Merge Conflict

```
<Head>
<Head>
<title> C33 </title>
```

```
<Html>
<Head>
<Title> changed </Title>
```

Master

Issue 1

$C_0 \leftarrow C_1 \leftarrow C_2 \leftarrow C_6 \xleftarrow{} \text{Merge} \; C_8$

merge Gmail

```
<Html>
<Head>
<Title> B </T>
```

$C_4 \leftarrow C_5 \leftarrow C_7$

Conflict resolution markers

`<<<< << Head : index. Html`

`==; ===== . =`

`==>>> issue1 : index.html`

git add index.html
git commit
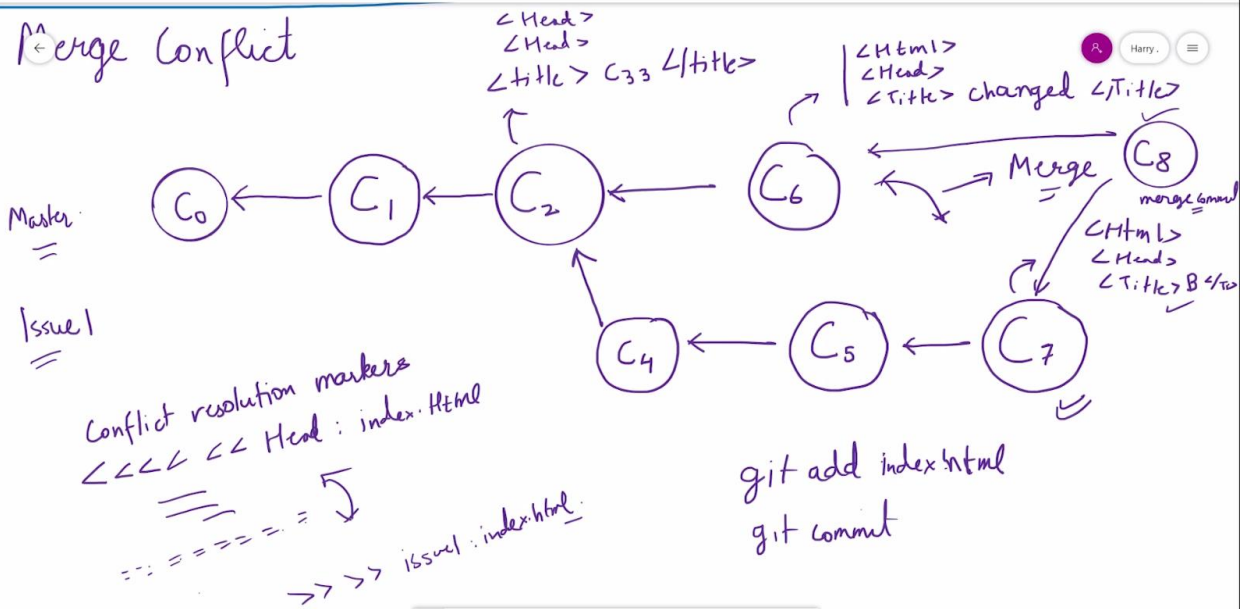
Branch management

git branch .
* master
  develop-
  system

git branch -v
* master   Commit hash   Commit message
  develop   97b13C   "This will fix"

git branch --merged → already merged branches.
git branch --no-merged → not " " "

Deleting branches

git branch -d develop. ⟹ gives error if develop is
                           not merged
" " -D " ⟹ no error & branch gets deleted

