

## GIT KATAS

### 1) basic-commit

```
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git log
commit 13c5fb7de609252aaaa91f28f02c649a327c5f14 (HEAD -> master)
Author: git-katas trainer bot <git-katas@example.com>
Date:   Wed Oct 11 14:13:14 2023 +0530

1
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> echo> sample.txt
echo> : The term 'echo>' is not recognized as the name of a cmdlet, function, script file, or operable
program. Check the spelling of the name, or if a path was included, verify that the path is correct
and try again.
At line:1 char:1
+ echo> sample.txt
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (echo>:String) [], CommandNotFoundException
+ FullyQualifiedErrorId : CommandNotFoundException

PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> echo > sample.txt
cmdlet Write-Output at command pipeline position 1
Supply values for the following parameters:
InputObject[0]: kushagra
InputObject[1]: meerut
InputObject[2]: 24
InputObject[3]:
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    sample.txt

nothing added to commit but untracked files present (use "git add" to track)
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git add -A
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git commit -m "sample file comiited"
[master ee073e7] sample file comiited
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 sample.txt
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git status
On branch master
```

```
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> echo > sample2.txt

cmdlet Write-Output at command pipeline position 1
Supply values for the following parameters:
InputObject[0]: mona
InputObject[1]: 34
InputObject[2]: hyderabad
InputObject[3]: playing shuttle
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    sample2.txt

nothing added to commit but untracked files present (use "git add" to track)
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git add -A
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git commit -m "sample2 comitted"
[master b797626] sample2 comitted
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 sample2.txt
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git log
commit b797626dc69191a0f8a31d00204e03d01d5c1a8b (HEAD -> master)
Author: git-katas trainer bot <git-katas@example.com>
Date:   Wed Oct 11 15:50:21 2023 +0530

  sample2 comitted

commit ee073e776c7707b5d65d09e6288f4ecd95af6a8e
Author: git-katas trainer bot <git-katas@example.com>
Date:   Wed Oct 11 15:49:01 2023 +0530

  sample file comiited

commit 13c5fb7de609252aaaa91f28f02c649a327c5f14
Author: git-katas trainer bot <git-katas@example.com>
```

```
1
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git log --oneline
b797626 (HEAD -> master) sample2 comitted
ee073e7 sample file comited
13c5fb7 1
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git log --oneline --graph
* b797626 (HEAD -> master) sample2 comitted
* ee073e7 sample file comited
* 13c5fb7 1
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> echo content>sample2
content>sample2
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> echo content>>sample2
content>>sample2
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git og
git: 'og' is not a git command. See 'git --help'.

The most similar command is
  log
PS C:\Users\gulat\Downloads\git-katas\basic-staging\exercise> git log
commit b797626dc69191a0f8a31d00204e03d01d5c1a8b (HEAD -> master)
Author: git-katas trainer bot <git-katas@example.com>
Date:   Wed Oct 11 15:50:21 2023 +0530

    sample2 comitted

commit ee073e776c7707b5d65d09e6288f4ecd95af6a8e
Author: git-katas trainer bot <git-katas@example.com>
Date:   Wed Oct 11 15:49:01 2023 +0530

    sample file comited

commit 13c5fb7de609252aaaa91f28f02c649a327c5f14
Author: git-katas trainer bot <git-katas@example.com>
```

## 2)Basic staging

```

1 notepad "C:\Users\gulat\Downloads\git-katas\basic-staging\exercise\file.txt" -(1)-
2 sc file.txt '2'
3 git diff -(@@ -1 +1 @@
-3
+2)-
4 git diff --staged -(nothing)-
5 git add file.txt
6 git diff -(nothing)-
7 git diff --staged -(@@ -1 +1 @@
-3
+2)-
8 sc file.txt '3'
9 git diff -(@@ -1 +1 @@
-2
+3)-
10 git diff --staged -(@@ -1 +1 @@
-3
+2)-
11 so basically it showing me the difference between the latest commit and last that what changes are happening in my case changing of numbers takes place from 2 by 3.
12 git status
13 git restore --staged file.txt
14 git status -(nothing to commit), this is because i have restore what i have done previously
15 git add -A, git commit -m "latest commit"
16 git log
18 4 now
19 modifies file.txt
20 git restore file.txt
21 3
22 nothing to commit

```

### 3)Basic Branching

```

1 git branch - master and second -branch
2 master
3 git branch mybranch
4 git branch
5 git switch mybranch -(Switched to branch 'mybranch')-
6 nothing to commit, working tree clean
7 The workspace will be updated to match the state of the branch you've switched to.
8 -
9 echo >file1.txt
10 git add file1.txt, git commit -m "file1 committed"
11 git log --oneline --graph
12 git switch master
13 -
14 echo>file2.txt
15 git log --oneline --graph --all
16 git switch mybranch
17 switched
18 diff --git a/file1.txt b/file1.txt
deleted file mode 100644
index e69de29..0000000

```

### 4)ff-merge

```

PS C:\Users\gulat\Downloads\git-katas\ff-merge> .\setup.ps1
Initialized empty Git repository in C:/Users/gulat/Downloads/git-katas/ff-merge/exercise/.git/
[master (root-commit) d660b5e] Add file greeting.txt
 1 file changed, 1 insertion(+)
 create mode 100644 greeting.txt
[master 07a1e9c] Add content to greeting.txt
 1 file changed, 1 insertion(+), 1 deletion(-)
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> dir

  Directory: C:\Users\gulat\Downloads\git-katas\ff-merge\exercise

Mode                 LastWriteTime       Length Name
----                 -              -----  -
-a----      12-10-2023     09:52            7 greeting.txt

PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> notepad C:\Users\gulat\Downloads\git-katas\ff-merge\exercise\greeting.txt
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> git branch
* master
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> git branch feature/uppercase
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> git switch feature/uppercase
Switched to branch 'feature/uppercase'
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> git status
On branch feature/uppercase
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> sc greeting.txt "HELLO"
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> git add -A
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> git commit -m "uppercase done commit"
[feature/uppercase 1082cc7] uppercase done commit

```

```

PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> git branch
* feature/uppercase
  master
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> git log --oneline --graph --all
* 1082cc7 (HEAD -> feature/uppercase) uppercase done commit
* 07a1e9c (master) Add content to greeting.txt
* d660b5e Add file greeting.txt
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> git switch master
Switched to branch 'master'
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> cat greeting.txt
Hello
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> git diff
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> git merge greeting.txt
merge: greeting.txt - not something we can merge
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> git merge feature/uppercase
Updating 07a1e9c...1082cc7
Fast-forward
 greeting.txt | 2 ++
 1 file changed, 1 insertion(+), 1 deletion(-)
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> cat greeting.txt
HELLO
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> git branch -d feature/uppercase
Deleted branch feature/uppercase (was 1082cc7).
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> git branch
* master
PS C:\Users\gulat\Downloads\git-katas\ff-merge\exercise> Edit the greeting.txt to contain an uppercase greeting^

```

## 5)3-way-merge

```

PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> git branch greeting
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> git switch greeting
Switched to branch 'greeting'
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> sc greeting.txt "hi how you doing"
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> git add -A
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> git commit -m "personal greeting done"
[greeting d06fd95] personal greeting done
 1 file changed, 1 insertion(+), 1 deletion(-)
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> git switch master
Switched to branch 'master'

PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> New-Item -ItemType file README.md

Directory: C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise

Mode                LastWriteTime        Length Name
----                -----          ----  --
-a---      12-10-2023     10:05            0 README.md

PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> notepad README.md
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> notepad README.md
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise>
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> git add -A
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> git commit -m "master commit done"
[master c3b8e87] master commit done
 1 file changed, 1 insertion(+)
  create mode 100644 README.md
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> git log --oneline --graph--all
fatal: unrecognized argument: --graph-all
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> git log --oneline --graph --all
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> git log --oneline --graph--all
fatal: unrecognized argument: --graph-all
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> git log --oneline --graph --all
* c3b8e87 (HEAD -> master) master commit done
| * d06fd95 (greeting) personal greeting done
|/
* f5ca2de Add content to greeting.txt
* 9b9bfd9 Add file greeting.txt
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> git diff master..README.md
fatal: ambiguous argument 'master..README.md': unknown revision or path not in the working tree.
Use '--' to separate paths from revisions, like this:
'git <command> [<revision>...] -- [<file>...]'
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> git switch master
Already on 'master'
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> git merge greeting
Merge made by the 'ort' strategy.
  greeting.txt | 2 ++
  1 file changed, 1 insertion(+), 1 deletion(-)
PS C:\Users\gulat\Downloads\git-katas\3-way-merge\exercise> git log --oneline --graph --all
* 5e95238 (HEAD -> master) Merge branch 'greeting'
|\
| * d06fd95 (greeting) personal greeting done
* | c3b8e87 master commit done
|/
* f5ca2de Add content to greeting.txt
* 9b9bfd9 Add file greeting.txt

