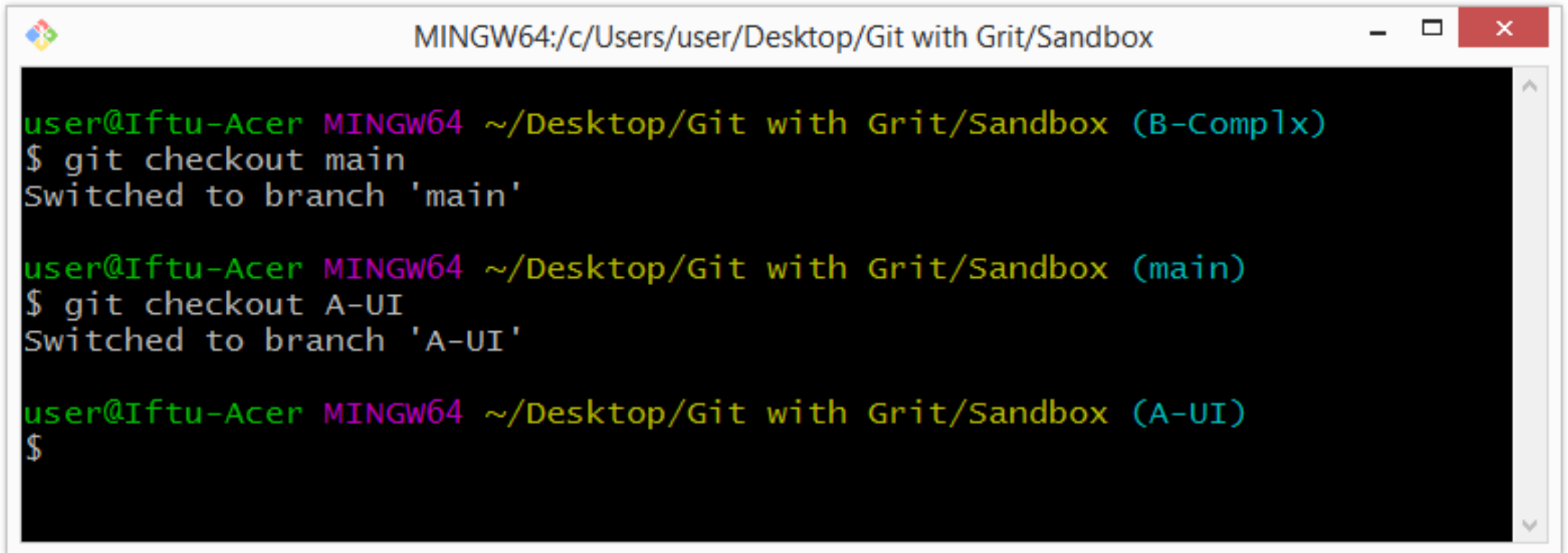
F6VDG



We will merge **A-UI** to the **main**.

So we need to be on the **main** in order merge into the **main**

 4 Layer	Text Document	1 KB
 Calculator Basic	Text Document	1 KB



```
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (B-Comp1x)
$ git checkout main
Switched to branch 'main'

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git checkout A-UI
Switched to branch 'A-UI'

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)
$
```

\$ git merge A-UI

4 Layer

Text Document

1 KB

Calculator Basic

Text Document

1 KB

```
MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)
$ git checkout main
Switched to branch 'main'

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git merge A-UI
Updating a8c3d6d..d9ac4f2
Fast-forward
 4 Layer.txt          | 1 +
 Calculator Basic.txt | 2 ++
 2 files changed, 3 insertions(+)
 create mode 100644 4 Layer.txt

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$
```


Did you notice the appearance of "4 Layer.txt" file ?



 4 Layer	Text Document	1 KB
 Calculator Basic	Text Document	1 KB

```
MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox

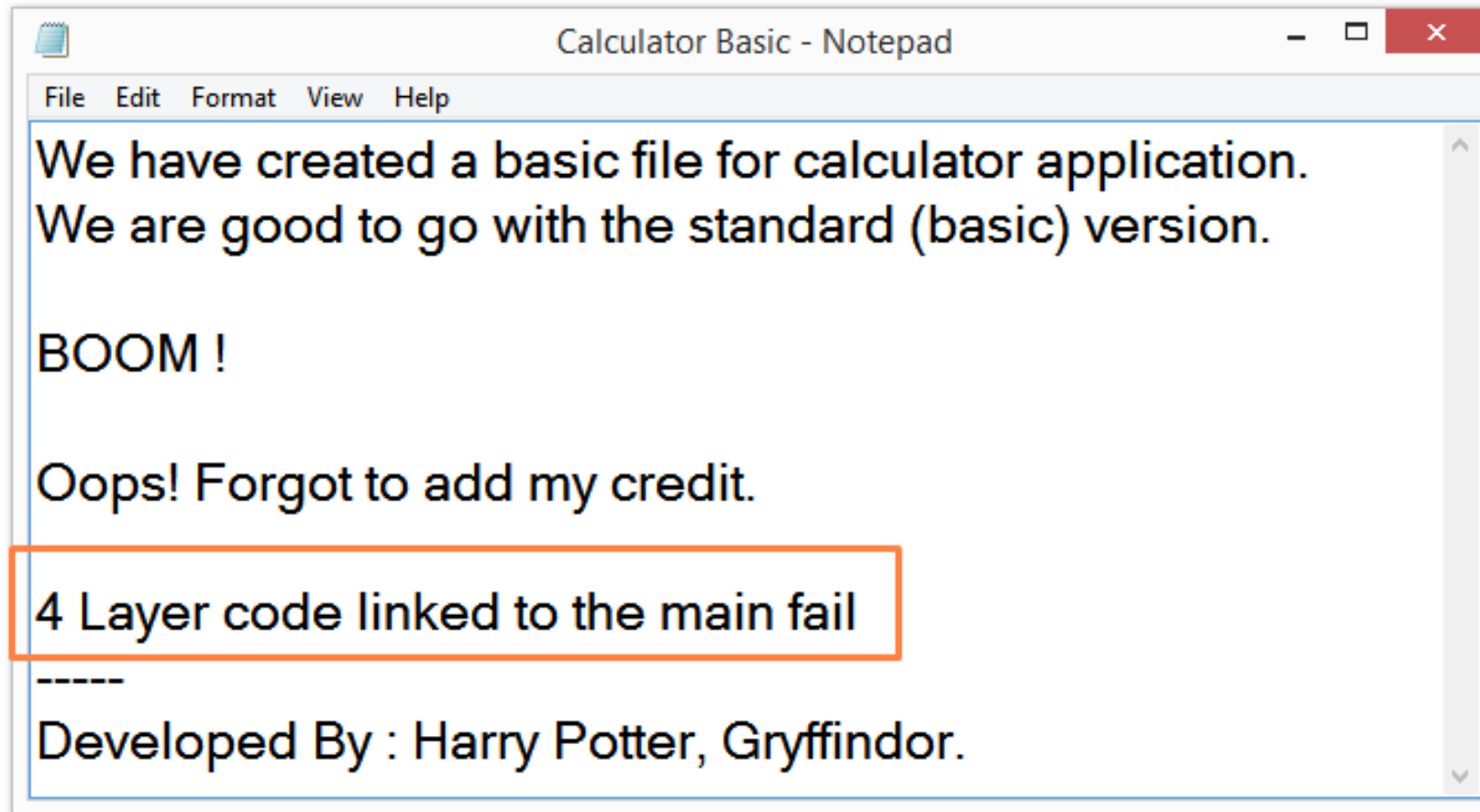
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (A-UI)
$ git checkout main
Switched to branch 'main'

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git merge A-UI
Updating a8c3d6d..d9ac4f2
Fast-forward
 4 Layer.txt      | 1 +
 Calculator Basic.txt | 2 ++
 2 files changed, 3 insertions(+)
 create mode 100644 4 Layer.txt


user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$
```

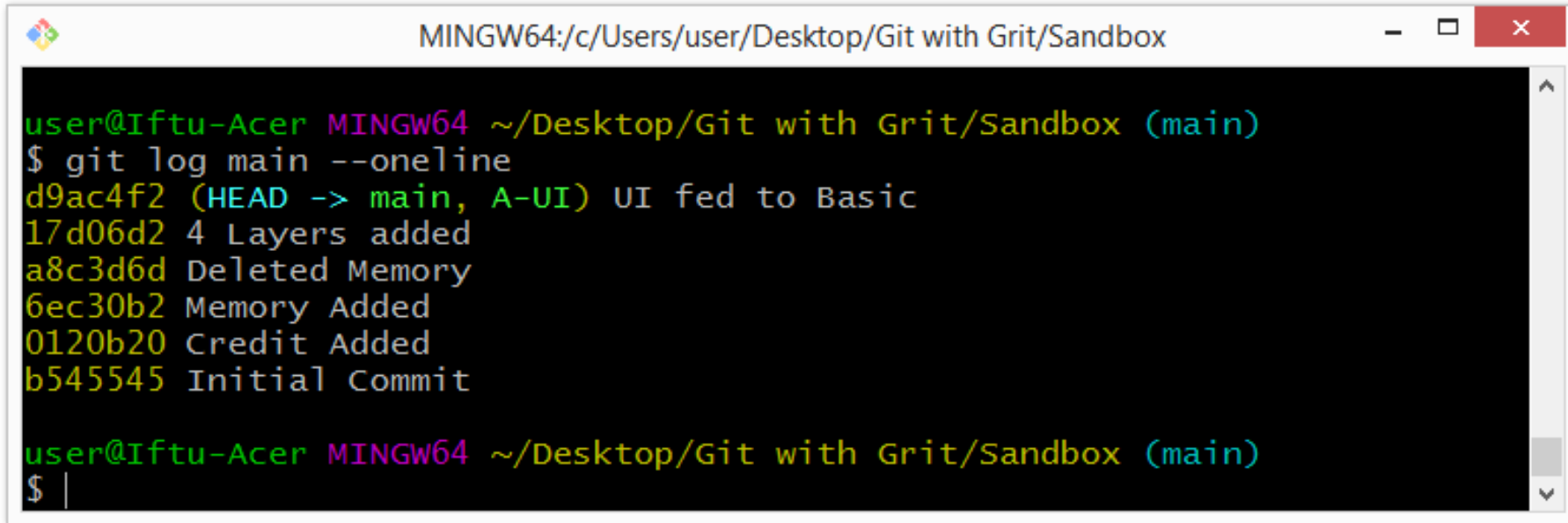
Changes merged as well

 4 Layer	Text Document	1 KB
 Calculator Basic	Text Document	1 KB



What about the LOG now ?

