**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**

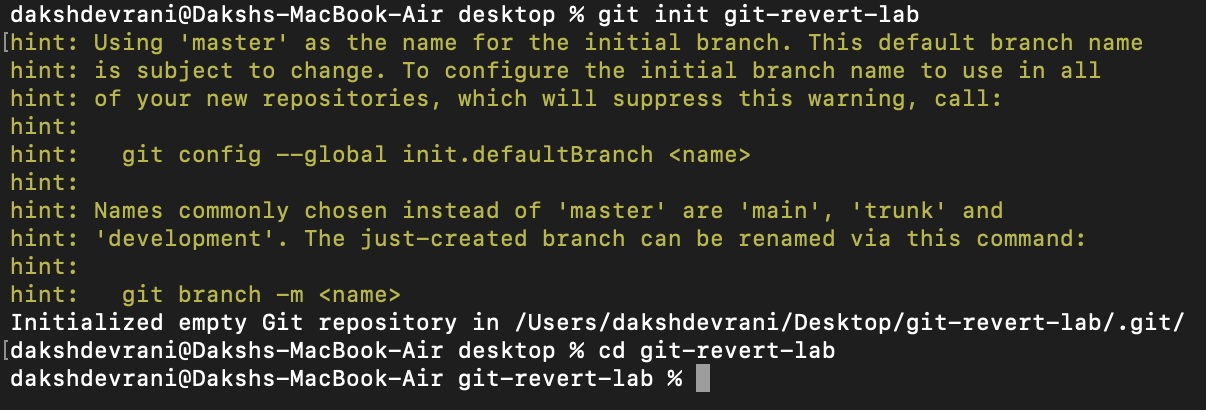
* Learn how to use git revert to undo changes from specific commits.
* Practice handling merge conflicts during a revert.