Make main folder git repository, stage and then commit those files

```
        static/

nothing added to commit but untracked files present (use "git add" to track)

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git add .

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   .gitignore
        new file:   564.xlsx
        new file:   learnC/Appendix/bstr_hello.c
        new file:   learnC/Appendix/bstr_split.c
        new file:   learnC/Appendix/bstr_trim.c
        new file:   learnC/Chapter01/comments.c
        new file:   learnC/Chapter01/hello1.c
        new file:   learnC/Chapter01/hello2.c
        new file:   learnC/Chapter02/hello.c
        new file:   learnC/Chapter02/hello2.c
        new file:   learnC/Chapter02/hello3.c
        new file:   learnC/Chapter02/hello4.c
        new file:   learnC/Chapter02/hello5.c
        new file:   learnC/Chapter02/hello6.c
```

```
            new file:    static/sdfadf.txt


Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git commit -m "Initial commit"
[master (root-commit) a081a45] Initial commit
 130 files changed, 10578 insertions(+)
 create mode 100644 .gitignore
 create mode 100644 564.xlsx
 create mode 100644 learnC/Appendix/bstr_hello.c
 create mode 100644 learnC/Appendix/bstr_split.c
 create mode 100644 learnC/Appendix/bstr_trim.c
 create mode 100644 learnC/Chapter01/comments.c
 create mode 100644 learnC/Chapter01/hello1.c
 create mode 100644 learnC/Chapter01/hello2.c
 create mode 100644 learnC/Chapter02/hello.c
 create mode 100644 learnC/Chapter02/hello2.c
 create mode 100644 learnC/Chapter02/hello3.c
 create mode 100644 learnC/Chapter02/hello4.c
 create mode 100644 learnC/Chapter02/hello5.c
 create mode 100644 learnC/Chapter02/hello6.c
 create mode 100644 learnC/Chapter02/hello7.c
 create mode 100644 learnC/Chapter02/hello_nowhitespace.c
 create mode 100644 learnC/Chapter02/hello_whitespace.c
 create mode 100644 learnC/Chapter02/main.c
 create mode 100644 learnC/Chapter02/main2.c
 create mode 100644 learnC/Chapter02/printingEscapeSquences.c
 create mode 100644 learnC/Chapter03/sizes_ranges1.c
 create mode 100644 learnC/Chapter03/sizes_ranges2.c
```

```
$ cd ..

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main
$ git status
fatal: not a git repository (or any of the parent directories): .git

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main
$ git init
Initialized empty Git repository in E:/videos/Study/cs/important/Git and github/Notes/main/.g
it/

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        .gitignore
        564.xlsx
        learnC/
        renamedFirst.txt
        static/

nothing added to commit but untracked files present (use "git add" to track)

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$
```

Create new file and then run git status and then track that file and commit changes

```
        (use "git add <file>..." to include in what will be committed)
                index.html

nothing added to commit but untracked files present (use "git add" to track)

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git add .

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   index.html


Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git commit -m "added index.html"
[master c216224] added index.html
 1 file changed, 12 insertions(+)
 create mode 100644 index.html

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git status
On branch master
nothing to commit, working tree clean

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$
```

```
 create mode 100644 learnC/Chapter25/circle.c
 create mode 100644 learnC/Chapter25/trig.c
 create mode 100644 learnC/LICENSE
 create mode 100644 learnC/README.md
 create mode 100644 renamedFirst.txt
 create mode 100644 static/sdfadf.txt

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        index.html

nothing added to commit but untracked files present (use "git add" to track)

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git add .

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   index.html


Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$
```

Create new branch "issue1"


```
Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git add .

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   index.html


Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git commit -m "added index.html"
[master c216224] added index.html
 1 file changed, 12 insertions(+)
 create mode 100644 index.html

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git status
On branch master
nothing to commit, working tree clean

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git checkout -b "issue1"
Switched to a new branch 'issue1'

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (issue1)
$
```

change some file and commit the changes


```
Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git commit -m "added index.html"
[master c216224] added index.html
 1 file changed, 12 insertions(+)
 create mode 100644 index.html

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git status
On branch master
nothing to commit, working tree clean

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git checkout -b "issue1"
Switched to a new branch 'issue1'

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (issue1)
$ git commit -a -m "first issue1 commit"
[issue1 e4ba902] first issue1 commit
 1 file changed, 1 insertion(+), 1 deletion(-)

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (issue1)
$ git status
On branch issue1
nothing to commit, working tree clean

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (issue1)
$
```

again change some file and commit the changes

```
On branch master
nothing to commit, working tree clean

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git checkout -b "issue1"
Switched to a new branch 'issue1'

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (issue1)
$ git commit -a -m "first issue1 commit"
[issue1 e4ba902] first issue1 commit
 1 file changed, 1 insertion(+), 1 deletion(-)

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (issue1)
$ git status
On branch issue1
nothing to commit, working tree clean

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (issue1)
$ git commit -a -m "second issue1 commit"
[issue1 bd4ddfb] second issue1 commit
 1 file changed, 1 insertion(+), 1 deletion(-)

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (issue1)
$ git status
On branch issue1
nothing to commit, working tree clean

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (issue1)
$
```