 4 Layer	Text Document	1 KB
 Calculator Basic	Text Document	1 KB



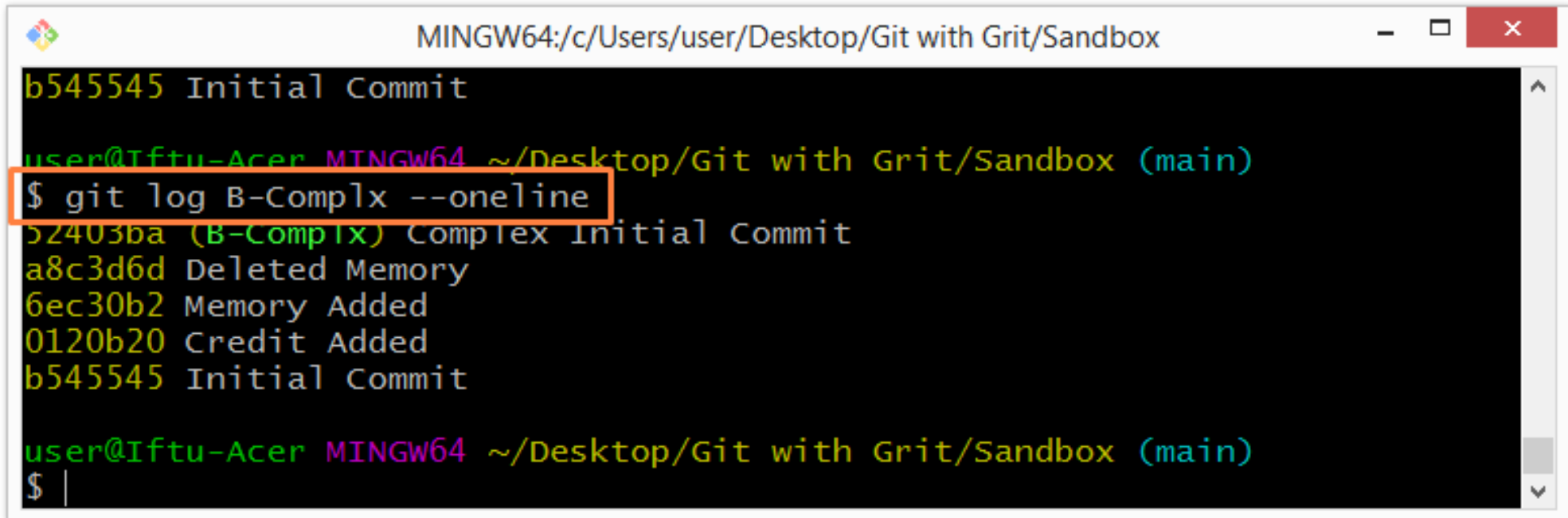
```
MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git log main --oneline
d9ac4f2 (HEAD -> main, A-UI) UI fed to Basic
17d06d2 4 Layers added
a8c3d6d Deleted Memory
6ec30b2 Memory Added
0120b20 Credit Added
b545545 Initial Commit

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ |
```

Let's see the left out branch

```
$ git log B-Comp1x --oneline
```

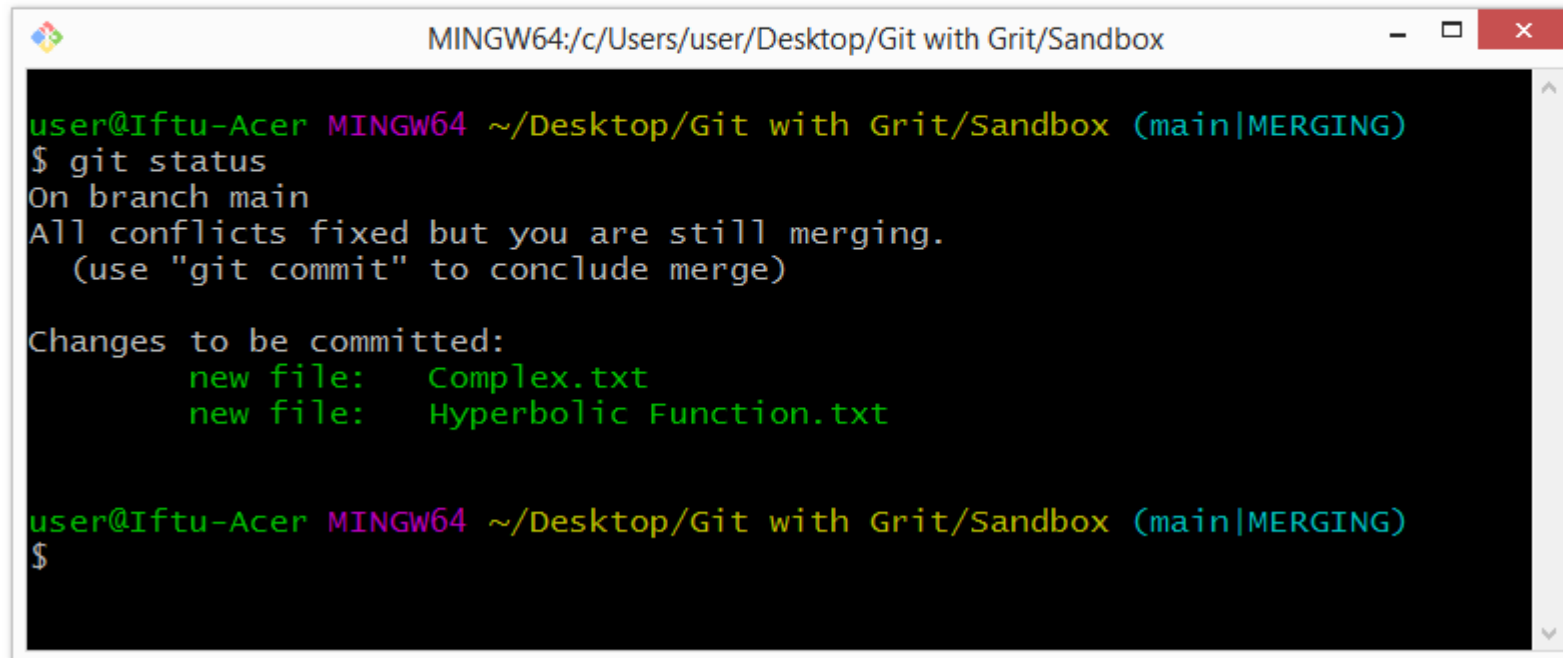
 4 Layer	Text Document	1 KB
 Calculator Basic	Text Document	1 KB



```
MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox
b545545 Initial Commit
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git log B-Comp1x --oneline
52403ba (B-Comp1x) Complex Initial Commit
a8c3d6d Deleted Memory
6ec30b2 Memory Added
0120b20 Credit Added
b545545 Initial Commit
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$
```

Let's merge B-Complex now.
Oops ! There is CONFLICT

 Complex	Text Document	1 KB
 Hyperbolic Function	Text Document	1 KB
 4 Layer	Text Document	1 KB
 Calculator Basic	Text Document	1 KB

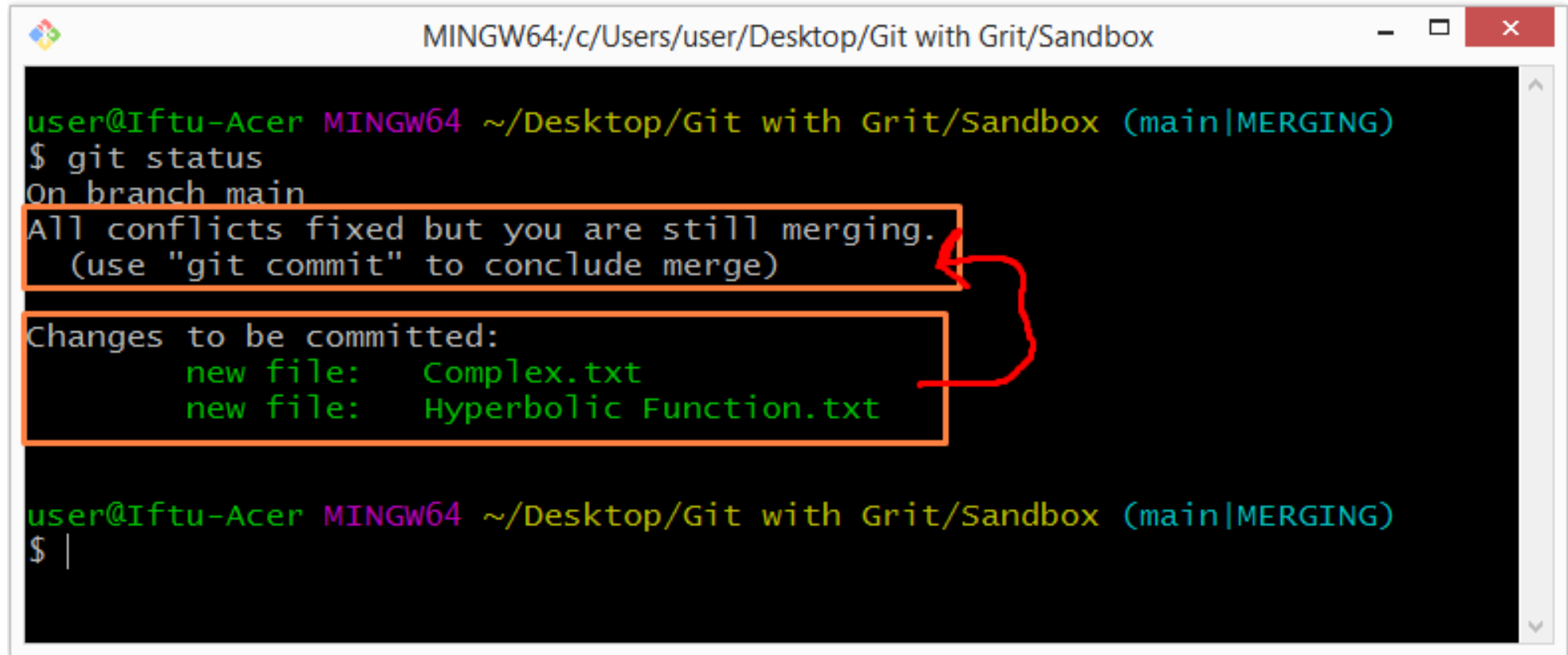


```
MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main|MERGING)
$ git status
On branch main
All conflicts fixed but you are still merging.
  (use "git commit" to conclude merge)

Changes to be committed:
  new file:   Complex.txt
  new file:   Hyperbolic Function.txt

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main|MERGING)
$
```