```

## 6)merge-conflict

```

PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> dir

Directory: C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise

Mode                LastWriteTime       Length Name
----              - - - - - - - - - - - - - - - - -
-a--- 12-10-2023    10:12            33 file.txt
-a--- 12-10-2023    10:12             7 greeting.txt

PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git branch
* master
  merge-conflict-branch1
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git switch master
Already on 'master'
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git merge merge-conflict-branch1
Auto-merging file.txt
CONFLICT (add/add): Merge conflict in file.txt
Automatic merge failed; fix conflicts and then commit the result.
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git status
On branch master
You have unmerged paths.
  (fix conflicts and run "git commit")
  (use "git merge --abort" to abort the merge)

Unmerged paths:
  (use "git add <file>..." to mark resolution)
    both added:      file.txt

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git switch merge-conflict-branch1
fatal: cannot switch branch while merging
Consider "git merge --quit" or "git worktree add".
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git merge --quit
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git switch merge-conflict-branch1
error: you need to resolve your current index first
file.txt: needs merge

```

```
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> notepad file.txt
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> notepad greeting.txt
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git status
On branch master
Unmerged paths:
  (use "git restore --staged <file>..." to unstage)
  (use "git add <file>..." to mark resolution)
    both added:      file.txt

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git restore --staged file.txt
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> notepad greeting.txt
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> notepad file.txt
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git status
On branch master
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:      file.txt

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git add file.txt
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git commit -m "file committed"
[master b1798f5] file committed
  1 file changed, 4 insertions(+)
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git switch master
Already on 'master'
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git merge merge-conflict-branch1
Auto-merging file.txt
CONFLICT (add/add): Merge conflict in file.txt
Automatic merge failed; fix conflicts and then commit the result.
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git status
On branch master
You have unmerged paths.
  (fix conflicts and run "git commit")
  (use "git merge --abort" to abort the merge)
```

```
no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git merge --abort
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git switch merge-conflict-branch1
switched to branch 'merge-conflict-branch1'
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git status
On branch merge-conflict-branch1
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> notepad file.txt
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git switch master
fatal: invalid reference: masetr
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git switch master
Switched to branch 'master'
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> notepad file.txt
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git add -A
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git commit -m "2nd attemp"
[master b2d5dc8] 2nd attemp
  1 file changed, 3 insertions(+), 3 deletions(-)
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git switch master
Already on 'master'
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git merge merge-conflict-branch1
Auto-merging file.txt
CONFLICT (add/add): Merge conflict in file.txt
Automatic merge failed; fix conflicts and then commit the result.
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git status
On branch master
You have unmerged paths.
  (fix conflicts and run "git commit")
  (use "git merge --abort" to abort the merge)

Unmerged paths:
  (use "git add <file>..." to mark resolution)
    both added:      file.txt

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git checkout master
error: you need to resolve your current index first
file.txt: needs merge
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git merge --abort
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git checkout master
Already on 'master'
```

```
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git merge --abort
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git checkout master
Already on 'master'
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git merge merge-conflict-branch1
Auto-merging file.txt
CONFLICT (add/add): Merge conflict in file.txt
Automatic merge failed; fix conflicts and then commit the result.
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git status
On branch master
You have unmerged paths.
  (fix conflicts and run "git commit")
  (use "git merge --abort" to abort the merge)

Unmerged paths:
  (use "git add <file>..." to mark resolution)
    both added:      file.txt

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> notepad file.txt
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git add file.txt
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git commit -m "3rd attempt"
[master b66563a] 3rd attempt
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git log --oneline --graph
* b66563a (HEAD -> master) 3rd attempt
|\ 
| * 7859949 (merge-conflict-branch1) add relevant fact
* | b2d5dc8 2nd attemp
* | b1798f5 file committed
* | ef35b09 add indispensable truth!
|/
* 4b63652 Add content to greeting.txt
* 7c148c6 Add file greeting.txt
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git switch master
Already on 'master'
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise> git merge merge-conflict-branch1
Already up to date.
PS C:\Users\gulat\Downloads\git-katas\merge-conflict\exercise>
```

## 7)merge-mergesort

```
Directory: C:\Users\gulat\Downloads\git-katas\merge-mergesort\exercise
```

Mode	LastWriteTime	Length	Name
-a---	11-10-2023 13:26	1031	mergesort.py

```
PS C:\Users\gulat\Downloads\git-katas\merge-mergesort\exercise> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\merge-mergesort\exercise> git branch
  Mergesort-Impl
* master
PS C:\Users\gulat\Downloads\git-katas\merge-mergesort\exercise> git merge Mergesort-Impl
Auto-merging mergesort.py
CONFLICT (content): Merge conflict in mergesort.py
Automatic merge failed; fix conflicts and then commit the result.
PS C:\Users\gulat\Downloads\git-katas\merge-mergesort\exercise> git status
On branch master
You have unmerged paths.
  (fix conflicts and run "git commit")
    (use "git merge --abort" to abort the merge)

Unmerged paths:
  (use "git add <file>..." to mark resolution)
    both modified:   mergesort.py

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

PS C:\Users\gulat\Downloads\git-katas\merge-mergesort\exercise> git diff
diff --cc mergesort.py
index 646b20f,9de927a..0000000
--- a/mergesort.py
+++ b/mergesort.py
PS C:\Users\gulat\Downloads\git-katas\merge-mergesort\exercise> git status
```

```

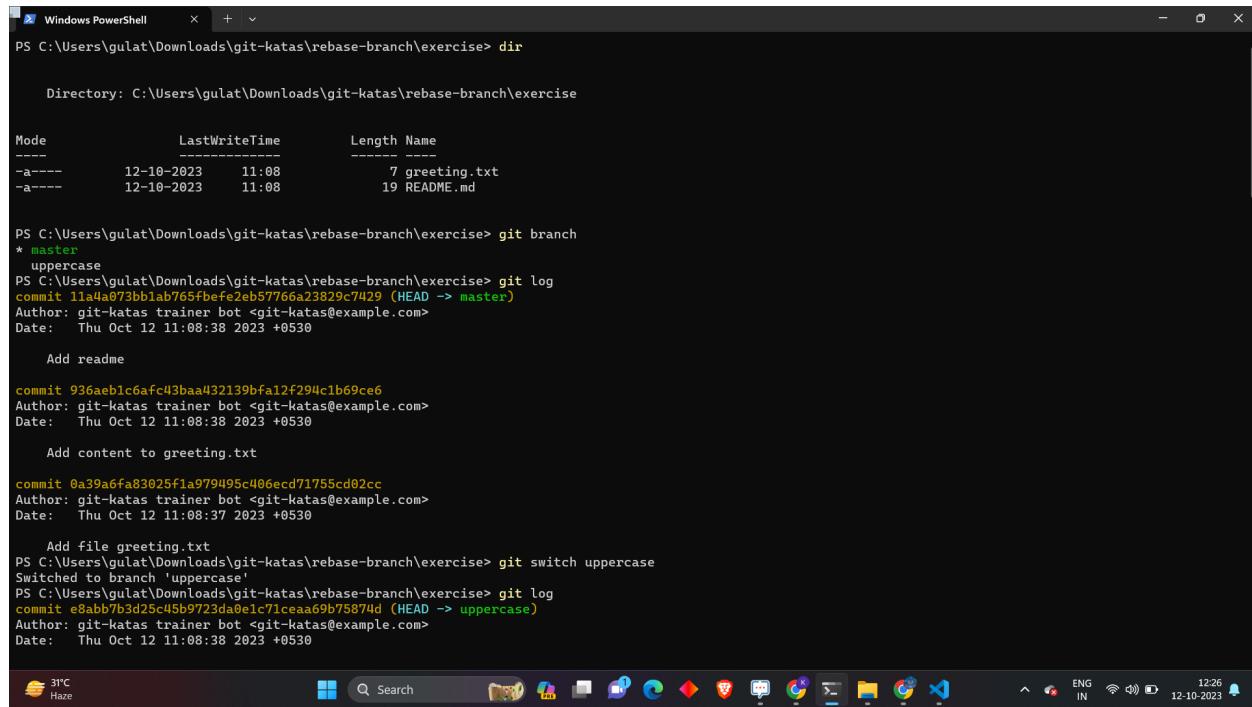
On branch master
You have unmerged paths.
  (fix conflicts and run "git commit")
  (use "git merge --abort" to abort the merge)

Unmerged paths:
  (use "git add <file>..." to mark resolution)
    both modified:  mergesort.py

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\gulat\Downloads\git-katas\merge-mergesort\exercise> git add mergesort.py
PS C:\Users\gulat\Downloads\git-katas\merge-mergesort\exercise> git commit -m "comit done"
[master e9d96cb] comit done
PS C:\Users\gulat\Downloads\git-katas\merge-mergesort\exercise> git merge Mergesort-Impl
merge: Mergesort-Impl - not something we can merge
PS C:\Users\gulat\Downloads\git-katas\merge-mergesort\exercise> git merge Mergesort-Impl
Already up to date.
PS C:\Users\gulat\Downloads\git-katas\merge-mergesort\exercise> git log --oneline --graph --all
*   e9d96cb (HEAD -> master) comit done
  \
  | * 15c7ead (Mergesort-Impl) Mergesort implemented on feature branch
* | 9b1b261 Mergesort implemented on master
  |
* b7cc2e8 Fake it till you make it - Faking mergesort using python .sort() method
PS C:\Users\gulat\Downloads\git-katas\merge-mergesort\exercise> git status
On branch master
nothing to commit, working tree clean

