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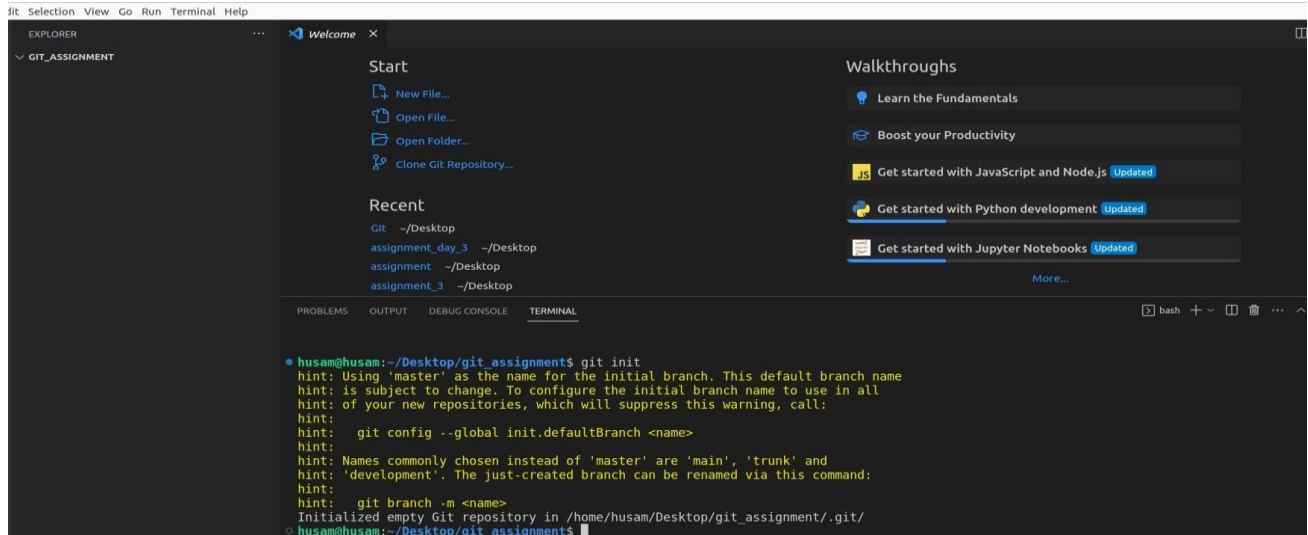
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ASSIGNMENT_Day_3

- 1.Create a new git repository in a local directory.
- 2.Create an empty file “numbers.txt” and commit it to the current (“main” or “master”) branch.
- 3.Create two new branches: “odd” and “even”.
- 4.Switch to the “odd” branch.
- 5.Edit the “numbers.txt” file by adding some odd numbers, then commit the change.
- 6.Switch to the “even” branch.
- 7.Edit the “numbers.txt” file by adding some even numbers, then commit the change.
- 8.Switch to the main branch.
- 9.Merge the “odd” branch to the current one.
- 10.Try to merge the “even” branch too – it should cause a conflict.
- 11.Resolve the conflict by combining all the numbers and commit the merge.List the commits using git log -p command and save the output in a file.

SOLUTION:

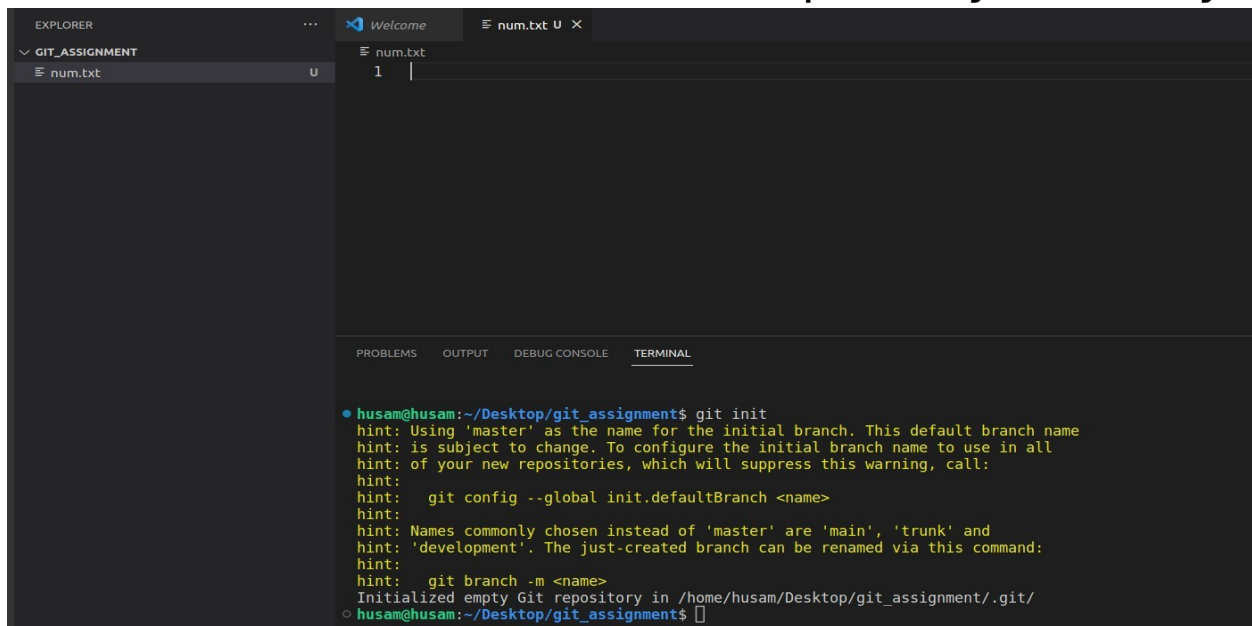
1. Use git init command to create a new git repository:



The screenshot shows the Visual Studio Code interface. The Explorer panel on the left shows a folder named 'GIT_ASSIGNMENT'. The main editor area displays the 'Welcome' page with options to 'Start' (New File, Open File, Open Folder, Clone Git Repository) and 'Recent' files. The Terminal panel at the bottom shows the output of the 'git init' command:

```
husam@husam:~/Desktop/git_assignment$ git init
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
Initialized empty Git repository in /home/husam/Desktop/git_assignment/.git/
husam@husam:~/Desktop/git_assignment$
```

2. num.txt file is created in the repository directory.