Complex	Text Document	1 KB
Hyperbolic Function	Text Document	1 KB
4 Layer	Text Document	1 KB
Calculator Basic	Text Document	1 KB



```
MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main|MERGING)
$ git status
On branch main
All conflicts fixed but you are still merging.
  (use "git commit" to conclude merge)

Changes to be committed:
  new file:   Complex.txt
  new file:   Hyperbolic Function.txt

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main|MERGING)
$ |
```

Git suggested to commit those changes. We will be doing that now

Complex	Text Document	1 KB
Hyperbolic Function	Text Document	1 KB
4 Layer	Text Document	1 KB
Calculator Basic	Text Document	1 KB

```
new file: Hyperbolic Function.txt

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main|MERGING)
$ git commit -m "Merge Fed In"
[main 2c7a216] Merge Fed In

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git log --oneline
2c7a216 (HEAD -> main) Merge Fed In
52403ba (B-Complex) Complex Initial Commit
d9ac4f2 (A-UI) UI fed to Basic
17d06d2 4 Layers added
a8c3d6d Deleted Memory
6ec30b2 Memory Added
0120b20 Credit Added
b545545 Initial Commit

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ |
```

Done and dusted ! Phew !!!
Always take suggestion from Mr.Git

name	type	size
Complex	Text Document	1 KB
Hyperbolic Function	Text Document	1 KB
4 Layer	Text Document	1 KB
Calculator Basic	Text Document	1 KB

Calculator Basic - Notepad

File Edit Format View Help

We have created a basic file for calculator application.
We are good to go with the standard (basic) version.

BOOM !

Oops! Forgot to add my credit.

4 Layer code linked to the main fail

Developed By : Harry Potter, Gryffindor.

Complex - Notepad

File Edit Format View Help

Complex Function Added here

Hyperbolic Function - Notepad

File Edit Format View Help

Hyperbolic operations added

4 Layer - Notepad

File Edit Format View Help

We have developed 4 layers in our display.

Time to work on

REMOTE

repository

Remote



- Adding remote repo
- Push
- Push branches
- Clone
- Check the remote via remote -v
- Push
- Collaboration
- Add Collaborator
- Fetch
- Pull

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

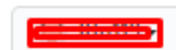
Repository template

Start your repository with a template repository's contents.

No template ▾

Owner *

Repository name *



Great repository names are short and memorable. Need inspiration? How about [studious-octo-meme](#)?

Description (optional)

☒ Public

Anyone on the internet can see this repository. You choose who can commit.

☐ Private

You choose who can see and commit to this repository.

Initialize this repository with:

Skip this step if you're importing an existing repository.

☐ Add a README file

This is where you can write a long description for your project. [Learn more.](#)

☐ Add .gitignore

Choose which files not to track from a list of templates. [Learn more.](#)

☐ Choose a license

A license tells others what they can and can't do with your code. [Learn more.](#)

Create repository

Repository name *



Sandbox



Repository name is available. Need inspiration? How about

☒ Public

Anyone on the internet can see this repository. You choose who can commit.

☐ Private

You choose who can see and commit to this repository.

Initialize this repository with:

Skip this step if you're importing an existing repository.

☐ Add a README file

This is where you can write a long description for your project. [Learn more.](#)

☐ Add .gitignore


Choose which files not to track from a list of templates. [Learn more.](#)

☐ Choose a license

A license tells others what they can and can't do with your code. [Learn more.](#)

Create repository

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

 Set up in Desktop

or

HTTPS

SSH



Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

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

```
echo "# Sandbox" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/Iftu119/Sandbox.git
git push -u origin main
```



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

```
git remote add origin https://github.com/Iftu119/Sandbox.git
git branch -M main
git push -u origin main
```



...or import code from another repository

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

[Import code](#)

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



Set up in Desktop

or

HTTPS

SSH



Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

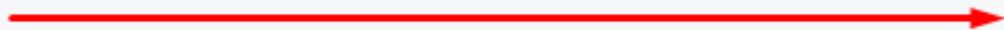
...or create a new repository on the command line

```
echo "# Sandbox" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/Iftu119/Sandbox.git
git push -u origin main
```



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

```
git remote add origin https://github.com/Iftu119/Sandbox.git
git branch -M main
git push -u origin main
```



...or import code from another repository





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

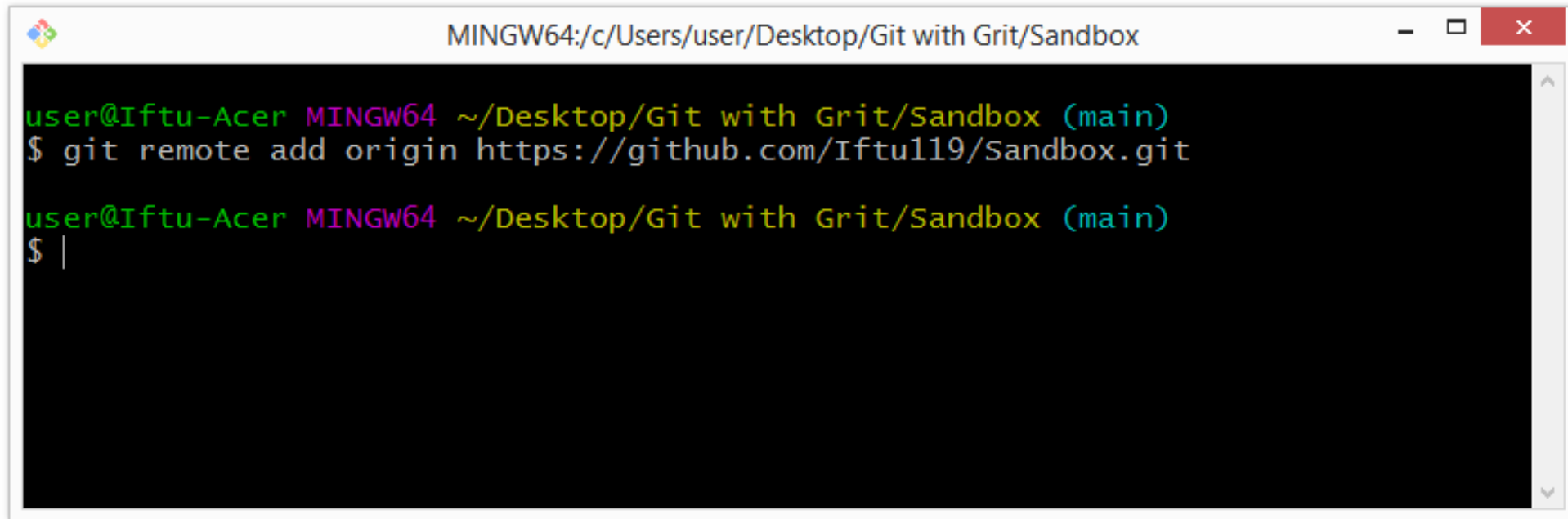
[Import code](#)

We have already named the default branch MAIN .

So that 2nd line with
\$ git branch -M main
is **NOT** required for us now.





\$ git remote add origin <URL>

 Complex	Text Document	1 KB
 Hyperbolic Function	Text Document	1 KB
 4 Layer	Text Document	1 KB
 Calculator Basic	Text Document	1 KB



```
MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git remote add origin https://github.com/Iftu119/Sandbox.git
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ |
```

\$ git push -u origin main

 Complex	Text Document	1 KB
 Hyperbolic Function	Text Document	1 KB
 4 Layer	Text Document	1 KB
 Calculator Basic	Text Document	1 KB


```
MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git remote add origin https://github.com/Iftu119/Sandbox.git





user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git push -u origin main
Enumerating objects: 22, done.
Counting objects: 100% (22/22), done.
Delta compression using up to 4 threads
Compressing objects: 100% (17/17), done.
Writing objects: 100% (22/22), 2.17 KiB | 445.00 KiB/s, done.
Total 22 (delta 5), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (5/5), done.
To https://github.com/Iftu119/Sandbox.git
 * [new branch]      main -> main
Branch 'main' set up to track remote branch 'main' from 'origin'.

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$
```


Things got updated in the remote repository on Github

[main](#) [1 branch](#) [0 tags](#) [Go to file](#) [Add file](#) [Code](#)

 **Iftu119** Merge Fed In 2c7a216 1 hour ago 🕒 8 commits

 4 Layer.txt	4 Layers added	11 hours ago
 Calculator Basic.txt	UI fed to Basic	11 hours ago
 Complex.txt	Complex Initial Commit	2 hours ago
 Hyperbolic Function.txt	Complex Initial Commit	2 hours ago

Help people interested in this repository understand your project by adding a README.

