

# Software Engineering

## Assignment 00

<p> About Git </p>

# تقرير مختبر هندسة البرمجيات -المعمل الأول

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رابط Github : <https://github.com/Mohammedmonassar/Assignment.git>

عنوان المهمة :تنفيذ المحاضرة Lab0 , مقدمة حول ال Git



## خطوات التنفيذ

- إعداد معلومات المستخدم.
- إنشاء مستودع جديد والتحقق من الحالة.
- إضافة أول ملف والتزامه.
- عرض سجل الإصدارات والتنقل إلى إصدار معين.
- إنشاء فرع جديد والانتقال إليه.
- دمج الفروع.
- عرض الملفات وإجراء عمليات تنظيف.
- استرجاع الملفات المحذوفة أو المعدلة.
- حذف الملفات أو إعادة ضبط التغييرات.



## الأدوات المستخدمة

واجهة أوامر نظام .Git (Command Line)



## الهدف من المهمة

تعريف الطالب بأساسيات نظام التحكم في الإصدارات Git من خلال تنفيذ مجموعة من الأوامر.

الصور التوضيحية :كل خطوة مدعومة بصور ملتقطة من بيئة التنفيذ، توضح الأوامر والنتائج الناتجة عنها، مما يعزز الفهم التطبيقي لنظام Git.

# خطوات التنفيذ

## إعداد معلومات المستخدم



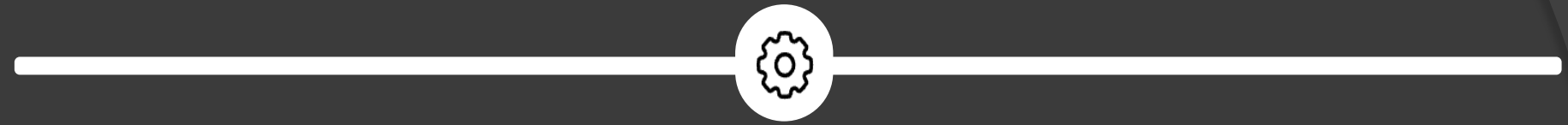
```
git config --global user.email "mmnsr9812@gmail.com"
```



```
git config --global user.name "Mohammed_Munassar"
```

# خطوات التنفيذ

## إنشاء مستودع جديد والتحقق من الحالة



```
git init
git status
```

# خطوات التنفيذ

## إضافة أول ملف والتزامه



`git add firstAssignment.txt`



`git commit -m "First Assignment"`

# خطوات التنفيذ ☐

عرض سجل الإصدارات والتنقل إلى إصدار معين ☒



git log



git checkout <commit\_id>

# خطوات التنفيذ

## إنشاء فرع جديد والانتقال إليه



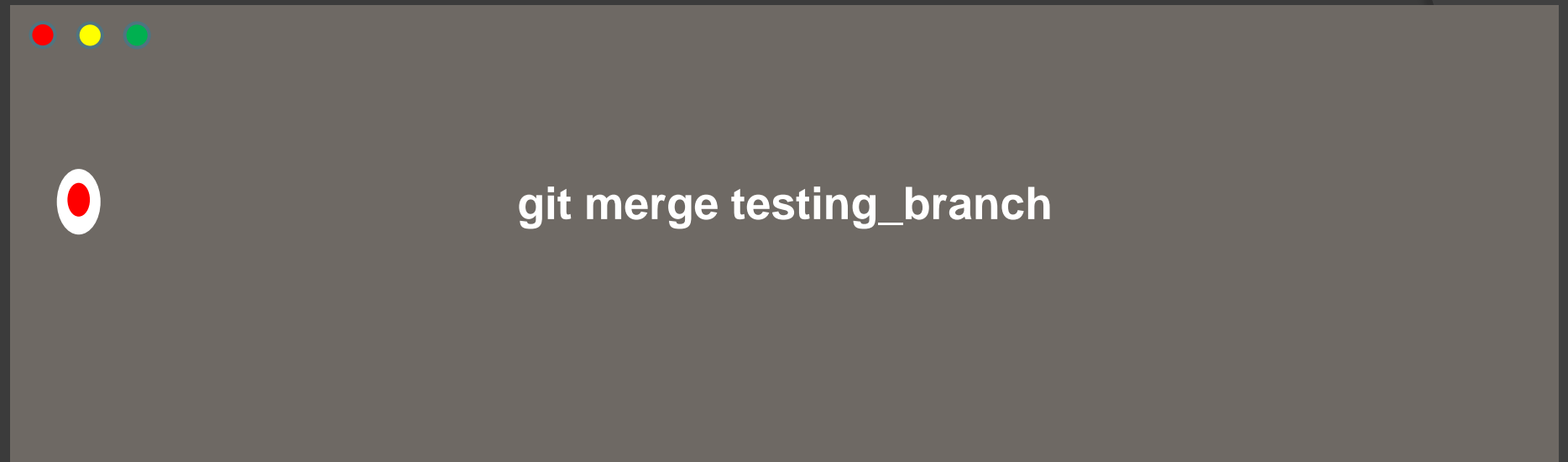
git branch

git branch testing\_branch

git checkout testing\_branch  
أو

git switch testing\_branch

# خطوات التنفي ❷ دمج الفرع مع الفرع الأساسي





# خطوات التنفيذ

## تنظيف المستودع



# محاكاة التنظيف  
git clean -dn

# تنفيذ التنظيف  
git clean -df

# خطوات التنفيذ

## إسترجاع الملفات المحذوفة أو المعدلة



```
git restore firstAssignment.txt
```

```
git restore ■
```

## خطوات التنفيذ ☐


٩ إسترجاع ملف من المستودع أو التراجع عن تتبعه ☐



```
git rm firstAssignment.txt
```



```
git restore firstAssignment.txt
```

