

## **Interactive Rebasing for Clean Commit History - Task 5**

### **What is git rebase?**

- It is the process of moving or combining a sequence of commits to a new base commit.
- Ideal for fixing messy commit messages or combining minor changes.
- It gives the opportunity to squash insignificant commits, delete obsolete ones, and make sure everything else is in order before committing to the “official” project history.

#### ➤ **Creating a git repo**

```
C:\Users\karur>mkdir rebase-demo  
C:\Users\karur>cd rebase-demo  
C:\Users\karur\rebase-demo>git init  
Initialized empty Git repository in C:/Users/karur/rebase-demo/.git/
```

#### ➤ **Creating a file and committing changes**

```
C:\Users\karur\rebase-demo>echo "hello, this is line1">file.txt  
C:\Users\karur\rebase-demo>git add file.txt  
C:\Users\karur\rebase-demo>git commit -m "Initial commit"  
[master (root-commit) b0f903d] Initial commit  
1 file changed, 1 insertion(+)  
create mode 100644 file.txt
```

```
C:\Users\karur\rebase-demo>echo "welcome, this is line2" >> file.txt  
C:\Users\karur\rebase-demo>git add file.txt  
C:\Users\karur\rebase-demo>git commit -m "Added a line"  
[master 88a3338] Added a line  
1 file changed, 1 insertion(+)
```

```
C:\Users\karur\rebase-demo>echo "fix typo" >> file.txt  
C:\Users\karur\rebase-demo>git add file.txt  
C:\Users\karur\rebase-demo>git commit -m "Fixing a typo"  
[master be703cb] Fixing a typo  
1 file changed, 1 insertion(+)
```

```
C:\Users\karur\rebase-demo>echo "extra line" >> file.txt  
C:\Users\karur\rebase-demo>git add file.txt  
C:\Users\karur\rebase-demo>git commit -m "made a minor change"  
[master cc8f5ea] made a minor change  
1 file changed, 1 insertion(+)
```

➤ **Using interactive rebase**

Rebasing the last 3 commits interactively:

```
pick 26896c4 Added a line  
pick 346cac1 Fixing a typo  
pick bf5793a made a minor change
```

Using **squash** to combine with previous commit:

```
pick 26896c4 Added a line  
squash 346cac1 Fixing a typo  
squash bf5793a made a minor change
```

```
# This is a combination of 3 commits.  
# This is the 1st commit message:  
|  
Added a line  
  
# This is the commit message #2:  
  
Fixing a typo  
  
# This is the commit message #3:  
  
made a minor change
```

➤ **Checking the cleaned-up history:**

```
PS C:\Users\karur> git log --oneline
4028e07 (HEAD -> master) Added a line
66223e9 Initial commit
```