[Add a README](#)

Did you notice that we have only pushed the **main** branch ?
Rest of the branches are not there in GitHub

main


1 branch

0 tags





Go to file

Add file

Code

 Iftu119 Merge Fed In

2c7a216 1 hour ago 8 commits

 4 Layer.txt	4 Layers added	11 hours ago
 Calculator Basic.txt	UI fed to Basic	11 hours ago
 Complex.txt	Complex Initial Commit	2 hours ago
 Hyperbolic Function.txt	Complex Initial Commit	2 hours ago

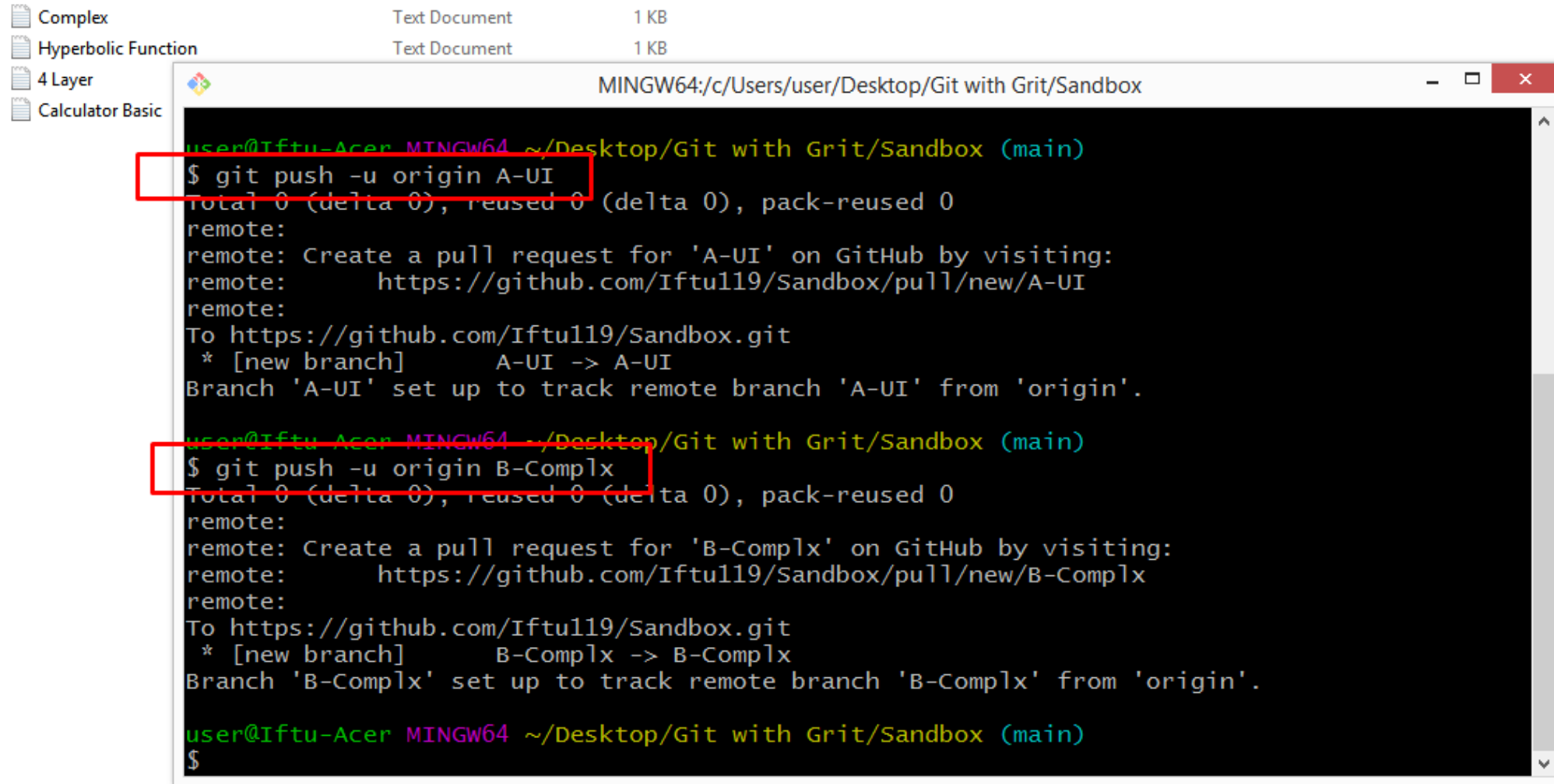
Help people interested in this repository understand your project by adding a README.

Add a README

Let's push other branches.

```
$ git push -u origin A-UI
```

```
$ git push -u origin B-Complex
```



The image shows a Windows file explorer window in the background with the following files:

File Name	File Type	Size
Complex	Text Document	1 KB
Hyperbolic Function	Text Document	1 KB
4 Layer		
Calculator Basic		

In the foreground, a terminal window titled "MINGW64:/c/Users/user/Desktop/Git with Grit/Sandbox" displays the following commands and output:

```
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git push -u origin A-UI
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'A-UI' on GitHub by visiting:
remote:   https://github.com/Iftu119/Sandbox/pull/new/A-UI
remote:
To https://github.com/Iftu119/Sandbox.git
 * [new branch]      A-UI -> A-UI
Branch 'A-UI' set up to track remote branch 'A-UI' from 'origin'.

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$ git push -u origin B-Complex
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'B-Complex' on GitHub by visiting:
remote:   https://github.com/Iftu119/Sandbox/pull/new/B-Complex
remote:
To https://github.com/Iftu119/Sandbox.git
 * [new branch]      B-Complex -> B-Complex
Branch 'B-Complex' set up to track remote branch 'B-Complex' from 'origin'.

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Sandbox (main)
$
```

main

3 branches

0 tags

Go to file

Add file

Code

Switch branches/tags

Find or create a branch...

Branches

Tags

✓ main

A-UI

B-Complex

View all branches

2c7a216 1 hour ago

8 commits

4 Layers added

11 hours ago

UI fed to Basic

11 hours ago

Complex Initial Commit

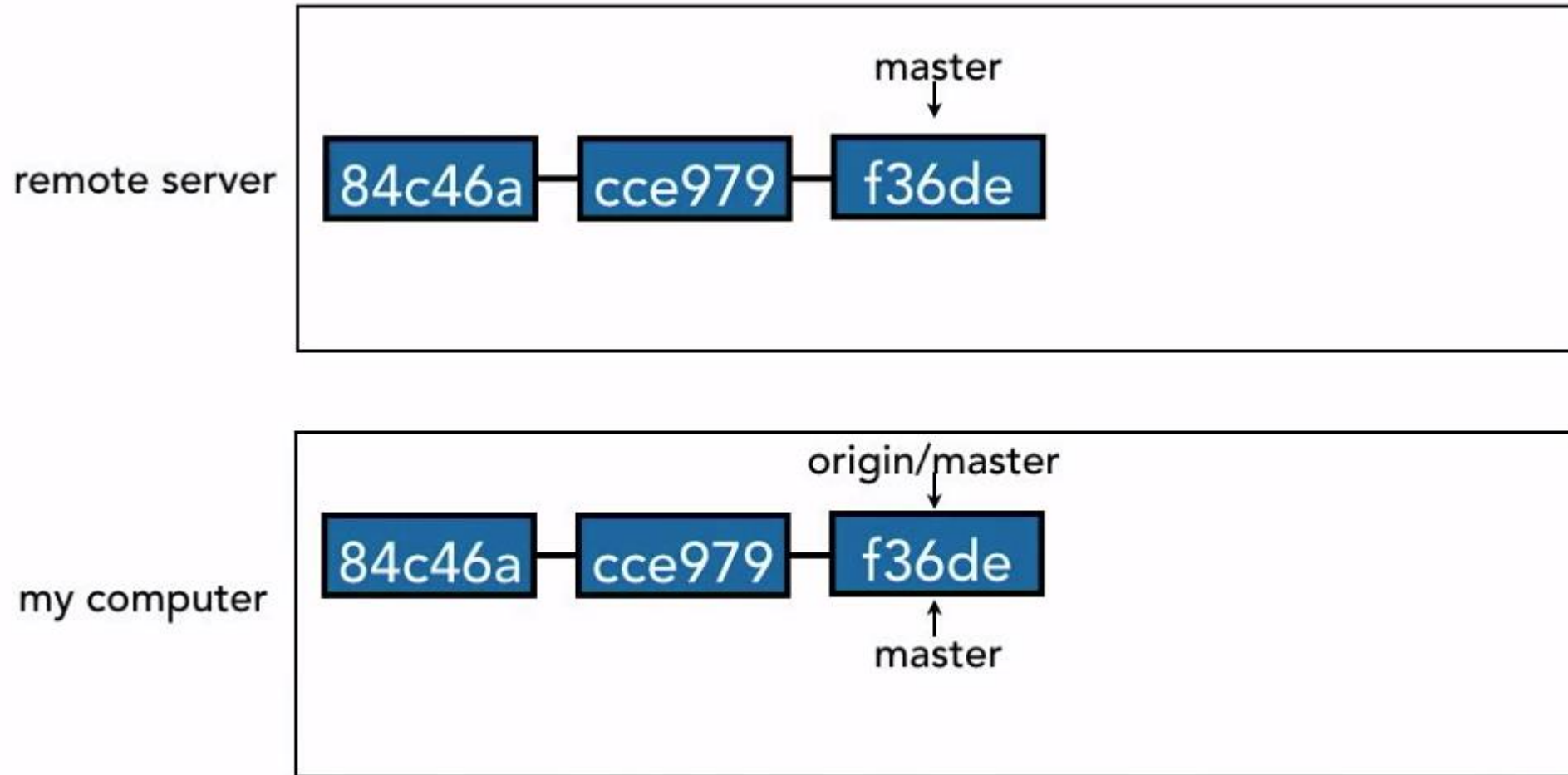
2 hours ago

Complex Initial Commit

2 hours ago

Help people interested in this repository understand your project by adding a README.


Add a README



Let's forget the local repository we have.
We shall bring the works from the Remote repository and then resume working.

Time for
CLONE
operation

Git with Grit > Remote Work (New Directory)

 > Git with Grit > Remote Work				
Name	Date modified	Type	Size	
This folder is empty.				

Copy the HTTPS

main 3 branches 0 tags

Iftu119 Merge Fed In

4 Layer.txt	4 Layers added
Calculator Basic.txt	UI fed to Basic
Complex.txt	Complex Initial Commit
Hyperbolic Function.txt	Complex Initial Commit

Help people interested in this repository understand your project by adding a README.