Now switch to master branch and change any file and commit the changes

```
[issue1 e4ba902] first issue1 commit
 1 file changed, 1 insertion(+), 1 deletion(-)

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (issue1)
$ git status
On branch issue1
nothing to commit, working tree clean

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (issue1)
$ git commit -a -m "second issue1 commit"
[issue1 bd4ddfb] second issue1 commit
 1 file changed, 1 insertion(+), 1 deletion(-)

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (issue1)
$ git status
On branch issue1
nothing to commit, working tree clean

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (issue1)
$ git checkout master
Switched to branch 'master'

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git commit -a -m "second commit in master"
[master e509b56] second commit in master
 1 file changed, 1 insertion(+), 1 deletion(-)

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$
```
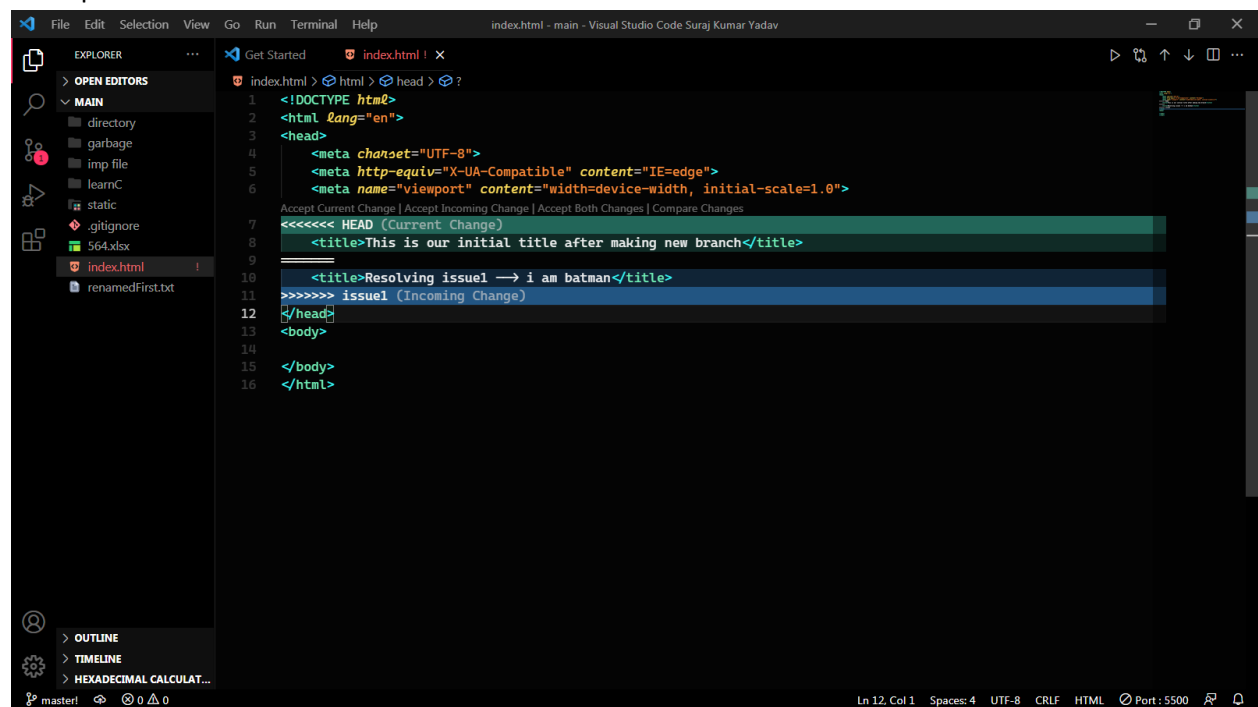
Now to merge issue1 branch to master branch (in master branch)


```
MINGW32:/e/videos/Study/cs/important/Git and github/Notes/main
nothing to commit, working tree clean

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (issue1)
$ git commit -a -m "second issue1 commit"
[issue1 bd4ddfb] second issue1 commit
 1 file changed, 1 insertion(+), 1 deletion(-)

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (issue1)
$ git status
On branch issue1
nothing to commit, working tree clean

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (issue1)
$ git checkout master
Switched to branch 'master'

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git commit -a -m "second commit in master"
[master e509b56] second commit in master
 1 file changed, 1 insertion(+), 1 deletion(-)

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git merge issue1
Auto-merging index.html
CONFLICT (content): Merge conflict in index.html
Automatic merge failed; fix conflicts and then commit the result.

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master|MERGING)
$
```