```

## 8)rebase-branch



```

Windows PowerShell
PS C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise> dir

Directory: C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise

Mode                LastWriteTime         Length Name
----                -----          ---- 
-a----       12-10-2023     11:08            7 greeting.txt
-a----       12-10-2023     11:08           19 README.md

PS C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise> git branch
* master
  uppercase
PS C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise> git log
commit 11a4a073bb1ab765fbefef2eb57766a23829c7429 (HEAD -> master)
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 11:08:38 2023 +0530

  Add readme

commit 936aeb1c6afc43baa432139bfa12f294c1b69ce6
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 11:08:38 2023 +0530

  Add content to greeting.txt

commit 0a39a6fa03025f1a979495c406ecd71755cd02c
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 11:08:37 2023 +0530

  Add file greeting.txt
PS C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise> git switch uppercase
Switched to branch 'uppercase'
PS C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise> git log
commit e8abb7b3d25c45b9723da0e1c71ceaa69b75874d (HEAD -> uppercase)
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 11:08:38 2023 +0530

```

```
Windows PowerShell

Change greeting to uppercase

commit 11a4a073bb1ab765fbefeb57766a23829c7429 (master)
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 11:08:38 2023 +0530

Add readme

commit 936aebe1c6afc43baa432139bfa12f294c1b69ce6
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 11:08:38 2023 +0530

Add content to greeting.txt

commit 0a39a6fa83025f1a9779495c406ecd71755cd02cc
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 11:08:37 2023 +0530

Add file greeting.txt
PS C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise> git switch master
Switched to branch 'master'
PS C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise> git log
commit 11a4a073bb1ab765fbefeb57766a23829c7429 (HEAD -> master)
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 11:08:38 2023 +0530

Add readme

commit 936aebe1c6afc43baa432139bfa12f294c1b69ce6
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 11:08:38 2023 +0530

Add content to greeting.txt

commit 0a39a6fa83025f1a9779495c406ecd71755cd02cc
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 11:08:37 2023 +0530

Add file greeting.txt
```

```
Windows PowerShell

Change greeting to uppercase

commit 936aebe1c6afc43baa432139bfa12f294c1b69ce6
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 11:08:38 2023 +0530

Add content to greeting.txt

commit 0a39a6fa83025f1a9779495c406ecd71755cd02cc
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 11:08:37 2023 +0530

Add file greeting.txt
PS C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise> git rebase masetr
fatal: invalid upstream 'masetr'
PS C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise> git rebase master
Successfully rebased and updated refs/heads/uppercase.
PS C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise> git log
git: The term 'git' is not recognized as the name of a cmdlet, function,
script file, or operable program. Check the spelling of the name, or if a
path was included, verify that the path is correct and try again.
At line:1 char:1
+ git log
+ ~~~
+ CategoryInfo          : ObjectNotFound: (git:String) [], CommandNot
oundException
+ FullyQualifiedErrorId : CommandNotFoundException

PS C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise> git lo
git: 'lo' is not a git command. See 'git --help'.

The most similar commands are
    log
    flow
PS C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise> git log
commit 125ad49e5c0630131139e6d4863581631dce64e (HEAD -> uppercase)
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 11:08:38 2023 +0530
```

```

Windows PowerShell
Author: git-katas trainer bot <git-katas@example.com>
Date: Thu Oct 12 11:08:37 2023 +0530

Add file greeting.txt
PS C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise> git log --oneline --graph
* 11a4a07 (HEAD -> master) Add readme
* 936aebe Add content to greeting.txt
* 0a39a6f Add file greeting.txt
PS C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise> git merge uppercase
Updating 11a4a07..125ad49
Fast-forward
  greeting.txt | 2 ++
  1 file changed, 1 insertion(+), 1 deletion(-)
PS C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise> git log
commit 125ad49e5c0630131139e6d863581631dce64e (HEAD -> master, uppercase)
Author: git-katas trainer bot <git-katas@example.com>
Date: Thu Oct 12 11:08:38 2023 +0530

Change greeting to uppercase

commit 11a4a073bbab765fbefef2eb57766a23829c7429
Author: git-katas trainer bot <git-katas@example.com>
Date: Thu Oct 12 11:08:38 2023 +0530

Add readme

commit 936aebe1c6afc43baa432139bfa12f294c1b69ce6
Author: git-katas trainer bot <git-katas@example.com>
Date: Thu Oct 12 11:08:38 2023 +0530

Add content to greeting.txt

commit 0a39a6fa83025f1a979495c406ecd71755cd02cc
Author: git-katas trainer bot <git-katas@example.com>
Date: Thu Oct 12 11:08:37 2023 +0530

Add file greeting.txt
PS C:\Users\gulat\Downloads\git-katas\rebase-branch\exercise> git status
On branch master
nothing to commit, working tree clean

```

## 9)basic-revert

```

Windows PowerShell
PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise> git log --oneline
701fdbf (HEAD -> master) Overwrite greeting.txt
9bd13cb Add content to greeting.txt
13d26c4 Add credentials to repository
998ef1b Add file greeting.txt
PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise> notepad C:\Users\gulat\Downloads\git-katas\basic-revert\exercise\greeting.txt
PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise> git revert 701fdbf
hint: Waiting for your editor to close the file... unix2dos: converting file C:/Users/gulat/Downloads/git-katas/basic-revert/exercise/.git/COMMIT_EDITMSG to
      DOS format...
PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise> git log --oneline
701fdbf (HEAD -> master) Overwrite greeting.txt
9bd13cb Add content to greeting.txt
13d26c4 Add credentials to repository
998ef1b Add file greeting.txt
PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise> notepad C:\Users\gulat\Downloads\git-katas\basic-revert\exercise\greeting.txt
PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise> dir      converting file C:/Users/gulat/Downloads/git-katas/basic-revert/exercise/.git/COMMIT_
EDITMSG to Unix format...
Directory: C:\Users\gulat\Downloads\git-katas\basic-revert\exercise
1 file changed, 1 insertion(+), 1 deletion(-)

Mode           LastWriteTime       Length Name
----           -----          ---- -
-a---        12-10-2023     12:29            21 credentials.txt
-a---        12-10-2023     12:34            23 greeting.txt

PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise> dir

Directory: C:\Users\gulat\Downloads\git-katas\basic-revert\exercise

Mode           LastWriteTime       Length Name
----           -----          ---- -
-a---        12-10-2023     12:29            21 credentials.txt
-a---        12-10-2023     12:34            23 greeting.txt

PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise> git log --oneline
a1d9d1e (HEAD -> master) Revert "Overwrite greeting.txt"

```

```
Windows PowerShell x + - PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise> git revert a1d9d1e
hint: Waiting for your editor to close the file... unix2dos: converting file C:/Users/gulat/Downloads/git-katas/basic-revert/exercise/.git/COMMIT_EDITMSG to DOS format...
dos2unix: converting file C:/Users/gulat/Downloads/git-katas/basic-revert/exercise/.git/COMMIT_EDITMSG to Unix format...
[master f4e9a5c] Revert "Revert "Overwrite greeting.txt"""
1 file changed, 1 insertion(+), 1 deletion(-)
PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise> git log --oneline
fatal: unrecognized argument: --oneline
PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise> git log --oneline
f4e9a5c (HEAD -> master) Revert "Revert "Overwrite greeting.txt"""
a1d9d1e Revert "Overwrite greeting.txt"
701fd0f Overwrite greeting.txt
9bd13c8 Add content to greeting.txt
13d26c4 Add credentials to repository
998ef1b Add file greeting.txt
PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise> dir

Directory: C:\Users\gulat\Downloads\git-katas\basic-revert\exercise

Mode LastWriteTime Length Name
---- -- 21 credentials.txt
-a--- 12-10-2023 12:29
-a--- 12-10-2023 12:35 84 greeting.txt

PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise> git show
commit f4e9a5c731eb50a25536a4ae5a9fa3f13301ad29 (HEAD -> master)
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 12:35:58 2023 +0530

    Revert "Revert "Overwrite greeting.txt"""

    This reverts commit a1d9d1ecfe9197b4e61464686ab515326d2cf034.

diff --git a/greeting.txt b/greeting.txt
index 899f48c..625a76d 100644
+-----+
@@ -1 +1 @@
-Original File Content
+This should have been appended to the original content, rather than overwriting it
PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise>
```

```
Windows PowerShell x + - PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise> git log --oneline
f4e9a5c (HEAD -> master) Revert "Revert "Overwrite greeting.txt"""
a1d9d1e Revert "Overwrite greeting.txt"
701fd0f Overwrite greeting.txt
9bd13c8 Add content to greeting.txt
13d26c4 Add credentials to repository
998ef1b Add file greeting.txt
PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise> dir

Directory: C:\Users\gulat\Downloads\git-katas\basic-revert\exercise

Mode LastWriteTime Length Name
---- --
-a--- 12-10-2023 12:29 21 credentials.txt
-a--- 12-10-2023 12:35 84 greeting.txt

PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise> git show
commit f4e9a5c731eb50a25536a4ae5a9fa3f13301ad29 (HEAD -> master)
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 12:35:58 2023 +0530

    Revert "Revert "Overwrite greeting.txt"""

    This reverts commit a1d9d1ecfe9197b4e61464686ab515326d2cf034.

diff --git a/greeting.txt b/greeting.txt
index 899f48c..625a76d 100644
--- a/greeting.txt
+++ b/greeting.txt
@@ -1 +1 @@
-Original File Content
+This should have been appended to the original content, rather than overwriting it
PS C:\Users\gulat\Downloads\git-katas\basic-revert\exercise>
```

10)reset

```

Windows PowerShell x + 
PS C:\Users\gulat\Downloads\git-katas\reset\exercise> dir

Directory: C:\Users\gulat\Downloads\git-katas\reset\exercise

Mode                LastWriteTime     Length Name
----                -----        ---- 
-a----       12-10-2023 13:00          3 1.txt
-a----       12-10-2023 13:00          4 10.txt
-a----       12-10-2023 13:00          3 2.txt
-a----       12-10-2023 13:00          3 3.txt
-a----       12-10-2023 13:00          3 4.txt
-a----       12-10-2023 13:00          3 5.txt
-a----       12-10-2023 13:00          3 6.txt
-a----       12-10-2023 13:00          3 7.txt
-a----       12-10-2023 13:00          3 8.txt
-a----       12-10-2023 13:00          3 9.txt

PS C:\Users\gulat\Downloads\git-katas\reset\exercise> git log --oneline
cd9db53 (HEAD -> master) 10
ef48d23 9
07318b4 8
b1763c5 7
e00de67 6
20a88e6 5
e6738e8 4
e290f3b 3
82e09b2 2
73b7323 1
PS C:\Users\gulat\Downloads\git-katas\reset\exercise> git reset --soft HEAD~1
PS C:\Users\gulat\Downloads\git-katas\reset\exercise> git log --oneline
ef48d23 (HEAD -> master) 9
07318b4 8
b1763c5 7
e00de67 6
20a88e6 5
e6738e8 4
e290f3b 3
82e09b2 2
73b7323 1
PS C:\Users\gulat\Downloads\git-katas\reset\exercise> git log --oneline
e290f3b 3
82e09b2 2
73b7323 1
PS C:\Users\gulat\Downloads\git-katas\reset\exercise> git reset --mixed HEAD~1
PS C:\Users\gulat\Downloads\git-katas\reset\exercise> git log --oneline
07318b4 (HEAD -> master) 8
b1763c5 7
e00de67 6
20a88e6 5
e6738e8 4
e290f3b 3
82e09b2 2
73b7323 1
PS C:\Users\gulat\Downloads\git-katas\reset\exercise> git reset --hard HEAD~1
HEAD is now at b1763c5 7
PS C:\Users\gulat\Downloads\git-katas\reset\exercise> git log --oneline
b1763c5 (HEAD -> master) 7
e00de67 6
20a88e6 5
e6738e8 4
e290f3b 3
82e09b2 2
73b7323 1
PS C:\Users\gulat\Downloads\git-katas\reset\exercise> git revert HEAD ~1
fatal: bad revision '-1'
PS C:\Users\gulat\Downloads\git-katas\reset\exercise> git revert HEAD~1
hint: Waiting for your editor to close the file... unix2dos: converting file C:/Users/gulat/Downloads/git-katas/reset/exercise/.git/COMMIT_EDITMSG to DOS fo
rmat...
dos2unix: converting file C:/Users/gulat/Downloads/git-katas/reset/exercise/.git/COMMIT_EDITMSG to Unix format...
[master ab2e78e] Revert "6"
 1 file changed, 1 deletion(-)
 delete mode 100644 6.txt
PS C:\Users\gulat\Downloads\git-katas\reset\exercise> git log --oneline
ab2e78e (HEAD -> master) Revert "6"
b1763c5 7
e00de67 6
20a88e6 5
e6738e8 4
e290f3b 3
82e09b2 2

```

## 11)basic-cleaning

```
Windows PowerShell x + 
PS C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise> dir

Directory: C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise

Mode                LastWriteTime     Length Name
----                -----        ---- 
d----       12-10-2023    13:47          obj
d----       12-10-2023    13:47          src
-a----      12-10-2023    13:47         25 README.txt
-a----      12-10-2023    13:47         2 README.txt~

PS C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise> ls -R

Directory: C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise

Mode                LastWriteTime     Length Name
----                -----        ---- 
d----       12-10-2023    13:47          obj
d----       12-10-2023    13:47          src
-a----      12-10-2023    13:47         25 README.txt
-a----      12-10-2023    13:47         2 README.txt~

Directory:
C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise\obj

Mode                LastWriteTime     Length Name
----                -----        ---- 
-a----      12-10-2023    13:47         2 a.out
-a----      12-10-2023    13:47         2 myapp.o
-a----      12-10-2023    13:47         2 mylib.a
-a----      12-10-2023    13:47         2 mylib.o

32°C Haze
```

```
Windows PowerShell x + 
PS C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise> git clean -n
Would remove README.txt~
Would remove src/myapp.c~
Would remove src/mylib.c
Would remove src/oldfile.c~
PS C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise> git add src/mylib.c
PS C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise> git clean -n
Would remove README.txt~
Would remove src/myapp.c~
Would remove src/oldfile.c~
PS C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise> git clean -n -d
Would remove README.txt~
Would remove obj/
Would remove src/myapp.c~
Would remove src/oldfile.c~
PS C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise> git clean -f -d
Removing README.txt~
Removing obj/
Removing src/myapp.c~
Removing src/oldfile.c~
PS C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise> dir