Go to file Add file **Code**

Clone

HTTPS SSH GitHub CLI

`https://github.com/Iftu119/Sandbox.git`

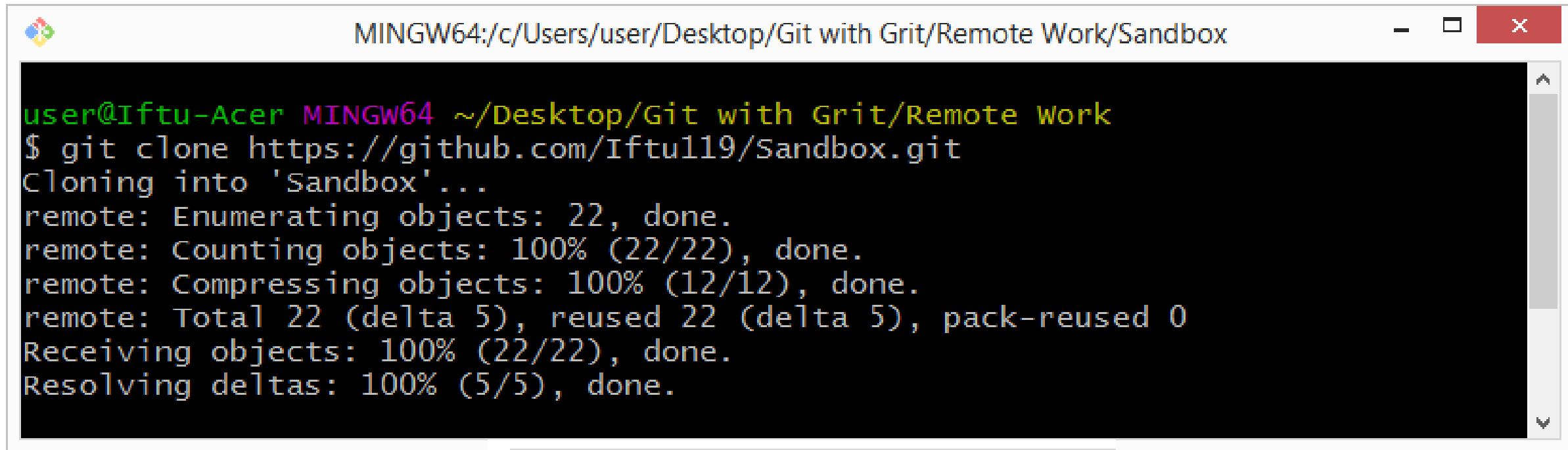
Use Git or checkout with SVN using the web URL.

Open with GitHub Desktop

Download ZIP

Add a README






```
$ git clone <https>
```

A screenshot of a Windows terminal window. The title bar reads "MINGW64:/c/Users/user/Desktop/Git with Grit/Remote Work/Sandbox". The terminal text shows a successful git clone operation from a GitHub repository. The output includes progress for enumerating, counting, and compressing objects, and resolving deltas.


```
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work
$ git clone https://github.com/Iftu119/Sandbox.git
Cloning into 'Sandbox'...
remote: Enumerating objects: 22, done.
remote: Counting objects: 100% (22/22), done.
remote: Compressing objects: 100% (12/12), done.
remote: Total 22 (delta 5), reused 22 (delta 5), pack-reused 0
Receiving objects: 100% (22/22), done.
Resolving deltas: 100% (5/5), done.
```

 ▶ Git with Grit ▶ Remote Work ▶ Sandbox

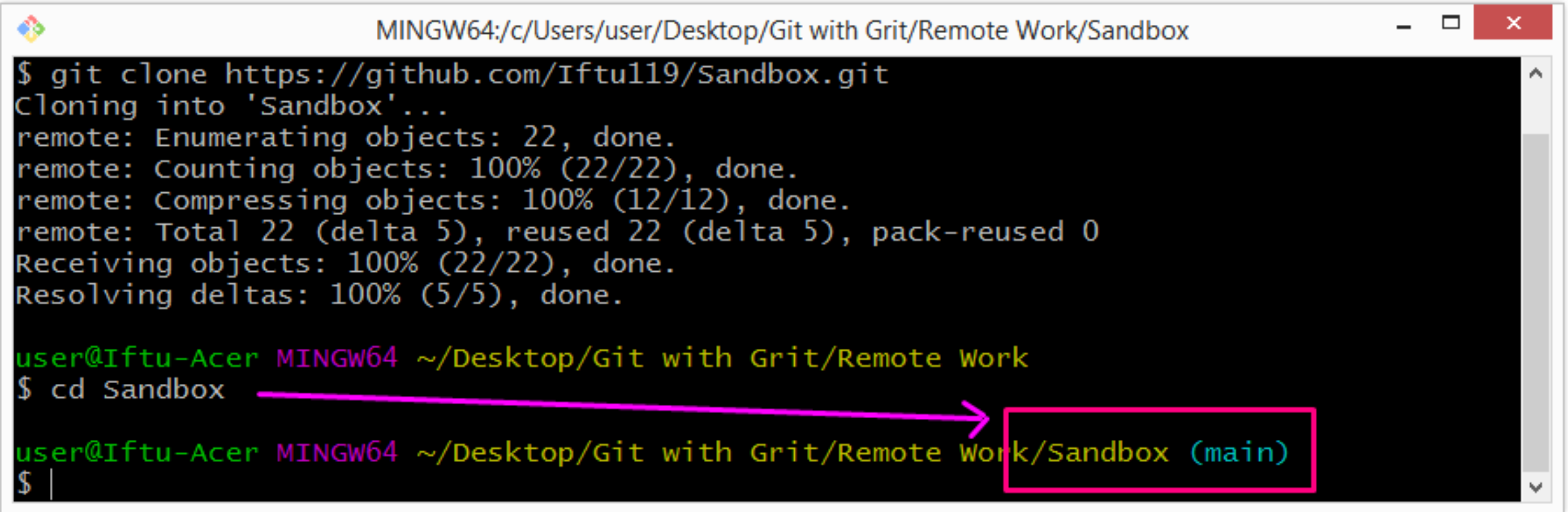
Name

-  4 Layer
-  Calculator Basic
-  Complex
-  Hyperbolic Function

Let's get into the CLONED "Sandbox"

 Sandbox

File folder



```
MINGW64:/c/Users/user/Desktop/Git with Grit/Remote Work/Sandbox
$ git clone https://github.com/Iftu119/Sandbox.git
Cloning into 'Sandbox'...
remote: Enumerating objects: 22, done.
remote: Counting objects: 100% (22/22), done.
remote: Compressing objects: 100% (12/12), done.
remote: Total 22 (delta 5), reused 22 (delta 5), pack-reused 0
Receiving objects: 100% (22/22), done.
Resolving deltas: 100% (5/5), done.

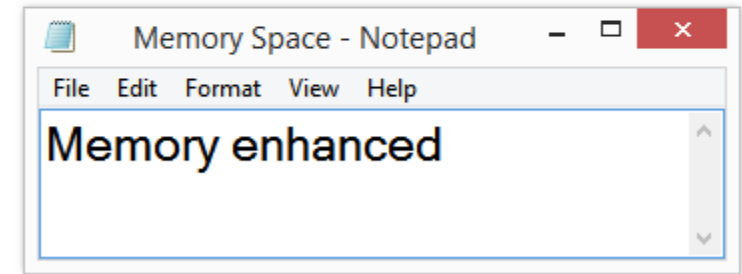
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work
$ cd Sandbox
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ |
```

The terminal window shows the execution of a git clone command to create a local repository named 'Sandbox' from a GitHub repository. The output indicates that the cloning process is complete. The user then navigates to the 'Sandbox' directory using the 'cd' command. The terminal prompt shows the current directory as '~/Desktop/Git with Grit/Remote Work/Sandbox (main)', which is highlighted by a pink box and a pink arrow pointing from the 'cd' command in the previous line.

New file added,committed

4 Layer	Text Document	1 KB
Calculator Basic	Text Document	1 KB
Complex	Text Document	1 KB
Hyperbolic Function	Text Document	1 KB
Memory Space	Text Document	1 KB

4 Layer	Text Document	1 KB
Calculator Basic	Text Document	1 KB
Complex	Text Document	1 KB
Hyperbolic Function	Text Document	1 KB
Memory Space	Text Document	1 KB



```
MINGW64:/c/Users/user/Desktop/Git with Grit/Remote Work/Sandbox
$ cd Sandbox
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ git add .
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ git commit -m "Memory Added"
[main 38ed239] Memory Added
1 file changed, 1 insertion(+)
create mode 100644 Memory Space.txt
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ |
```

So what's the status now ?

 4 Layer	Text Document	1 KB
 Calculator Basic	Text Document	1 KB
 Complex	Text Document	1 KB
 Hyperbolic Function	Text Document	1 KB
 Memory Space	Text Document	1 KB

```
MINGW64:/c/Users/user/Desktop/Git with Grit/Remote Work/Sandbox
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ git commit -m "Memory Added"
[main 38ed239] Memory Added
1 file changed, 1 insertion(+)
create mode 100644 Memory Space.txt

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
(use "git push" to publish your local commits)

nothing to commit, working tree clean

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ |
```