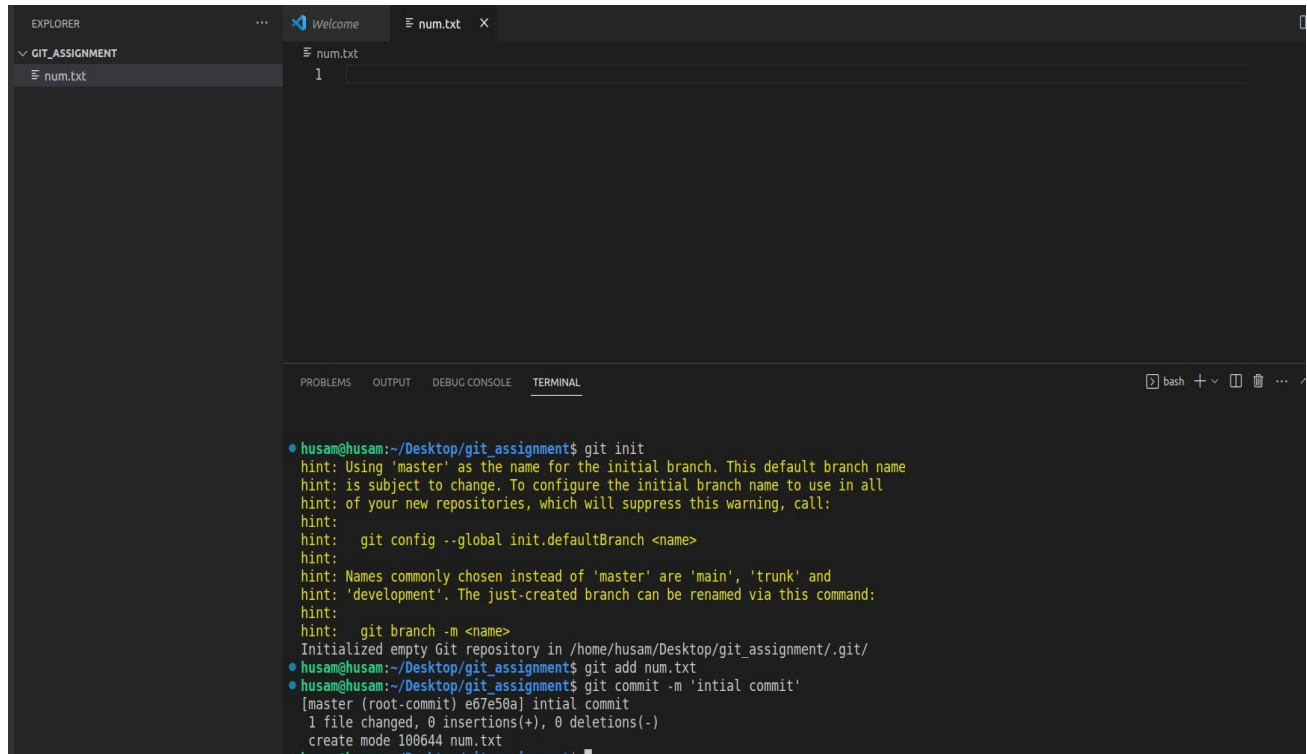


The screenshot shows the Visual Studio Code interface. The Explorer panel on the left shows the 'GIT_ASSIGNMENT' folder with a file named 'num.txt'. The main editor area shows the 'num.txt' file with the content '1'. The Terminal panel at the bottom shows the output of the 'git init' command, which is the same as the previous screenshot.

3. Add the file to the repository and commit it to the current branch with the following commands:

git add num.txt

git commit -m "Initial commit"



The screenshot shows a Visual Studio Code editor with a file named `num.txt` containing the number `1`. The Explorer sidebar on the left shows the file structure with `num.txt` under the `GIT_ASSIGNMENT` folder. The Terminal window at the bottom displays the following commands and output:

```
husam@husam:~/Desktop/git_assignment$ git init
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:   git branch -m <name>
Initialized empty Git repository in /home/husam/Desktop/git_assignment/.git/
husam@husam:~/Desktop/git_assignment$ git add num.txt
husam@husam:~/Desktop/git_assignment$ git commit -m 'intial commit'
[master (root-commit) e67e50a] intial commit
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 num.txt
```

4. Create two new branches, "odd" and "even," using the following command:

git branch

odd git

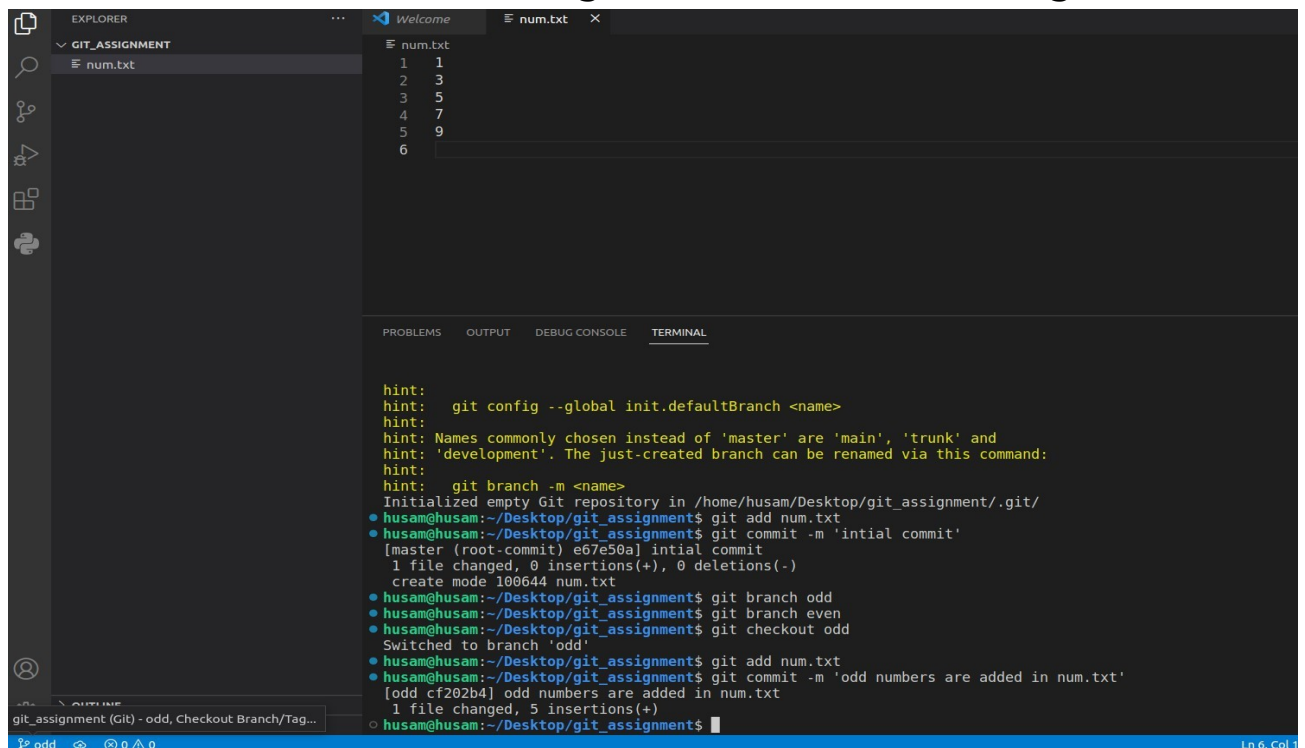
branch even

```

• husam@husam:~/Desktop/git_assignment$ git init
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
Initialized empty Git repository in /home/husam/Desktop/git_assignment/.git/
• husam@husam:~/Desktop/git_assignment$ git add num.txt
• husam@husam:~/Desktop/git_assignment$ git commit -m 'intial commit'
[master (root-commit) e67e50a] intial commit
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 num.txt
• husam@husam:~/Desktop/git_assignment$ git branch odd
• husam@husam:~/Desktop/git_assignment$ git branch even
• husam@husam:~/Desktop/git_assignment$