Directory: C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise

Mode                LastWriteTime     Length Name
----                -----        ---- 
d----       12-10-2023    13:47          src
-a----      12-10-2023    13:47         25 README.txt

PS C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise> ls -R

Directory: C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise

32°C Haze
```

```

Windows PowerShell x + -
Removing obj/
Removing src/myapp.c~
Removing src/oldfile.c~
PS C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise> dir

Directory: C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise

Mode                LastWriteTime         Length Name
----                -----        ----- 
d----          12-10-2023     13:47            src
-a---          12-10-2023     13:47           25 README.txt

PS C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise> ls -R

Directory: C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise

Mode                LastWriteTime         Length Name
----                -----        ----- 
d----          12-10-2023     13:47            src
-a---          12-10-2023     13:47           25 README.txt

Directory:
C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise\src

Mode                LastWriteTime         Length Name
----                -----        ----- 
-a---          12-10-2023     13:47          19 myapp.c
-a---          12-10-2023     13:47          21 myapp.h
-a---          12-10-2023     13:47          23 mylib.c

PS C:\Users\gulat\Downloads\git-katas\basic-cleaning\exercise>


32°C Haze ENG IN 14:25 12-10-2023

```

## 12)amend

```

Windows PowerShell x + -
PS C:\Users\gulat\Downloads\git-katas\amend\exercise> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\amend\exercise> git log -p
commit 900004591820c14b5c326c37639d117224778e9e (HEAD -> master)
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 14:33:45 2023 +0530

    feature 734

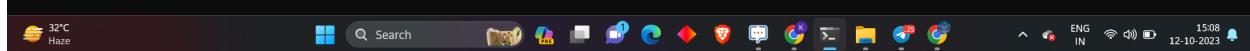
diff --git a/bar.txt b/bar.txt
new file mode 100644
index 0000000..5716ca5
--- /dev/null
+++ b/bar.txt
@@ -0,0 +1 @@
+bar
diff --git a/foo.txt b/foo.txt
new file mode 100644
index 0000000..257cc56
--- /dev/null
+++ b/foo.txt
@@ -0,0 +1 @@
+foo
PS C:\Users\gulat\Downloads\git-katas\amend\exercise> git commit --amend
hint: Waiting for your editor to close the file... unix2dos: converting file C:/Users/gulat/Downloads/git-katas/amend/exercise/.git/COMMIT_EDITMSG to DOS format...
dos2unix: converting file C:/Users/gulat/Downloads/git-katas/amend/exercise/.git/COMMIT_EDITMSG to Unix format...
[master 9392c2c] feature 73
Date: Thu Oct 12 14:33:45 2023 +0530
2 files changed, 2 insertions(+)
create mode 100644 bar.txt
create mode 100644 foo.txt
PS C:\Users\gulat\Downloads\git-katas\amend\exercise> git log -p
commit 9392c2c7e11847dc589b421c88bd7038a1a5d32 (HEAD -> master)
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 14:33:45 2023 +0530

    feature 73

diff --git a/bar.txt b/bar.txt
new file mode 100644

32°C Haze ENG IN 15:08 12-10-2023

```



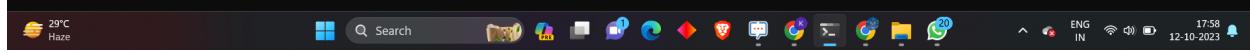
```

Windows PowerShell
hint: Waiting for your editor to close the file... unix2dos: converting file C:/Users/gulat/Downloads/git-katas/amend/exercise/.git/COMMIT_EDITMSG to DOS format...
dos2unix: converting file C:/Users/gulat/Downloads/git-katas/amend/exercise/.git/COMMIT_EDITMSG to Unix format...
[master 9392cc2] feature 73
Date: Thu Oct 12 14:33:45 2023 +0530
2 files changed, 2 insertions(+)
create mode 100644 bar.txt
create mode 100644 foo.txt
PS C:\Users\gulat\Downloads\git-katas\amend\exercise> git log -p
commit 9392cc2cfe1047de589b41ec88bd038a1a5d32 [HEAD -> master]
Author: git-katas trainer bot <git-katas@example.com>
Date: Thu Oct 12 14:33:45 2023 +0530

    feature 73

diff --git a/bar.txt b/bar.txt
new file mode 100644
index 000000..5716ca5
--- /dev/null
+++ b/bar.txt
@@ -0,0 +1 @@
+bar
diff --git a/foo.txt b/foo.txt
new file mode 100644
index 000000..257cc56
--- /dev/null
+++ b/foo.txt
@@ -0,0 +1 @@
+foo
PS C:\Users\gulat\Downloads\git-katas\amend\exercise> git commit --amend
hint: Waiting for your editor to close the file... unix2dos: converting file C:/Users/gulat/Downloads/git-katas/amend/exercise/.git/COMMIT_EDITMSG to DOS format...
dos2unix: converting file C:/Users/gulat/Downloads/git-katas/amend/exercise/.git/COMMIT_EDITMSG to Unix format...
[master 82f304f] feature 73
Date: Thu Oct 12 14:33:45 2023 +0530
2 files changed, 2 insertions(+)
create mode 100644 bar.txt
create mode 100644 foo.txt
PS C:\Users\gulat\Downloads\git-katas\amend\exercise>
```

### 13)reorder-the-history



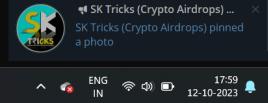
```

Windows PowerShell
PS C:\Users\gulat\Downloads\git-katas\reorder-the-history\exercise> dir

Directory: C:\Users\gulat\Downloads\git-katas\reorder-the-history\exercise

Mode                LastWriteTime         Length Name
----                ——————          ——— ———
-a----       12-10-2023 15:16            3 file1
-a----       12-10-2023 15:16            3 file2
-a----       12-10-2023 15:16            3 file3
-a----       12-10-2023 15:16            3 file4
-a----       12-10-2023 15:16            3 file5
-a----       12-10-2023 15:16            3 file6
-a----       12-10-2023 15:16            3 file7
-a----       12-10-2023 15:16            3 file8
-a----       12-10-2023 15:16            3 file9
-a----       12-10-2023 15:16           9 foo.txt

PS C:\Users\gulat\Downloads\git-katas\reorder-the-history\exercise> git log --oneline --graph
* 0f4280d (HEAD -> master) file7
* 859b3f9 file6
* bd09c5d file2
* 82f45c2 file5
* 82f45c2 file5
* b5bc21d file4
* 9c20f8e file3
* f45c281 file8
* bfaf17e7 file9
* 9838967 file1
* 98b7be3 foo.txt
PS C:\Users\gulat\Downloads\git-katas\reorder-the-history\exercise> git reflog
0f4280d (HEAD -> master) HEAD@{0}: commit: file7
859b3f9 HEAD@{1}: commit: file6
bd09c5d HEAD@{2}: commit: file2
82f45c2 HEAD@{3}: commit: file5
b5bc21d HEAD@{4}: commit: file4
9c20f8e HEAD@{5}: commit: file3
f45c281 HEAD@{6}: commit: file8
bfaf17e7 HEAD@{7}: commit: file9
9838967 HEAD@{8}: commit: file1
```



```

Windows PowerShell
PS C:\Users\gulat\Downloads\git-katas\reorder-the-history\exercise> git rebase -i 98b7be3
fatal: invalid upstream '98b7be3'
PS C:\Users\gulat\Downloads\git-katas\reorder-the-history\exercise> git rebase -i 98b7be3
hint: Waiting for your editor to close the file... unix2dos: converting file C:/Users/gulat/Downloads/git-katas/reorder-the-history/exercise/.git/rebase-merge/git-rebase-todo to DOS format...
dos2unix: converting file C:/Users/gulat/Downloads/git-katas/reorder-the-history/exercise/.git/rebase-merge/git-rebase-todo to Unix format...
Successfully rebased and updated refs/heads/master.
PS C:\Users\gulat\Downloads\git-katas\reorder-the-history\exercise> git log --oneline --graph
* 88ebab1 (HEAD -> master) file1
* d12a712 file2
* c9aff80 file3
* 246c97b file4
* e998a0a file5
* 40e4cc0 file6
* c612809 file7
* 299a88 file8
* 282b3d6 file9
* 98b7be3 foo.txt
PS C:\Users\gulat\Downloads\git-katas\reorder-the-history\exercise> |

```

## Advanced-rebase-concepts



