



DEVOPS LAB EXPERIMENT

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LAB EXERCISE 1- WORKING WITH GIT REVERT

LAB EXERCISE: GIT REVERT

THIS EXERCISE WILL GUIDE YOU THROUGH REVERTING CHANGES IN GIT. THE GIT REVERT COMMAND IS USED TO CREATE A NEW COMMIT THAT UNDOES THE CHANGES INTRODUCED BY A PREVIOUS COMMIT WITHOUT MODIFYING THE HISTORY.

OBJECTIVE

- + LEARN HOW TO USE GIT REVERT TO UNDO CHANGES FROM SPECIFIC COMMITS.
- + PRACTICE HANDLING MERGE CONFLICTS DURING A REVERT.

PREREQUISITES

1. INSTALL GIT ON YOUR SYSTEM.
2. SET UP A GIT REPOSITORY:
GIT INIT GIT-REVERT-LAB

CD GIT-REVERT-LAB

STEPS

1. SET UP THE REPOSITORY

1. CREATE A FILE:
ECHO "LINE 1" > FILE.TXT

2. STAGE AND COMMIT THE FILE:
GIT ADD FILE.TXT

`GIT COMMIT -m "INITIAL COMMIT: ADD FILE.TXT WITH LINE 1"`

3. ADD MORE CHANGES:

`ECHO "LINE 2" >> FILE.TXT`

`GIT COMMIT -am "Add Line 2 to FILE.TXT"`

4. ADD ANOTHER CHANGE:

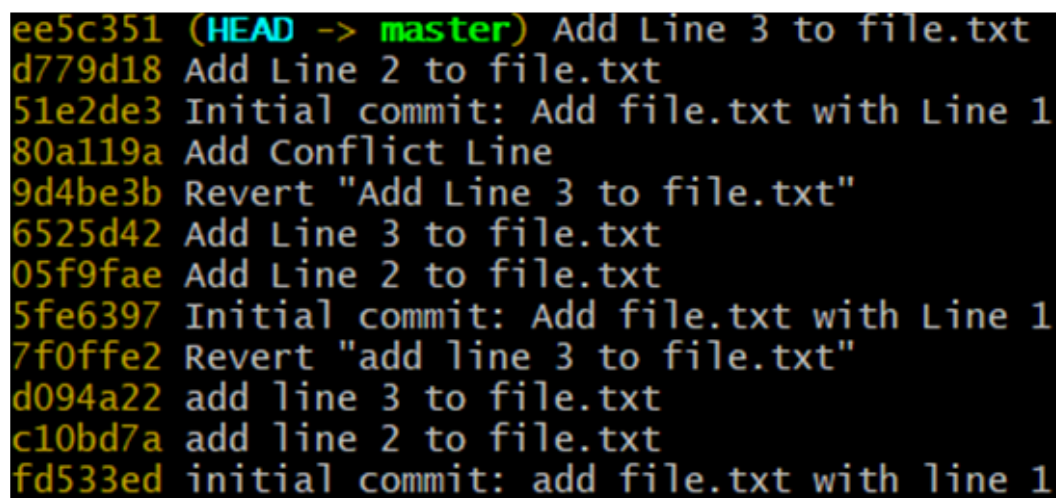
`ECHO "LINE 3" >> FILE.TXT`

`GIT COMMIT -am "Add Line 3 to FILE.TXT"`

5. VERIFY THE COMMIT HISTORY:

`GIT LOG --ONELINE`

EXAMPLE OUTPUT:

A terminal window with a black background and yellow text. The output of the command 'git log --oneline' is displayed, showing a list of commit hashes and their corresponding messages. The commits are listed from newest to oldest. The first commit is 'ee5c351 (HEAD -> master) Add Line 3 to file.txt'. The second is 'd779d18 Add Line 2 to file.txt'. The third is '51e2de3 Initial commit: Add file.txt with Line 1'. The fourth is '80a119a Add Conflict Line'. The fifth is '9d4be3b Revert "Add Line 3 to file.txt"'. The sixth is '6525d42 Add Line 3 to file.txt'. The seventh is '05f9fae Add Line 2 to file.txt'. The eighth is '5fe6397 Initial commit: Add file.txt with Line 1'. The ninth is '7f0ffe2 Revert "add line 3 to file.txt"'. The tenth is 'd094a22 add line 3 to file.txt'. The eleventh is 'c10bd7a add line 2 to file.txt'. The twelfth is 'fd533ed initial commit: add file.txt with line 1'.

```
ee5c351 (HEAD -> master) Add Line 3 to file.txt
d779d18 Add Line 2 to file.txt
51e2de3 Initial commit: Add file.txt with Line 1
80a119a Add Conflict Line
9d4be3b Revert "Add Line 3 to file.txt"
6525d42 Add Line 3 to file.txt
05f9fae Add Line 2 to file.txt
5fe6397 Initial commit: Add file.txt with Line 1
7f0ffe2 Revert "add line 3 to file.txt"
d094a22 add line 3 to file.txt
c10bd7a add line 2 to file.txt
fd533ed initial commit: add file.txt with line 1
```

2. REVERT THE LAST COMMIT

1. REVERT THE MOST RECENT COMMIT:

`GIT REVERT HEAD`

2. GIT WILL OPEN A TEXT EDITOR FOR THE COMMIT MESSAGE. SAVE AND CLOSE THE EDITOR TO COMPLETE THE REVERT.

3. VERIFY THE CONTENTS OF FILE.TXT:

`CAT FILE.TXT`

OUTPUT:

```
HP@LAPTOP-LG8FVM2R MINGW64 ~/git-revert-lab (master)
$ cat file.txt
Line 1
Line 2
```

4. CHECK THE COMMIT HISTORY: GIT LOG --ONELINE

EXAMPLE OUTPUT:

```
ee5c351 (HEAD -> master) Add Line 3 to file.txt
d779d18 Add Line 2 to file.txt
51e2de3 Initial commit: Add file.txt with Line 1
80a119a Add Conflict Line
9d4be3b Revert "Add Line 3 to file.txt"
6525d42 Add Line 3 to file.txt
05f9fae Add Line 2 to file.txt
5fe6397 Initial commit: Add file.txt with Line 1
7f0ffe2 Revert "add line 3 to file.txt"
d094a22 add line 3 to file.txt
c10bd7a add line 2 to file.txt
fd533ed initial commit: add file.txt with line 1
```

3. HANDLE MERGE CONFLICTS DURING REVERT

1. MODIFY FILE.TXT:

```
HP@LAPTOP-LG8FVM2R MINGW64 ~/git-revert-lab (master)
$ echo "Conflict Line" >> file.txt
```

REVERT THE SECOND COMMIT TO TRIGGER A CONFLICT:

```
HP@LAPTOP-LG8FVM2R MINGW64 ~/git-revert-lab (master)
$ git revert d779d18
```

GIT WILL INDICATE A CONFLICT. RESOLVE IT:

OPEN FILE.TXT AND REMOVE CONFLICT MARKERS.

o KEEP THE DESIRED LINES.

2. STAGE THE RESOLVED FILE:

GIT ADD FILE.TXT

3. COMPLETE THE REVERT:

GIT REVERT --CONTINUE