**Prerequisites**

1. Install Git on your system.
2. Set up a Git repository:

git init git-revert-lab

cd git-revert-lab



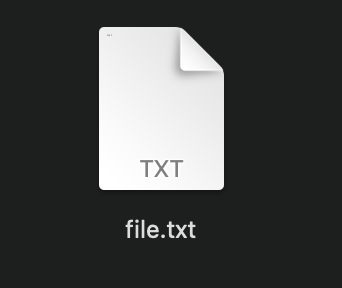


**Steps**

**1. Set Up the Repository**

1. Create a file:

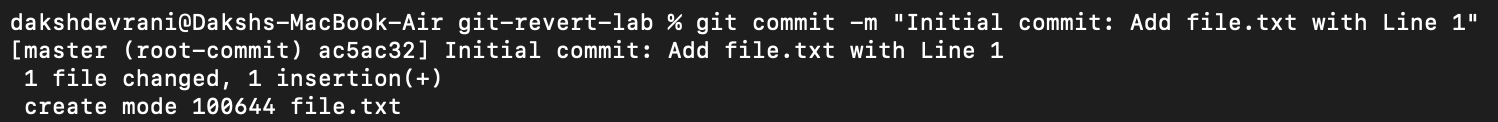
echo "Line 1" > file.txt



1. Stage and commit the file:

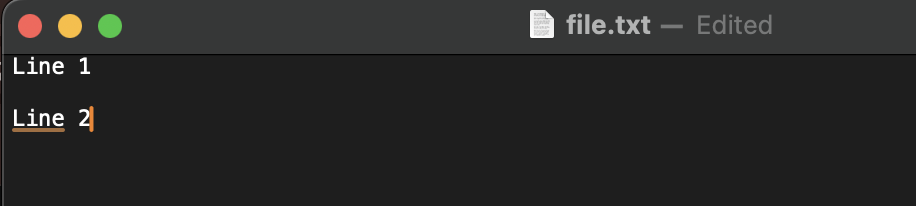
git add file.txt

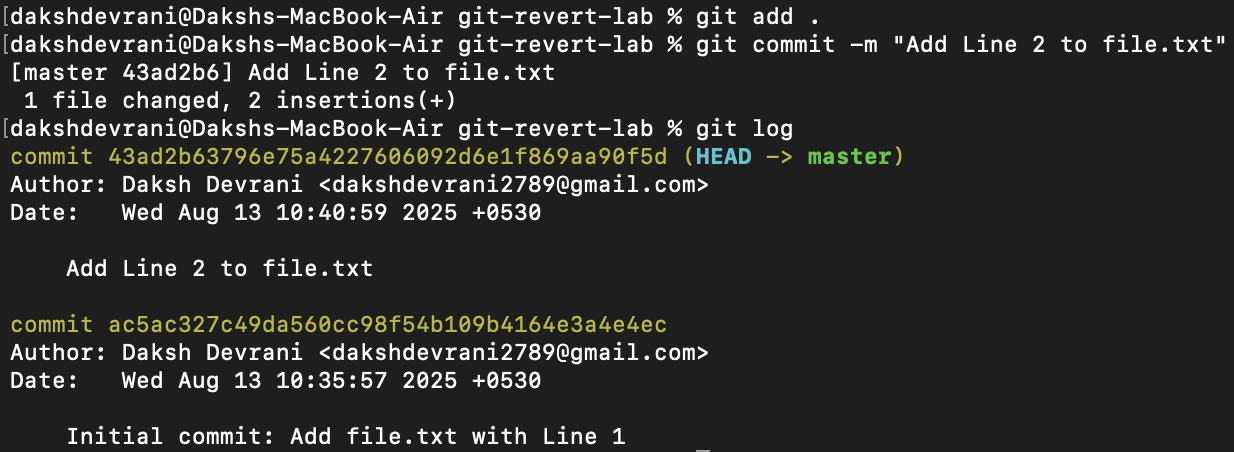
git commit -m "Initial commit: Add file.txt with Line 1"



1. Add more changes:

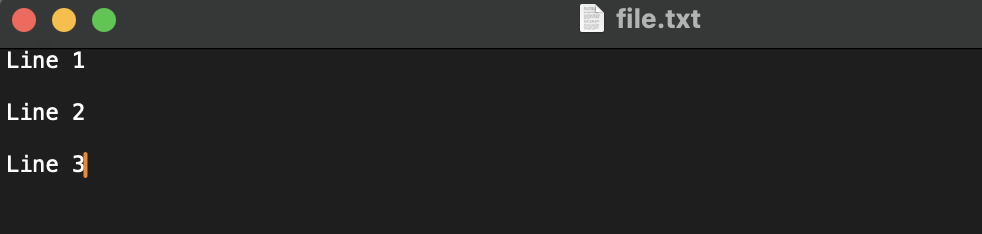
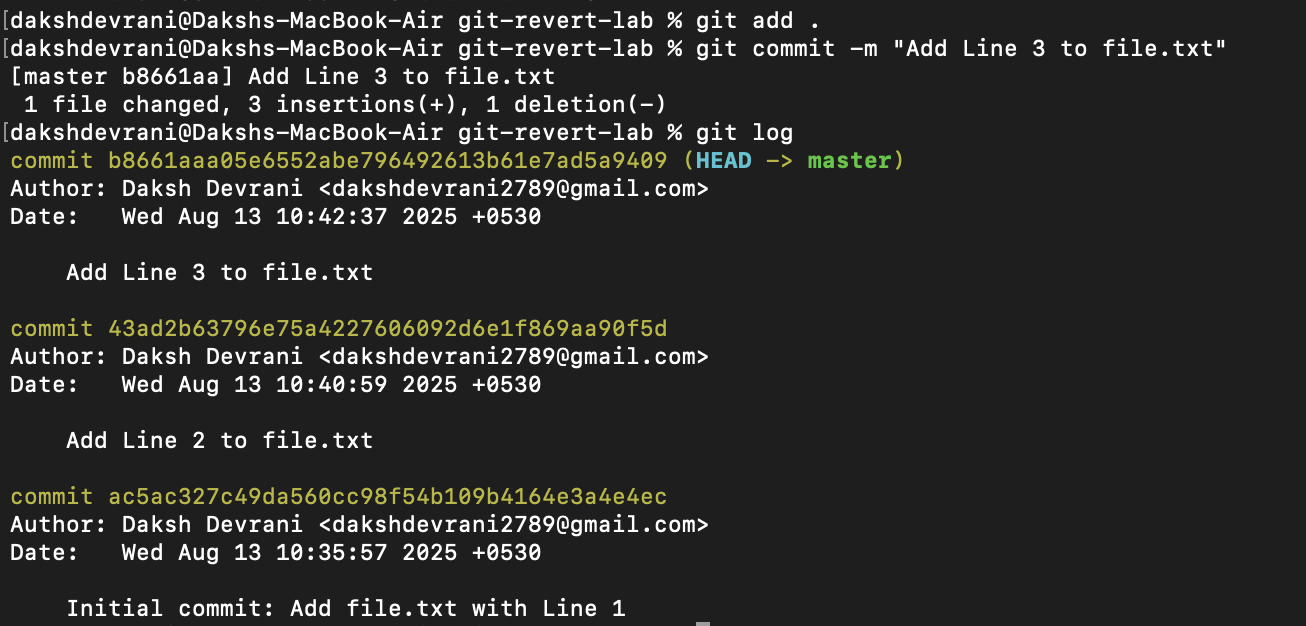
git commit -am "Add Line 2 to file.txt"