```

Windows PowerShell
PS C:\Users\gulat\Downloads\git-katas\advanced-rebase-interactive\exercise> dir
Directory:
C:\Users\gulat\Downloads\git-katas\advanced-rebase-interactive\exercise

Mode                LastWriteTime         Length Name
----                -----          ----

```

```
Windows PowerShell x + 
Add doc - step 2

commit 9b1d41ae78b0775e90211a23a6f5e1383f994685
Author: git-katas trainer bot <git-katas@example.com>
Date: Thu Oct 12 18:14:15 2023 +0530

Add doc - step 1

commit 9284b0281a80e73192beac0f0692acee6747274e
Author: git-katas trainer bot <git-katas@example.com>
Date: Thu Oct 12 18:14:15 2023 +0530

    important secret

commit fec5bfccdd69e5d497aec470ed987cde85532d125
Author: git-katas trainer bot <git-katas@example.com>
Date: Thu Oct 12 18:14:14 2023 +0530

PS C:\Users\gulat\Downloads\git-katas\advanced-rebase-interactive\exercise> git show
commit c9752768f11872b0e8d921f5097903915d2999c5 (HEAD -> master)
Author: git-katas trainer bot <git-katas@example.com>
Date: Thu Oct 12 18:14:16 2023 +0530

I forgot a semicolon

diff --git a/hello.test b/hello.test
index 2cb3140..27e6bd0 100644
--- a/hello.test
+++ b/hello.test
@@ -1 +1 @@
-does_it_work(hello_code)
+does_it_work(hello_code);
PS C:\Users\gulat\Downloads\git-katas\advanced-rebase-interactive\exercise> git reflog
c975276 (HEAD -> master) HEAD@{0}: commit: I forgot a semicolon
0a16a9b HEAD@{1}: commit: Test for feature hello world
e5bc035 HEAD@{2}: commit: Add doc - step 3
355c849 HEAD@{3}: commit: Add doc - step 2
9b1d41a HEAD@{4}: commit: Add doc - step 1
9284b02 HEAD@{5}: commit: important secret
fec5bfcc HEAD@{6}: commit: debugging
91cc148 HEAD@{7}: commit: Really made the thingy done

28°C Haze 18:21 ENG IN 12-10-2023
```

```
Windows PowerShell x + 
hint: Waiting for your editor to close the file... unix2dos: converting file C:/Users/gulat/Downloads/git-katas/advanced-rebase-interactive/exercise/.git/rebase-merge/git-rebase-todo to DOS format...
dos2unix: converting file C:/Users/gulat/Downloads/git-katas/advanced-rebase-interactive/exercise/.git/rebase-merge/git-rebase-todo to Unix format...
hint: Waiting for your editor to close the file... unix2dos: converting file C:/Users/gulat/Downloads/git-katas/advanced-rebase-interactive/exercise/.git/COMMIT_EDITMSG to DOS format...
dos2unix: converting file C:/Users/gulat/Downloads/git-katas/advanced-rebase-interactive/exercise/.git/COMMIT_EDITMSG to Unix format...
[detached HEAD 3e7982e] Hello Volrd feature
Date: Thu Oct 12 18:14:14 2023 +0530
1 file changed, 1 insertion(+)
 create mode 100644 hello.code
hint: Waiting for your editor to close the file... unix2dos: converting file C:/Users/gulat/Downloads/git-katas/advanced-rebase-interactive/exercise/.git/COMMIT_EDITMSG to DOS format...
dos2unix: converting file C:/Users/gulat/Downloads/git-katas/advanced-rebase-interactive/exercise/.git/COMMIT_EDITMSG to Unix format...
[detached HEAD 693a4cc] Hello Volrd feature
Date: Thu Oct 12 18:14:14 2023 +0530
5 files changed, 7 insertions(+)
 create mode 100644 README.md
 create mode 100644 hello.code
 create mode 100644 hello.test
 create mode 100644 other.code
 create mode 100644 private.secret
Successfully rebased and updated refs/heads/master.
PS C:\Users\gulat\Downloads\git-katas\advanced-rebase-interactive\exercise> git rebase --interactive v0.0
hint: Waiting for your editor to close the file... unix2dos: converting file C:/Users/gulat/Downloads/git-katas/advanced-rebase-interactive/exercise/.git/rebase-merge/git-rebase-todo to DOS format...
dos2unix: converting file C:/Users/gulat/Downloads/git-katas/advanced-rebase-interactive/exercise/.git/rebase-merge/git-rebase-todo to Unix format...
Successfully rebased and updated refs/heads/master.
PS C:\Users\gulat\Downloads\git-katas\advanced-rebase-interactive\exercise> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\advanced-rebase-interactive\exercise> git log --oneline
693a4cc (HEAD -> master) Hello Volrd feature
f359a5e (tag: v0.0) Initial commit
PS C:\Users\gulat\Downloads\git-katas\advanced-rebase-interactive\exercise> git log --stat
commit 693a4ccdfabfe06e05\f896a067927af441a09a (HEAD -> master)
Author: git-katas trainer bot <git-katas@example.com>
Date: Thu Oct 12 18:14:14 2023 +0530

Hello Volrd feature

This commit combines multiple smaller commits into one, refactoring the "Hello World" feature, addressing debugging issues, and completing the feature's documentation

28°C Haze 18:21 ENG IN 12-10-2023
```

```
Windows PowerShell

This commit combines multiple smaller commits into one, refactoring the "Hello World" feature, addressing debugging issues, and completing the feature's documentation
. The code is now cleaner and well-documented.

Finished HW feature

Really made the thingy done

debugging

important secret

Add doc - step 1

Add doc - step 2

Add doc - step 3

Test for feature hello world

This commit combines multiple smaller commits into one, refactoring the "Hello World" feature, addressing debugging issues, and completing the feature's documentation
. The code is now cleaner and well-documented.

README.md      | 3 +++
hello.code     | 1 +
hello.test     | 1 +
other.code     | 1 +
private.secret | 1 +
5 files changed, 7 insertions(+)

commit f359a5e9402dbe436bd9ef4273666e28b07138d (tag: v0.0)
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 18:14:13 2023 +0530
PS C:\Users\gulat\Downloads\git-katas\advanced-rebase-interactive\exercise> git log --patch
commit 693a4ccbdffabfe06e05f896a062027af444a09a (HEAD -> master)
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 18:14:14 2023 +0530

Hello World feature

This commit combines multiple smaller commits into one, refactoring the "Hello World" feature, addressing debugging issues, and completing the feature's documentation

28°C Haze          Search          Task View          Start          File          Edit          Insert          Tools          View          Options          Help          ENG IN          18:21          12-10-2023
```

```
Windows PowerShell

commit 693a4ccbdffabfe06e05f896a062027af444a09a (HEAD -> master)
Author: git-katas trainer bot <git-katas@example.com>
Date:   Thu Oct 12 18:14:14 2023 +0530

Hello World feature

This commit combines multiple smaller commits into one, refactoring the "Hello World" feature, addressing debugging issues, and completing the feature's documentation
. The code is now cleaner and well-documented.