 MINGW64:/c/Users/NEW-LIFE

NEW-LIFE@Mohammed-Noman MINGW64 ~

```
$ git config --global user.email "mmnsr9812@gmail.com"
```

NEW-LIFE@Mohammed-Noman MINGW64 ~

```
$ git config --global user.name "Mohammed Munassar"
```

NEW-LIFE@Mohammed-Noman MINGW64 ~

```
$ |
```



**git config --global user.email "mmnsr9812@gmail.com"**



**git config --global user.name "Mohammed\_Munassar"**

MINGW64:/d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed\_Munassar/Assignment/Lab 0

NEW-LIFE@Mohammed-Noman MINGW64 ~

\$ cd d:

NEW-LIFE@Mohammed-Noman MINGW64 /d

\$ cd "D:\Study\Level 4\First Semester\Software Engineering\Labs\InLABS\Mohammed\_Munassar\Assignment\Lab 0"

NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed\_Munassar/Assignment/Lab 0

\$ git init

Initialized empty Git repository in D:/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed\_Munassar/Assignment/Lab 0/.git/

NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed\_Munassar/Assignment/Lab 0 (master)

\$ git status

On branch master

No commits yet

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

NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed\_Munassar/Assignment/Lab 0 (master)

\$



**git init**



**git status**

MINGW64:/d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed\_Munassar/Assignment/Lab 0

NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed\_Munassar/Assignment/Lab 0 (master)

\$ echo "This is my firstAssignment">firstAssignment.txt

NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed\_Munassar/Assignment/Lab 0 (master)

\$ git add firstAssignment.txt

warning: in the working copy of 'firstAssignment.txt', LF will be replaced by CRLF the next time Git touches it

NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed\_Munassar/Assignment/Lab 0 (master)

\$ git commit -m "First Assignment"

[master (root-commit) df9dc38] First Assignment

1 file changed, 1 insertion(+)

create mode 100644 firstAssignment.txt

NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed\_Munassar/Assignment/Lab 0 (master)

\$ |



**git add firstAssignment.txt**



**git commit -m "First Assignment"**

MINGW64:/d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed\_Munassar/Assignment/Lab 0

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (master)
$ git log
commit df9dc38bb8c66258fd6bd97ba28d6a5bcd048bdd (HEAD -> master)
Author: Mohammed Munassar <mmnsr9812@gmail.com>
Date:   Wed Jul 23 22:35:42 2025 +0300
```

First Assignment

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (master)
$ git checkout "df9dc38bb8c66258fd6bd97ba28d6a5bcd048bdd"
Note: switching to 'df9dc38bb8c66258fd6bd97ba28d6a5bcd048bdd'.
```

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by switching back to a branch.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using -c with the switch command. Example:

```
git switch -c <new-branch-name>
```

Or undo this operation with:

```
git switch -
```

Turn off this advice by setting config variable advice.detachedHead to false

HEAD is now at df9dc38 First Assignment

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 ((df9dc38...))
$ |
```



git log



git checkout “df9dc38bb8c66258fd6bd97ba28d6a5bcd048bdd”

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 ((df9dc38...))
$ git branch
* (HEAD detached at df9dc38)
master

NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 ((df9dc38...))
$ git branch testing_branch

NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 ((df9dc38...))
$
```



**git branch**



**git branch testing\_branch**



```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 ((df9dc38...))
```

```
$ git checkout testing_branch
```

```
Switched to branch 'testing_branch'
```

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
```

```
$ git switch testing_branch
```

```
Already on 'testing_branch'
```

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
```

```
$ |
```



**git checkout testing\_branch**



**git switch testing\_branch**

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
```

```
$ git switch -c testing_branch
```

```
fatal: a branch named 'testing_branch' already exists
```

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
```

```
$ git checkout -b testing_branch
```

```
fatal: a branch named 'testing_branch' already exists
```

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
```

```
$
```



**git checkout -b testing\_branch**



**git switch -c testing\_branch**

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
$ git merge testing_branch
Already up to date.
```

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
$ git ls-files firstAssignment.txt
firstAssignment.txt
```

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
$ |
```



**git merge testing\_branch**



**git ls\_files firstAssignment.txt**

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)  
$ git clean -dn
```

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)  
$ git clean -df
```

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)  
$ |
```



**git clean -dn**



**git clean -df**

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
```

```
$ git restore firstAssignment.txt
```

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
```

```
$ git restore .
```

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
```

```
$
```



**git restore firstAssignment.txt**



**git restore .**

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
```

```
$ git rm firstAssignment.txt  
rm 'firstAssignment.txt'
```

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
```

```
$ git add firstAssignment.txt  
fatal: pathspec 'firstAssignment.txt' did not match any files
```

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
```

```
$ git reset firstAssignment.txt  
fatal: ambiguous argument 'firstAssignment.txt': unknown revision or path not in the working tree.  
Use '--' to separate paths from revisions, like this:  
'git <command> [<revision>...] -- [<file>...]'
```

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
```

```
$ git status  
On branch testing_branch  
Changes to be committed:  
  (use "git restore --staged <file>..." to unstage)  
        deleted:    firstAssignment.txt
```



**git rm firstAssignment.txt**



**git ls\_files**

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
```

```
$ git ls-files  
انتقل إلى الإعدادات لتنشيط Windows
```

```
NEW-LIFE@Mohammed-Noman MINGW64 /d/Study/Level 4/First Semester/Software Engineering/Labs/InLABS/Mohammed_Munassar/Assignment/Lab 0 (testing_branch)
```

```
$
```