```

5. Switch to odd branch using 'git checkout odd' and then added odd numbers in num.txt file in odd branch ,after that committed the change as show below in fig:



```

EXPLORER
  GIT_ASSIGNMENT
    num.txt

num.txt
1 1
2 3
3 5
4 7
5 9
6

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

hint:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
Initialized empty Git repository in /home/husam/Desktop/git_assignment/.git/
• husam@husam:~/Desktop/git_assignment$ git add num.txt
• husam@husam:~/Desktop/git_assignment$ git commit -m 'intial commit'
[master (root-commit) e67e50a] intial commit
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 num.txt
• husam@husam:~/Desktop/git_assignment$ git branch odd
• husam@husam:~/Desktop/git_assignment$ git branch even
• husam@husam:~/Desktop/git_assignment$ git checkout odd
Switched to branch 'odd'
• husam@husam:~/Desktop/git_assignment$ git add num.txt
• husam@husam:~/Desktop/git_assignment$ git commit -m 'odd numbers are added in num.txt'
[odd cf202b4] odd numbers are added in num.txt
1 file changed, 5 insertions(+)
• husam@husam:~/Desktop/git_assignment$

```

6. Switch to even branch using 'git checkout even' and then added even numbers in num.txt file in even branch ,after that committed the change as show below in fig:

This screenshot shows the VS Code interface with a file explorer on the left displaying a project named 'GIT_ASSIGNMENT' containing a file 'num.txt'. The file contains the following content:

```
1 2
2 4
3 6
4 8
5 10
```

The terminal window at the bottom shows the following commands and output:

```
husam@husam:~/Desktop/git_assignment$ git commit -m 'intial commit'
[master (root-commit) e67e50a] intial commit
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 num.txt
husam@husam:~/Desktop/git_assignment$ git branch odd
husam@husam:~/Desktop/git_assignment$ git branch even
husam@husam:~/Desktop/git_assignment$ git checkout odd
Switched to branch 'odd'
husam@husam:~/Desktop/git_assignment$ git add num.txt
husam@husam:~/Desktop/git_assignment$ git commit -m 'odd numbers are added in num.txt'
[odd cf202b4] odd numbers are added in num.txt
1 file changed, 5 insertions(+)
```

The status bar at the bottom indicates the current branch is 'even'.