Finished HW feature

Really made the thingy done

debugging

important secret

Add doc - step 1

Add doc - step 2

Add doc - step 3

Test for feature hello world

This commit combines multiple smaller commits into one, refactoring the "Hello World" feature, addressing debugging issues, and completing the feature's documentation
. The code is now cleaner and well-documented.

diff --git a/README.md b/README.md
new file mode 100644
index 000000..288ab4f
--- /dev/null
+++ b/README.md
@@ -0,0 +1,3 @@
+THE Ultimate Hello World program
+
+This program does exactly what it says
diff --git a/hello.code b/hello.code
PS C:\Users\gulat\Downloads\git-katas\advanced-rebase-interactive\exercise>

28°C Haze          Search          Task View          Start          File          Edit          Insert          Tools          View          Options          Help          ENG IN          18:21          12-10-2023
```

Ignore

```
Windows PowerShell x + 
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> dir

Directory: C:\Users\gulat\Downloads\git-katas\ignore\exercise

Mode                LastWriteTime         Length Name
----                ——————              ——— ——
-a---       12-10-2023     18:26            7 file1.txt

PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> echo > foo.s

cmdlet Write-Output at command pipeline position 1
Supply values for the following parameters:
InputObject[0]:
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    file1.txt
    foo.s

nothing added to commit but untracked files present (use "git add" to track)
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> New-Item -Path .gitignore -ItemType "File"

Directory: C:\Users\gulat\Downloads\git-katas\ignore\exercise

Mode                LastWriteTime         Length Name
----                ——————              ——— ——
-a---       12-10-2023     18:27            0 .gitignore

PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> git status
On branch master

 28°C Haze
```

```
Windows PowerShell x + 
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    .gitignore
    file1.txt
    foo.s

nothing added to commit but untracked files present (use "git add" to track)
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> git commit -m "gitignore committed"
On branch master

Initial commit

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    .gitignore
    file1.txt
    foo.s

nothing added to commit but untracked files present (use "git add" to track)
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> git add .gitignore
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> git commit -m "gitignore committed"
[master (root-commit) edea753] gitignore committed
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 .gitignore
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> git add file1.txt
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> git commit -m "file1 committed"
error: pathspec 'committed' did not match any file(s) known to git
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> notepad C:\Users\gulat\Downloads\git-katas\ignore\exercise\.gitignore
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   file1.txt

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:   .gitignore

Untracked files:
```

```
Windows PowerShell x + 
foo.s

PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> notepad C:\Users\gulat\Downloads\git-katas\ignore\exercise\file1.txt
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:  file1.txt

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:  .gitignore
    modified:  file1.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    foo.s

PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> echo >file2.txt

cmdlet Write-Output at command pipeline position 1
Supply values for the following parameters:
InputObject[0]:
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:  file1.txt

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:  .gitignore
    modified:  file1.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    foo.s

PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> git rm --cached

28°C Haze 28°C Haze Search ENG IN 18:33 12-10-2023
```

```
Windows PowerShell x + 
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> git rm --cached file1.txt
error: the following file has staged content different from both the
file and the HEAD:
  file1.txt
(use -f to force removal)
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> git rm --cached -f file1.txt
rm 'file1.txt'
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> git status
On branch master
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:  .gitignore

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    foo.s

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> echo> file3.txt
echo> : The term 'echo>' is not recognized as the name of a cmdlet,
script file, or operable program. Check the spelling of the name, or if a path
was included, verify that the path is correct and try again.
At line:1 char:1
+ echo> file3.txt
+ ****
+     + CategoryInfo          : ObjectNotFound: (echo>:String) [], CommandNotFoundException
+     + FullyQualifiedErrorId : CommandNotFoundException

PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> echo >file3.txt

cmdlet Write-Output at command pipeline position 1
Supply values for the following parameters:
InputObject[0]:
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> notepad C:\Users\gulat\Downloads\git-katas\ignore\exercise\file3.txt
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> notepad C:\Users\gulat\Downloads\git-katas\ignore\exercise\file3.txt
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> notepad C:\Users\gulat\Downloads\git-katas\ignore\exercise\.gitignore
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> git status
On branch master
Changes not staged for commit:
```

A screenshot of a Windows desktop environment. At the top is a taskbar with various pinned icons. Below it is a Windows PowerShell window titled "Windows PowerShell". The command history shows several attempts to commit files to a Git repository, including "file3.txt" and "foo.s". It also shows the creation of a ".gitignore" file and the addition of files to the commit. The command pipeline position is noted as 1, and supply values for parameters are requested. The session ends with a "git status" command.

```

Windows PowerShell
Untracked files:
(use "git add <file>..." to include in what will be committed)
    foo.s

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> echo> file3.txt
echo> : The term 'echo>' is not recognized as the name of a cmdlet, function,
script file, or operable program. Check the spelling of the name, or if a path
was included, verify that the path is correct and try again.
At line:1 char:1
+ echo> file3.txt
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (echo>:String) [], CommandNotFoundException
+ exception
+ FullyQualifiedErrorId : CommandNotFoundException

PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> echo >file3.txt

cmdlet Write-Output at command pipeline position 1
Supply values for the following parameters:
InputObject[0]:
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> notepad C:\Users\gulat\Downloads\git-katas\ignore\exercise\file3.txt
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> notepad C:\Users\gulat\Downloads\git-katas\ignore\exercise\file3.txt
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> notepad C:\Users\gulat\Downloads\git-katas\ignore\exercise\.gitignore
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> git status
On branch master
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:   .gitignore

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    file3.txt
    foo.s

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\gulat\Downloads\git-katas\ignore\exercise> |

```

## Sub-modules

A screenshot of a Windows desktop environment. At the top is a taskbar with various pinned icons. Below it is a Windows PowerShell window titled "Windows PowerShell". The command history shows the user navigating through a sub-module named "exercise". They run "git submodule add .. /remote" followed by "git submodule add .. /remote include". The command help for "git submodule add" is then displayed, detailing options like -b, --branch, -f, --force, -q, --quiet, --progress, --reference, --dissociate, --name, and --depth. Finally, they run "git submodule add .. /remote include" again. The session ends with a "git status" command.

```

Windows PowerShell
Windows PowerShell
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> dir

Directory: C:\Users\gulat\Downloads\git-katas\submodules\exercise

Mode                LastWriteTime         Length Name
----                ——————         ——— ———
d----       13-10-2023     15:38            component
d----       13-10-2023     15:38            product
d----       13-10-2023     15:38            remote

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> git submodule add .. /remote include.
fatal: Relative path can only be used from the toplevel of the working tree
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> git submodule add .. /remote include
fatal: Relative path can only be used from the toplevel of the working tree
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> git config --global protocol.file.allow always
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> git submodule add .. /remote include
fatal: Relative path can only be used from the toplevel of the working tree
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> git submodule add .. /remote include .
usage: git submodule add [<options>] [--] <repository> [<path>]

-b, --branch <branch>      branch of repository to add as submodule
-f, --force                  allow adding an otherwise ignored submodule path
-q, --quiet                  print only error messages
--progress                  force cloning progress
--reference <repository>    reference repository
--dissociate                borrow the objects from reference repositories
--name <name>                sets the submodule's name to the given string instead of defaulting to its path
--depth <n>                  depth for shallow clones

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> dir

Directory: C:\Users\gulat\Downloads\git-katas\submodules\exercise

Mode                LastWriteTime         Length Name
----                ——————         ——— ———

```

```
Windows PowerShell x Windows PowerShell x + 
d----       13-10-2023   15:38           product
d----       13-10-2023   15:38           remote

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> cd product
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git config --global protocol.file.allow always
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git submodule add ..\remote include .
usage: git submodule add [<options>] [--] <repository> [<path>]

-b, --branch <branch> branch of repository to add as submodule
-f, --force      allow adding an otherwise ignored submodule path
-q, --quiet       print only error messages
--progress        force cloning progress
--reference <repository>
                  reference repository
--dissociate     borrow the objects from reference repositories
--name <name>    sets the submodule's name to the given string instead of defaulting to its path
--depth <n>       depth for shallow clones

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git submodule add ..\remote include
Cloning into 'C:/Users/gulat/Downloads/git-katas/submodules/exercise/product/include'...
done.
warning: in the working copy of '.gitmodules', LF will be replaced by CRLF the next time Git touches it
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   .gitmodules
    new file:   include

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> cd include
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product\include> dir

Directory:
C:\Users\gulat\Downloads\git-katas\submodules\exercise\product\include

Mode                LastWriteTime         Length Name
----                -----          ---- -
34°C Haze

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product\include> cd ..
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git diff --staged
diff --git a/.gitmodules b/.gitmodules
new file mode 100644
index 0000000..79d5c92
--- /dev/null
+++ b/.gitmodules
@@ -0,0 +1,3 @@
+[submodule "include"]
+  path = include
+  url = ../remote
diff --git a/include b/include
new file mode 160000
index 0000000..46dc4a2
--- /dev/null
+++ b/include
@@ -0,0 +1 @@
+Subproject commit 46dc4a2eb716b07f91ed90ab90b031aed84df76a
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git commit .
warning: in the working copy of '.gitmodules', LF will be replaced by CRLF the next time Git touches it
hint: Waiting for your editor to close the file... unix2dos: converting file C:/Users/gulat/Downloads/git-katas/submodules/exercise/product/.git/COMMIT_EDITMSG to Unix format...
MSG TO DOS format...
dos2unix: converting file C:/Users/gulat/Downloads/git-katas/submodules/exercise/product/.git/COMMIT_EDITMSG to Unix format...
[master 6d6afbb] subproject commit done !
 2 files changed, 4 insertions(+)
 create mode 100644 .gitmodules
 create mode 160000 include
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git log --oneline
6d6afbb (HEAD -> master) subproject commit done !
```