What are the remote repositories we currently have ?

```
$ git remote -v
```

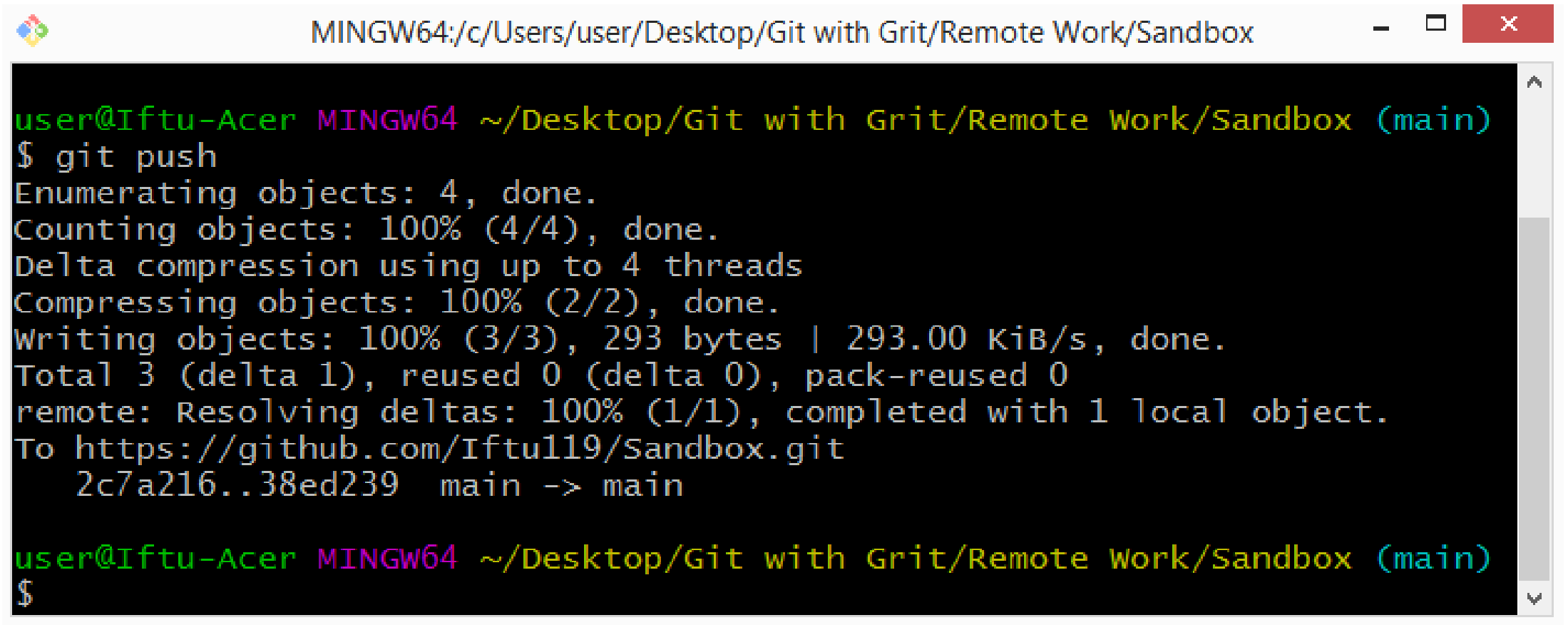
4 Layer	Text Document	1 KB
Calculator Basic	Text Document	1 KB
Complex	Text Document	1 KB
Hyperbolic Function	Text Document	1 KB
Memory Space	Text Document	1 KB

```
MINGW64:/c/Users/user/Desktop/Git with Grit/Remote Work/Sandbox
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ git remote -v
origin https://github.com/Iftu119/Sandbox.git (fetch)
origin https://github.com/Iftu119/Sandbox.git (push)

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$
```

Time to PUSH our changes to the remote repo


`$ git push` (or `$ git push origin main`)


A screenshot of a Windows terminal window titled "MINGW64:/c/Users/user/Desktop/Git with Grit/Remote Work/Sandbox". The terminal shows the execution of the "git push" command. The output indicates that 4 objects were enumerated, 100% of objects were counted, and 3 objects were written to the remote repository. The commit is pushed to the "main" branch of the remote repository "https://github.com/Iftu119/Sandbox.git".


```
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 293 bytes | 293.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/Iftu119/Sandbox.git
    2c7a216..38ed239  main -> main

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$
```

Let's see if our remote repo got updated


 main ▾


 3 branches

 0 tags






Go to file

Add file ▾

 Code ▾

 **Iftu119** Memory Added

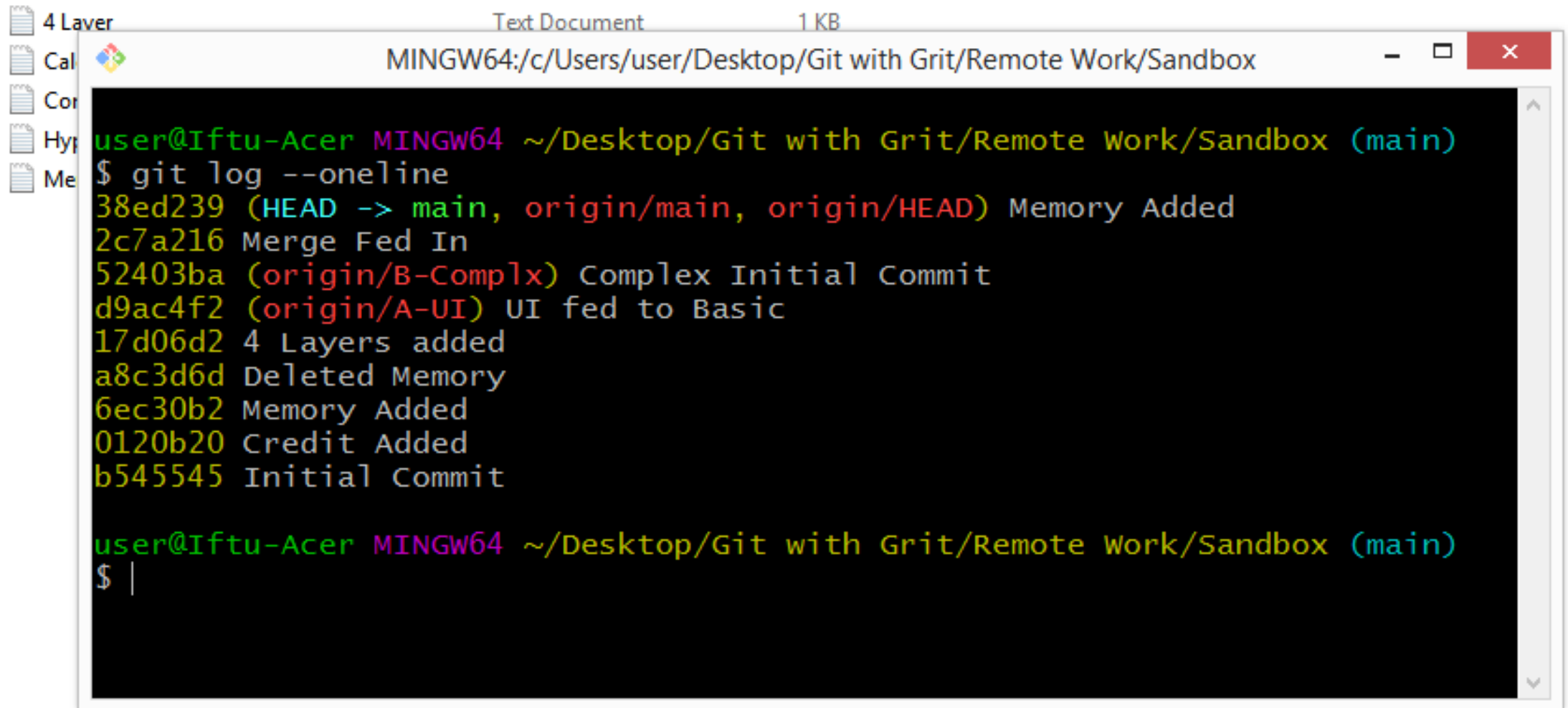
38ed239 4 minutes ago ⌚ 9 commits

 4 Layer.txt	4 Layers added	11 hours ago
 Calculator Basic.txt	UI fed to Basic	11 hours ago
 Complex.txt	Complex Initial Commit	2 hours ago
 Hyperbolic Function.txt	Complex Initial Commit	2 hours ago
 Memory Space.txt	Memory Added	4 minutes ago

Help people interested in this repository understand your project by adding a README.

Add a README

Time to have a look at the log



```
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ git log --oneline
38ed239 (HEAD -> main, origin/main, origin/HEAD) Memory Added
2c7a216 Merge Fed In
52403ba (origin/B-Complx) Complex Initial Commit
d9ac4f2 (origin/A-UI) UI fed to Basic
17d06d2 4 Layers added
a8c3d6d Deleted Memory
6ec30b2 Memory Added
0120b20 Credit Added
b545545 Initial Commit

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ |
```


Collaborate

Options

Manage access

Security & analysis

Branches

Webhooks

Notifications

Integrations

Deploy keys

Autolink references

Actions

Environments

Secrets

Settings

Repository name

Sandbox

Rename

☐ **Template repository**

Template repositories let users generate new repositories with the same directory structure and files. [Learn more.](#)

Social preview

Upload an image to customize your repository's social media preview.

Images should be at least 640×320px (1280×640px for best display).

[Download template](#)

Options

Manage access

Security & analysis

Branches

Webhooks

Notifications

Integrations

Deploy keys

Autolink references

Actions

Environments

Secrets

Who has access

PUBLIC REPOSITORY



This repository is public and visible to anyone.

[Manage](#)

DIRECT ACCESS



0 collaborators have access to this repository. Only you can contribute to this repository.

Manage access



You haven't invited any collaborators yet

[Invite a collaborator](#)



Who h

PUBLIC RE

This repo
anyone.