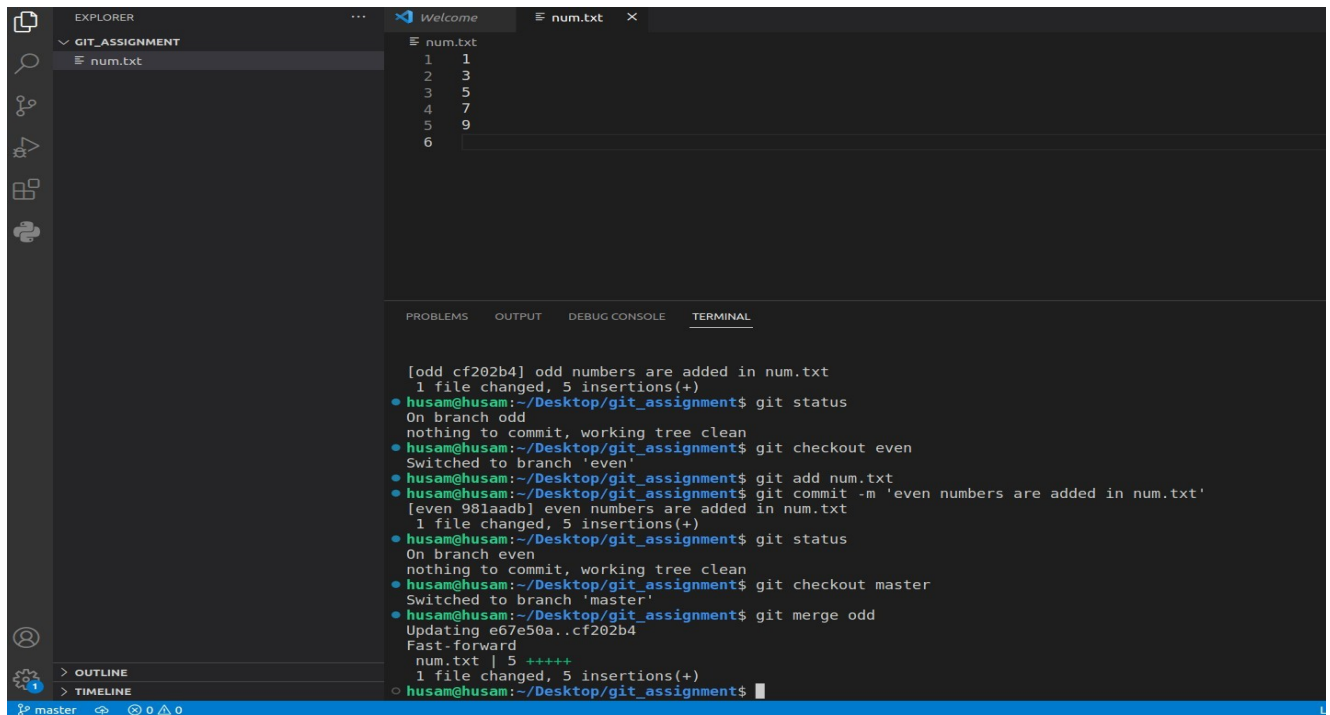
7. We switched to main branch using 'git checkout main'.

This screenshot shows the VS Code interface after switching to the master branch. The file explorer on the left shows the 'GIT_ASSIGNMENT' project with 'num.txt' containing the number '1'. The terminal window shows the following commands and output:

```
husam@husam:~/Desktop/git_assignment$ git branch even
husam@husam:~/Desktop/git_assignment$ git checkout odd
Switched to branch 'odd'
husam@husam:~/Desktop/git_assignment$ git add num.txt
husam@husam:~/Desktop/git_assignment$ git commit -m 'odd numbers are added in num.txt'
[odd cf202b4] odd numbers are added in num.txt
1 file changed, 5 insertions(+)
```

The status bar at the bottom indicates the current branch is 'master'.

8. Merging odd branch with main branch, using 'git merge odd'



```
EXPLORER
  v GIT_ASSIGNMENT
    num.txt

Welcome
  num.txt
  1 1
  2 3
  3 5
  4 7
  5 9
  6

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

[odd cf202b4] odd numbers are added in num.txt
1 file changed, 5 insertions(+)
• husam@husam:~/Desktop/git_assignment$ git status
On branch odd
nothing to commit, working tree clean
• husam@husam:~/Desktop/git_assignment$ git checkout even
Switched to branch 'even'
• husam@husam:~/Desktop/git_assignment$ git add num.txt
• husam@husam:~/Desktop/git_assignment$ git commit -m 'even numbers are added in num.txt'
[even 981aadb] even numbers are added in num.txt
1 file changed, 5 insertions(+)
• husam@husam:~/Desktop/git_assignment$ git status
On branch even
nothing to commit, working tree clean
• husam@husam:~/Desktop/git_assignment$ git checkout master
Switched to branch 'master'
• husam@husam:~/Desktop/git_assignment$ git merge odd
Updating e67e50a..cf202b4
Fast-forward
 num.txt | 5 +++++
1 file changed, 5 insertions(+)
• husam@husam:~/Desktop/git_assignment$
```