now open VS Code and select one

```
  MINGW32:/e/videos/Study/cs/important/Git and github/Notes/main

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master|MERGING)
$ 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:   index.html

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

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master|MERGING)
$ git add .

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master|MERGING)
$ git status
On branch master
All conflicts fixed but you are still merging.
  (use "git commit" to conclude merge)

Changes to be committed:
        modified:   index.html


Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master|MERGING)
$
```

to merge finally we have to commit


```
  MINGW32:/e/videos/Study/cs/important/Git and github/Notes/main

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:   index.html

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

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master|MERGING)
$ git add .

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master|MERGING)
$ git status
On branch master
All conflicts fixed but you are still merging.
  (use "git commit" to conclude merge)

Changes to be committed:
        modified:   index.html


Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master|MERGING)
$ git commit -m "finally merged issue1"
[master 973a1c9] finally merged issue1

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$
```

To show all branches → "git branch"

```
MINGW32:/e/videos/Study/cs/important/Git and github/Notes/main
Date:     Sat May 7 20:11:04 2022 +0530

    second issue1 commit

commit e4ba9025d7b9fc130eade55a090f2603f352c205
Author: Suraj <yadavsurajkumar665@gmail.com>
Date:     Sat May 7 20:09:41 2022 +0530

    first issue1 commit

commit c2162246bbbf49236d17e4fb7e607f69f0022456
Author: Suraj <yadavsurajkumar665@gmail.com>
Date:     Sat May 7 20:06:23 2022 +0530

    added index.html

commit a081a457e761b118176d08bfe050f15f72ba8117
Author: Suraj <yadavsurajkumar665@gmail.com>
Date:     Sat May 7 20:01:34 2022 +0530

    Initial commit

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git branch
  issue1
* master

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$
```

To see in more detail → "git branch –v"

```
MINGW32:/e/videos/Study/cs/important/Git and github/Notes/main
Author: Suraj <yadavsurajkumar665@gmail.com>
Date:     Sat May 7 20:09:41 2022 +0530

    first issue1 commit

commit c2162246bbbf49236d17e4fb7e607f69f0022456
Author: Suraj <yadavsurajkumar665@gmail.com>
Date:     Sat May 7 20:06:23 2022 +0530

    added index.html

commit a081a457e761b118176d08bfe050f15f72ba8117
Author: Suraj <yadavsurajkumar665@gmail.com>
Date:     Sat May 7 20:01:34 2022 +0530

    Initial commit

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git branch
  issue1
* master

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$ git branch -v
  issue1 bd4ddfb second issue1 commit
* master 973a1c9 finally merged issue1

Dell@SURAJ MINGW32 /e/videos/Study/cs/important/Git and github/Notes/main (master)
$
```

To see already merged branch → "git branch --merged"

To see branches that are created but not merged

since, there is no other branch so nothing is shown

To delete a branch → "git branch –d branchName" → this will delete branch if already merged with master otherwise shows error.

To overcome this problem i.e. to delete branch without merging in master → "git branch –D branchName" → just replace 'd' by 'D'