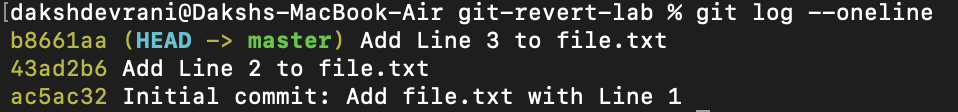
1. Add another change:

git commit -am "Add Line 3 to file.txt"



1. Verify the commit history:

git log --oneline

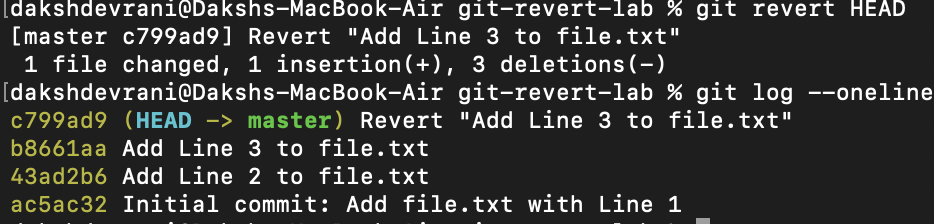


**2. Revert the Last Commit**

1. Revert the most recent commit:

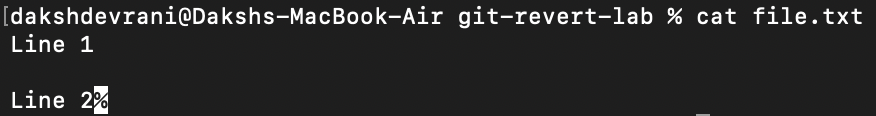
git revert HEAD

1. Git will open a text editor for the commit message. Save and close the editor to complete the revert.



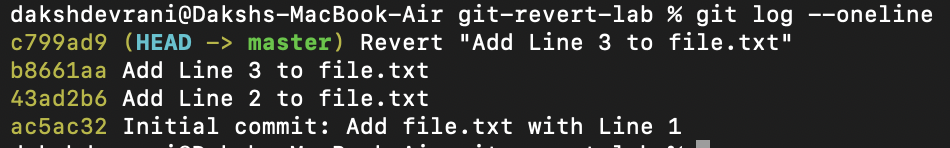
1. Verify the contents of file.txt:

cat file.txt



1. Check the commit history:

git log --oneline

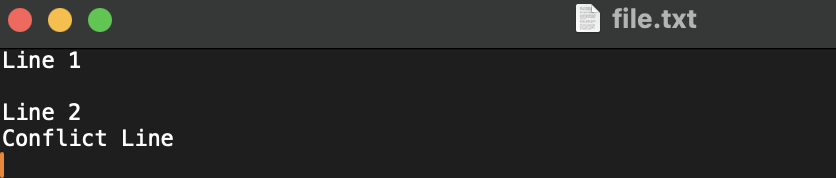
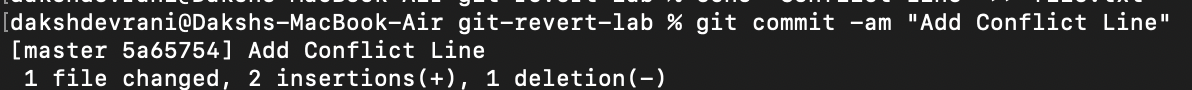


**3. Handle Merge Conflicts During Revert**

1. Modify file.txt:

echo "Conflict Line" >> file.txt

git commit -am "Add Conflict Line"

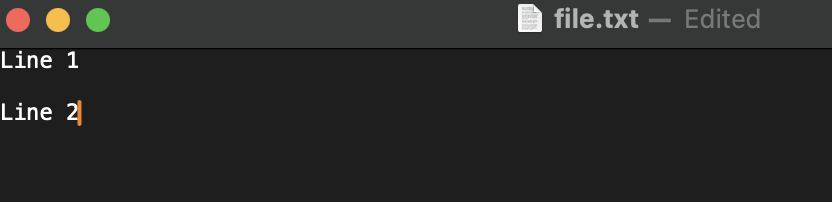


1. Revert the second commit to trigger a conflict:

git revert 43ad2b6



1. Git will indicate a conflict. Resolve it:
   * Open file.txt and remove conflict markers.
   * Keep the desired lines.



1. Stage the resolved file:

git add file.txt

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1. Complete the revert:

git revert –continue