9. Merging even branch with main branch using 'git merge even' so it will cause conflict.

EXPLORER

num.txt

num.txt

Accept Current Change | Accept Incoming Change | Accept Both Changes | Compare Changes

1 <<<<<< HEAD (Current Change)

2 1

3 3

4 5

5 7

6 9

7 =====

8 2

9 4

10 6

11 8

12 10

13 >>>>>> even (Incoming Change)

14

Resolve in Merge Editor

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

nothing to commit, working tree clean

husam@husam:~/Desktop/git_assignment\$ git checkout even

Switched to branch 'even'

husam@husam:~/Desktop/git_assignment\$ git add num.txt

husam@husam:~/Desktop/git_assignment\$ git commit -m 'even numbers are added in num.txt'

[even 981aadb] even numbers are added in num.txt

1 file changed, 5 insertions(+)

husam@husam:~/Desktop/git_assignment\$ git status

On branch even

nothing to commit, working tree clean

husam@husam:~/Desktop/git_assignment\$ git checkout master

Switched to branch 'master'

husam@husam:~/Desktop/git_assignment\$ git merge odd

Updating e67e50a..cf202b4

Fast-forward

num.txt | 5 +++++

1 file changed, 5 insertions(+)

husam@husam:~/Desktop/git_assignment\$ git merge even

Auto-merging num.txt

CONFLICT (content): Merge conflict in num.txt

Automatic merge failed; fix conflicts and then commit the result.

husam@husam:~/Desktop/git_assignment\$

master

Ln 14, Col 1

Spaces: 4

UTF-8

LF

Plain Text

EXPLORER

num.txt

num.txt

Incoming 981aadb · even

Accept Incoming | Accept Combination (Incoming First) | Ignore

1 1

2 2

3 3

Current cf202b4 · master, odd

Accept Current | Accept Combination (Current First) | Ignore

1 1

2 2

3 3

Result num.txt

No Changes Accepted

1

1 Conflict Remaining

Complete Merge

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

nothing to commit, working tree clean

husam@husam:~/Desktop/git_assignment\$ git checkout even

Switched to branch 'even'

husam@husam:~/Desktop/git_assignment\$ git add num.txt

husam@husam:~/Desktop/git_assignment\$ git commit -m 'even numbers are added in num.txt'

[even 981aadb] even numbers are added in num.txt

1 file changed, 5 insertions(+)

husam@husam:~/Desktop/git_assignment\$ git status

On branch even

nothing to commit, working tree clean

husam@husam:~/Desktop/git_assignment\$ git checkout master

Switched to branch 'master'

husam@husam:~/Desktop/git_assignment\$ git merge odd

Updating e67e50a..cf202b4

Fast-forward

num.txt | 5 +++++

1 file changed, 5 insertions(+)

husam@husam:~/Desktop/git_assignment\$ git merge even

Auto-merging num.txt

CONFLICT (content): Merge conflict in num.txt

Automatic merge failed; fix conflicts and then commit the result.

husam@husam:~/Desktop/git_assignment\$

master

Ln 1, Col 1

Spaces: 4

LF

Plain Text

10. Resolve the conflict by combining all the numbers in the "num.txt" file and commit the merge

```
File Edit Selection View Go Run Terminal Help
EXPLORER
  GIT_ASSIGNMENT
    num.txt
  num.txt
num.txt
1 1
2 2
3 3
4 4
5 5
6 6
7 7
8 8
9 9
10 10

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
bash
[even ad4c01a] even numbers are added in num.txt
1 file changed, 5 insertions(+)
• husam@husam:~/Desktop/git_assignment$ git status
On branch even
nothing to commit, working tree clean
• husam@husam:~/Desktop/git_assignment$ git checkout master
Switched to branch 'master'
• husam@husam:~/Desktop/git_assignment$ git merge odd
Updating 4f68e01..7724078
Fast-forward
 num.txt | 5 +++++
1 file changed, 5 insertions(+)
• husam@husam:~/Desktop/git_assignment$ git merge even
Command 'get' not found, but there are 18 similar ones.
• husam@husam:~/Desktop/git_assignment$ git merge even
Auto-merging num.txt
CONFLICT (content): Merge conflict in num.txt
Automatic merge failed; fix conflicts and then commit the result.
• husam@husam:~/Desktop/git_assignment$ git add num.txt
• husam@husam:~/Desktop/git_assignment$ git commit -m 'Resolve conflict: Combine all numbers'
[master 61d2f40] Resolve conflict: Combine all numbers
• husam@husam:~/Desktop/git_assignment$
```