Manage

Manage access



Invite a collaborator to **Sandbox**



REDACTED



REDACTED

REDACTED

Invite collaborator



Invite a collaborator to **Sandbox**

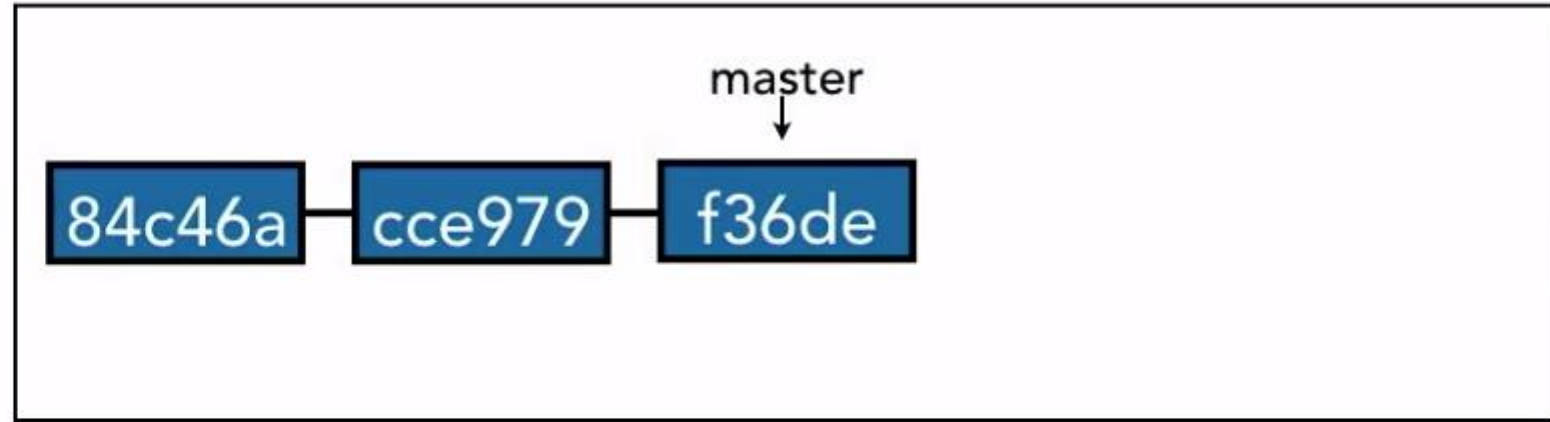


REDACTED

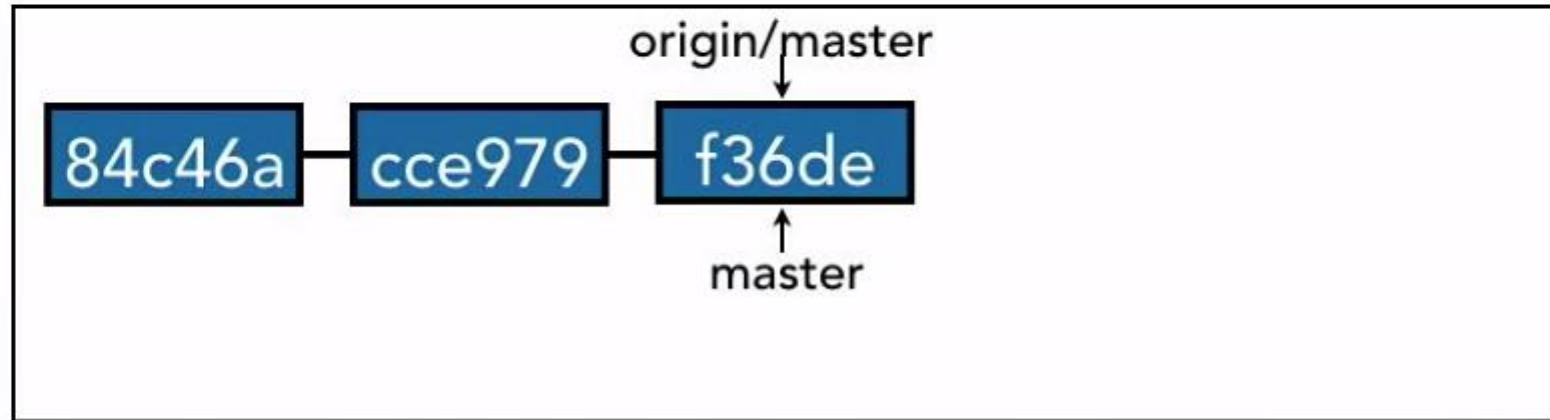


Add **REDACTED** to this repository

remote server



my computer



Wait.

Wait..

Wait...

for the Collaborator

main

3 branches

0 tags

Go to file

Add file

Code



RaiyanMahin

Create Contribution.txt

cb15b45 13 hours ago

10 commits



4 Layer.txt

4 Layers added

yesterday



Calculator Basic.txt

UI fed to Basic

yesterday



Complex.txt

Complex Initial Commit

17 hours ago



Contribution.txt

Create Contribution.txt

13 hours ago



Hyperbolic Function.txt

Complex Initial Commit

17 hours ago



Memory Space.txt

Memory Added

15 hours ago

Help people interested in this repository understand your project by adding a README.

Add a README

Let's see our local
repository now

Git with Grit > Remote Work > Sandbox			
Name	Type	Size	
4 Layer	Text Document	1 KB	
Calculator Basic	Text Document	1 KB	
Complex	Text Document	1 KB	
Hyperbolic Function	Text Document	1 KB	
Memory Space	Text Document	1 KB	


4 LayerText Document1 KB

Ca

Co

Hy

Me

 MINGW64:/c/Users/user/Desktop/Git with Grit/Remote Work/Sandbox

```
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ |
```

Local has got no idea that we have made progress in the remote repo. Now we need to make sure that our local repo gets in sync with the remote.

Time to

FETCH

the changes


\$ git fetch

- 4 Layer
- Calculator Basic
- Complex
- Hyperbolic Function
- Memory Space

Text Document 1 KB
Text Document 1 KB

```
MINGW64:/c/Users/user/Desktop/Git with Grit/Remote Work/Sandbox
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ git fetch
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 663 bytes | 3.00 KiB/s, done.
From https://github.com/Iftu119/Sandbox
   38ed239..cb15b45  main      -> origin/main
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ |
```

Now we need to know the **status**



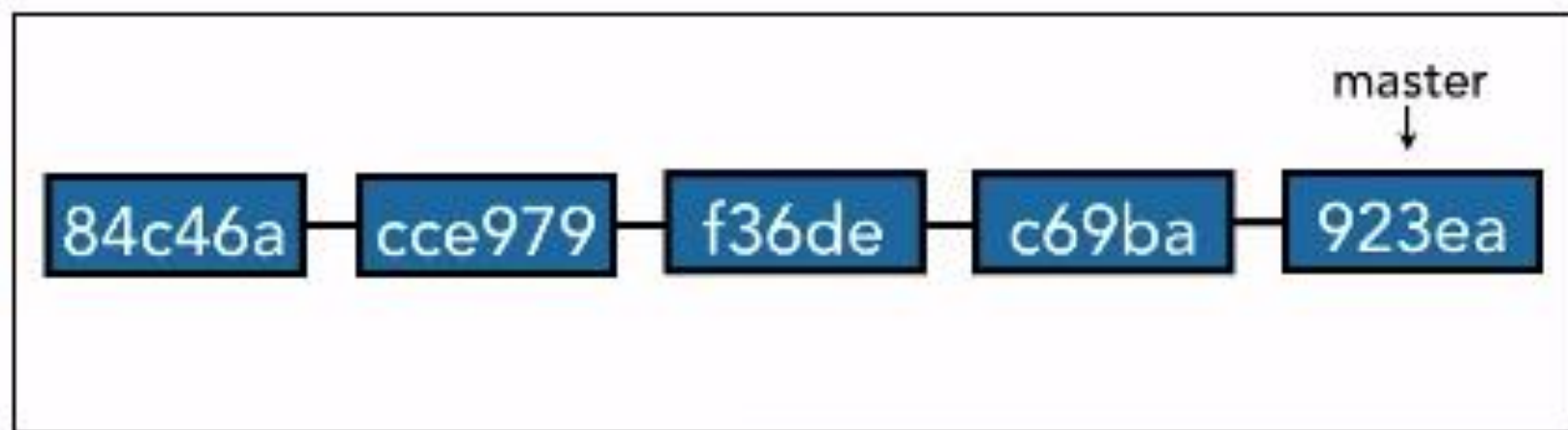
```
From https://github.com/Iftu119/Sandbox
38ed239..cb15b45  main    -> origin/main

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ git status
On branch main
Your branch is behind 'origin/main' by 1 commit, and can be fast-forwarded
  (use "git pull" to update your local branch)

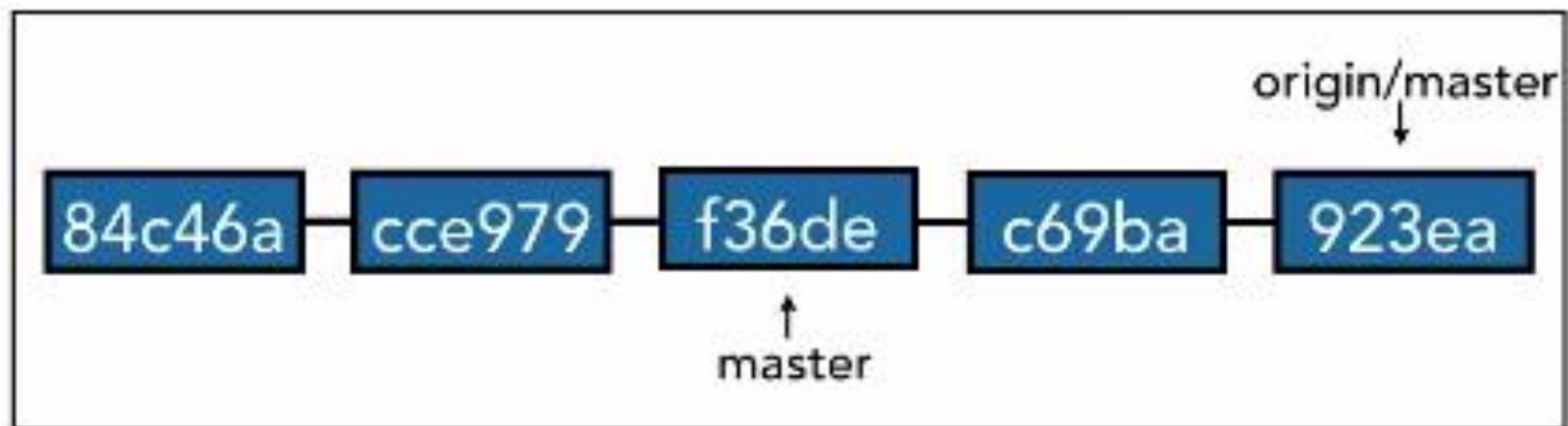
nothing to commit, working tree clean

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$
```

remote server



my computer



```
$ git merge origin/master
```

Fetch + Merge (Tracking Branch)
= Pull

So we are 1 commit behind from the remote.
Git suggested us to pull those updated