```
Windows PowerShell x Windows PowerShell x + 
34°C Haze

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git diff --staged
diff --git a/.gitmodules b/.gitmodules
new file mode 100644
index 0000000..79d5c92
--- /dev/null
+++ b/.gitmodules
@@ -0,0 +1,3 @@
+[submodule "include"]
+  path = include
+  url = ../remote
diff --git a/include b/include
new file mode 160000
index 0000000..46dc4a2
--- /dev/null
+++ b/include
@@ -0,0 +1 @@
+Subproject commit 46dc4a2eb716b07f91ed90ab90b031aed84df76a
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git commit .
warning: in the working copy of '.gitmodules', LF will be replaced by CRLF the next time Git touches it
hint: Waiting for your editor to close the file... unix2dos: converting file C:/Users/gulat/Downloads/git-katas/submodules/exercise/product/.git/COMMIT_EDITMSG to Unix format...
MSG TO DOS format...
dos2unix: converting file C:/Users/gulat/Downloads/git-katas/submodules/exercise/product/.git/COMMIT_EDITMSG to Unix format...
[master 6d6afbb] subproject commit done !
 2 files changed, 4 insertions(+)
 create mode 100644 .gitmodules
 create mode 160000 include
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git log --oneline
6d6afbb (HEAD -> master) subproject commit done !
```

```

Windows PowerShell x Windows PowerShell x + -
6d6afbb (HEAD -> master) subproject commit done !
82666bc Touch product header
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> cd component
cd : Cannot find path
'C:\Users\gulat\Downloads\git-katas\submodules\exercise\product\component'
because it does not exist.
At line:1 char:1
+ cd component
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (C:\Users\gulat\...oduct\com
ponent:String) [Set-Location], ItemNotFoundException
+ FullyQualifiedErrorId : PathNotFound,Microsoft.PowerShell.Commands.S
etLocationCommand

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> cd ..
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> cd component
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\component> dir

Directory:
C:\Users\gulat\Downloads\git-katas\submodules\exercise\component

Mode           LastWriteTime      Length Name
----           -----          ---- 
-a---       13-10-2023     15:38        2 component.h

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\component> git status
On branch master
Your branch is up to date with 'origin/master'.

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:   component.h

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\component> git commit -m "component edited"
On branch master

```

34°C Haze 16:41 13-10-2023

```

Windows PowerShell x Windows PowerShell x + -
On branch master
Your branch is up to date with 'origin/master'.

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:   component.h

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\component> git status
On branch master
Your branch is up to date with 'origin/master'.

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:   component.h

no changes added to commit (use "git add" and/or "git commit -a")
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\component> git push
Everything up-to-date
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\component> cd ..
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> cd product
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> dir

Directory:
C:\Users\gulat\Downloads\git-katas\submodules\exercise\product

Mode           LastWriteTime      Length Name
----           -----          ---- 
d---       13-10-2023     15:39        include
-a---       13-10-2023     15:39        55 .gitmodules
-a---       13-10-2023     15:38        2 product.h

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git pull
There is no tracking information for the current branch.
Please specify which branch you want to merge with.


```

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```
Windows PowerShell x Windows PowerShell x + 
See git-pull(1) for details.

git pull <remote> <branch>

If you wish to set tracking information for this branch you can do so with:

git branch --set-upstream-to=<remote>/<branch> master

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git pull
There is no tracking information for the current branch.
Please specify which branch you want to merge with.
See git-pull(1) for details.

git pull <remote> <branch>

If you wish to set tracking information for this branch you can do so with:

git branch --set-upstream-to=<remote>/<branch> master

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git status
On branch master
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git diff
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> cd ..
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> cd include
cd : Cannot find path
'C:\Users\gulat\Downloads\git-katas\submodules\exercise\include' because
it does not exist.
At line:1 char:1
+ cd include
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (C:\Users\gulat\...xercise\i
nclude:String) [Set-Location], ItemNotFoundException
+ FullyQualifiedErrorId : PathNotFound,Microsoft.PowerShell.Commands.S
etLocationCommand

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> cd product\include
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product\include> dir

34°C Haze 16:42 13-10-2023
```

```
Windows PowerShell x Windows PowerShell x + 
Directory:
C:\Users\gulat\Downloads\git-katas\submodules\exercise\product\include

Mode           LastWriteTime      Length Name
----           -----          ---- 
-a---       13-10-2023     15:39    2 component.h

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product\include> git add .
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product\include> git commit -m "done2"
On branch master
Your branch is up to date with 'origin/master'.

nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product\include> git push origin master
Everything up-to-date
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product\include> ccd ../..
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> dir

Directory: C:\Users\gulat\Downloads\git-katas\submodules\exercise

Mode           LastWriteTime      Length Name
----           -----          ---- 
d----       13-10-2023     15:38    component
d----       13-10-2023     15:39    product
d----       13-10-2023     15:38    remote

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> git clone product product_alpha
Cloning into 'product_alpha'...
done.
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> cd ./product_alpha
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha> dir

Directory:
34°C Haze 16:42 13-10-2023
```

```
Windows PowerShell x Windows PowerShell x + 
Directory: C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha\include
Mode LastWriteTime Length Name
-- -- -- -- -- --
-a--- 13-10-2023 16:37 2 component.h

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha\include> cd ..
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha> cd ..
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> cd product
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> dir

Directory:
C:\Users\gulat\Downloads\git-katas\submodules\exercise\product

Mode LastWriteTime Length Name
-- -- -- -- -- --
d--- 13-10-2023 15:39 include
-a--- 13-10-2023 15:39 55 .gitmodules
-a--- 13-10-2023 15:38 2 product.h

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> cd ../..
PS C:\Users\gulat\Downloads\git-katas\submodules> cd exercise
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> cd ..\product_alpha\
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha> dir

Directory:
C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha

Mode LastWriteTime Length Name
-- -- -- -- -- --
d--- 13-10-2023 16:37 include
-a--- 13-10-2023 16:35 58 .gitmodules

34°C Haze  Search ENG IN 1642 13-10-2023
```

```
Windows PowerShell x Windows PowerShell x + 
Directory:
C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha

Mode LastWriteTime Length Name
-- -- -- -- -- --
d--- 13-10-2023 16:37 include
-a--- 13-10-2023 16:35 58 .gitmodules
-a--- 13-10-2023 16:35 2 product.h

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha> cd ..
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> cd product
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> dir

Directory:
C:\Users\gulat\Downloads\git-katas\submodules\exercise\product

Mode LastWriteTime Length Name
-- -- -- -- -- --
d--- 13-10-2023 15:39 include
-a--- 13-10-2023 15:39 55 .gitmodules
-a--- 13-10-2023 15:38 2 product.h

PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git coomit .
git: 'coomit' is not a git command. See 'git --help'.

The most similar command is
    commit
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git commit .
On branch master
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> cd ..
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> cd ..\product_alpha\
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha> dir

34°C Haze  Search ENG IN 1642 13-10-2023
```

```
Windows PowerShell x Windows PowerShell x + 
git: 'coomit' is not a git command. See 'git --help'.
The most similar command is
    commit
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> git commit .
On branch master
nothing to commit, working tree clean
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product> cd ..
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise> cd ..\product_alpha\
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha> dir

Directory:
C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha

Mode                LastWriteTime      Length Name
----                -----          ---- 
d----
```

Mode	LastWriteTime	Length	Name
d----	13-10-2023 16:37		include
-a---	13-10-2023 16:35	58	.gitmodules
-a---	13-10-2023 16:35	2	product.h

```
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha> git submodule update
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha> git submodule update
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha> git submodule status
46dc4a2eb716b07f91ed90ab90b031aed84df76a include (heads/master)
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha> git submodule update --remote
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha> git submodule status
46dc4a2eb716b07f91ed90ab90b031aed84df76a include (heads/master)
PS C:\Users\gulat\Downloads\git-katas\submodules\exercise\product_alpha>
```