11. And finally using `git log -p > commits.txt` command is used to list commits and create `commits.txt` file as output.


```
File Edit Selection View Go Run Terminal Help

EXPLORER
  GIT_ASSIGNMENT
    commits.txt
    num.txt

commits.txt
1 commit 61d2f40249e1bd69250ee5e20e9510a5d2247a1b
2 Merge: 7724078 ad4c01a
3 Author: husam <mohammad.hussam@xloopdigital.com>
4 Date: Thu Apr 6 04:03:07 2023 +0500
5
6 Resolve conflict: Combine all numbers
7
8 commit ad4c01ac6e0a171022ba747660d15eb54ac05b2a
9 Author: husam <mohammad.hussam@xloopdigital.com>
10 Date: Thu Apr 6 03:57:37 2023 +0500
11
12 even numbers are added in num.txt
13
14 diff --git a/num.txt b/num.txt
15 index e69de29..0e0333e 100644

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1 file changed, 5 insertions(+)
• husam@husam:~/Desktop/git_assignment$ git status
On branch even
nothing to commit, working tree clean
• husam@husam:~/Desktop/git_assignment$ git checkout master
Switched to branch 'master'
• husam@husam:~/Desktop/git_assignment$ git merge odd
Updating 4f68e01..7724078
Fast-forward
 num.txt | 5 +++++
 1 file changed, 5 insertions(+)
• husam@husam:~/Desktop/git_assignment$ get merge even
Command 'get' not found, but there are 18 similar ones.
• husam@husam:~/Desktop/git_assignment$ git merge even
Auto-merging num.txt
CONFLICT (content): Merge conflict in num.txt
Automatic merge failed; fix conflicts and then commit the result.
• husam@husam:~/Desktop/git_assignment$ git add num.txt
• husam@husam:~/Desktop/git_assignment$ git commit -m 'Resolve conflict: Combine all numbers'
[master 61d2f40] Resolve conflict: Combine all numbers
• husam@husam:~/Desktop/git_assignment$ git log -p > commits.txt
o husam@husam:~/Desktop/git_assignment$
```

Commit.file:

```
Open [icon]
~/Downloads/git_assignment (2) (1)/git_assignment

commits.txt
1 commit 61d2f40249e1bd69250ee5e20e9510a5d2247a1b
2 Merge: 7724078 ad4c01a
3 Author: husam <mohammad.hussam@xloopdigital.com>
4 Date: Thu Apr 6 04:03:07 2023 +0500
5
6 Resolve conflict: Combine all numbers
7
8 commit ad4c01ac6e0a171022ba747660d15eb54ac05b2a
9 Author: husam <mohammad.hussam@xloopdigital.com>
10 Date: Thu Apr 6 03:57:37 2023 +0500
11
12 even numbers are added in num.txt
13
14 diff --git a/num.txt b/num.txt
15 index e69de29..0e0333e 100644
16 --- a/num.txt
17 +++ b/num.txt
18 @@ -0,0 +1,5 @@
19 +2
20 +4
21 +6
22 +8
23 +10
24 \ No newline at end of file
25
26 commit 77240789c25a94fda549d65f1a0ad6ffcc2c577d
27 Author: husam <mohammad.hussam@xloopdigital.com>
28 Date: Thu Apr 6 03:54:28 2023 +0500
29
30 odd numbers are added in num.txt
31
32 diff --git a/num.txt b/num.txt
33 index e69de29..7104f42 100644
34 --- a/num.txt
35 +++ b/num.txt
36 @@ -0,0 +1,5 @@
37 +1
38 +3
39 +5
40 +7
41 +9
42 \ No newline at end of file
43
44 commit 4f68e0178f4771d0e9c2cf4d5c0be67d180f71c5
45 Author: husam <mohammad.hussam@xloopdigital.com>
46 Date: Thu Apr 6 03:51:18 2023 +0500
47
48 initial commit
49
50 diff --git a/num.txt b/num.txt
51 new file mode 100644
52 index 0000000..e69de29
```