Need to

PULL

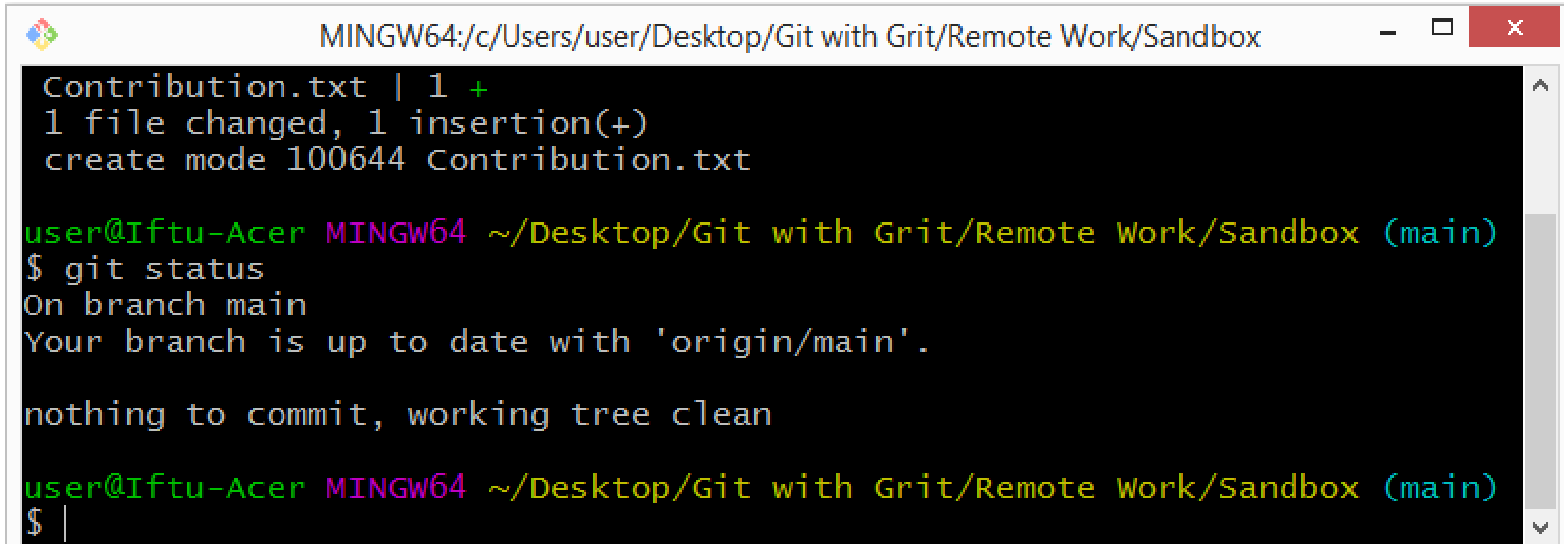
the changes

\$ git pull

4 Layer	Text Document	1 KB
Calculator Basic	Text Document	1 KB
Complex	Text Document	1 KB
Contribution	Text Document	1 KB
Hyperbolic Function	Text Document	1 KB
Memory Space	Text Document	1 KB

```
MINGW64:/c/Users/user/Desktop/Git with Grit/Remote Work/Sandbox
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ git pull
Updating 38ed239..cb15b45
Fast-forward
 Contribution.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 Contribution.txt
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ |
```


Status Looks good Now !

A screenshot of a Windows terminal window. The title bar shows the path 'MINGW64:/c/Users/user/Desktop/Git with Grit/Remote Work/Sandbox'. The terminal output shows the result of a 'git status' command, indicating that 'Contribution.txt' has been added with 1 insertion and the working tree is clean.

```
Contribution.txt | 1 +  
1 file changed, 1 insertion(+)  
create mode 100644 Contribution.txt  
  
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)  
$ git status  
On branch main  
Your branch is up to date with 'origin/main'.  
  
nothing to commit, working tree clean  
  
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)  
$ |
```

- 4 Layer
- Calculato
- Complex
- Contribut
- Hyperbol
- Memory

```
MINGW64:/c/Users/user/Desktop/Git with Grit/Remote Work/Sandbox
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ git log -3
commit cb15b4560e190b35c13b45be56597e4f7ea67500 (HEAD -> main, origin/main, origin/HEAD)
Author: Raiyan Bashir Mahin <u1804097@student.cuet.ac.bd>
Date: Sun Feb 14 00:09:01 2021 +0600

    Create Contribution.txt

commit 38ed239972ef6b0414706c087992db869994aad2
Author: Iftu119 <iftekeriftu@gmail.com>
Date: Sat Feb 13 22:39:47 2021 +0600

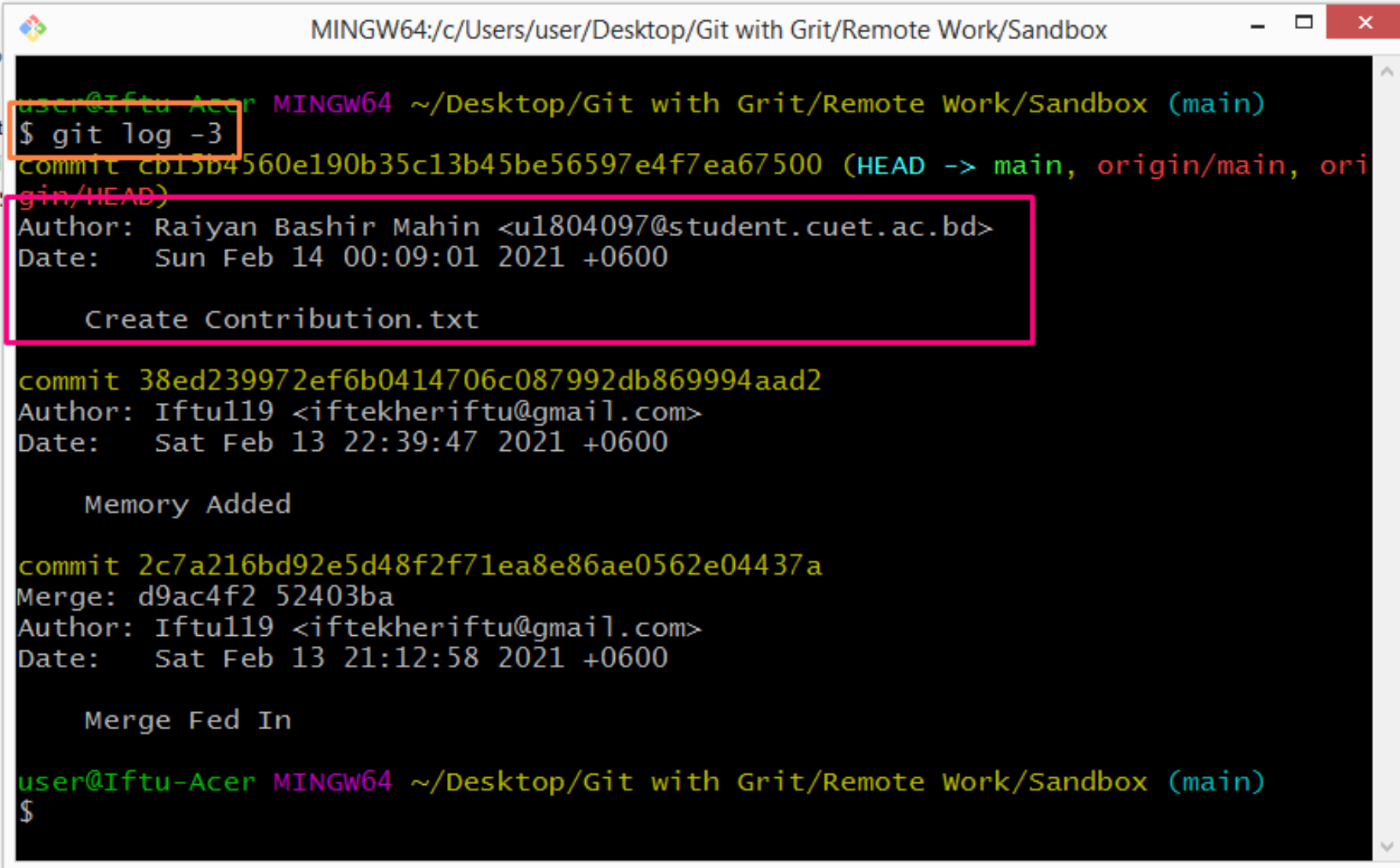
    Memory Added

commit 2c7a216bd92e5d48f2f71ea8e86ae0562e04437a
Merge: d9ac4f2 52403ba
Author: Iftu119 <iftekeriftu@gmail.com>
Date: Sat Feb 13 21:12:58 2021 +0600

    Merge Fed In

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ |
```

Let's check the **LOG** to find out who actually contributed to this repository



The screenshot shows a Windows terminal window titled "MINGW64:/c/Users/user/Desktop/Git with Grit/Remote Work/Sandbox". The terminal displays the output of the command `git log -3`. The output shows three commits. The first commit, `cb15b4560e190b35c13b45be56597e4f7ea67500`, is highlighted with a red box and shows the author "Raiyan Bashir Mahin" and the file "Create Contribution.txt". The second commit, `38ed239972ef6b0414706c087992db869994aad2`, is highlighted with a green box and shows the author "Iftu119" and the file "Memory Added". The third commit, `2c7a216bd92e5d48f2f71ea8e86ae0562e04437a`, is highlighted with a blue box and shows the author "Iftu119" and the file "Merge Fed In". The terminal prompt is `user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)`.

```
user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ git log -3
commit cb15b4560e190b35c13b45be56597e4f7ea67500 (HEAD -> main, origin/main, origin/HEAD)
Author: Raiyan Bashir Mahin <u1804097@student.cuet.ac.bd>
Date: Sun Feb 14 00:09:01 2021 +0600

    Create Contribution.txt

commit 38ed239972ef6b0414706c087992db869994aad2
Author: Iftu119 <iftekeriftu@gmail.com>
Date: Sat Feb 13 22:39:47 2021 +0600

    Memory Added

commit 2c7a216bd92e5d48f2f71ea8e86ae0562e04437a
Merge: d9ac4f2 52403ba
Author: Iftu119 <iftekeriftu@gmail.com>
Date: Sat Feb 13 21:12:58 2021 +0600

    Merge Fed In

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$
```

- 4 Layer
- Calculator Basic
- Complex
- Contribution
- Hyperbolic Function
- Memory Space
- Response Speed

```
MINGW64:/c/Users/user/Desktop/Git with Grit/Remote Work/Sandbox

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ git add .

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ git commit -m "Response Speed Added"
[main 663e4e3] Response Speed Added
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 Response Speed.txt

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 287 bytes | 287.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/Iftu119/Sandbox.git
   cb15b45..663e4e3  main -> main

user@Iftu-Acer MINGW64 ~/Desktop/Git with Grit/Remote Work/Sandbox (main)
$ |
```

main ▾

3 branches

0 tags

Go to file

Add file ▾

Code ▾



Iftu119 Response Speed Added

663e4e3 1 minute ago 11 commits

4 Layer.txt	4 Layers added	yesterday
Calculator Basic.txt	UI fed to Basic	yesterday
Complex.txt	Complex Initial Commit	17 hours ago
Contribution.txt	Create Contribution.txt	14 hours ago
Hyperbolic Function.txt	Complex Initial Commit	17 hours ago
Memory Space.txt	Memory Added	15 hours ago
Response Speed.txt	Response Speed Added	1 minute ago

Help people interested in this repository understand your project by adding a README.

Add a README

Gracias
