Github分支本质上是父分支的一个copy，并且在各自修改文件之后支持分支的合并，如果合并冲突的话需要修改响应的文件以确定合并方式，在本地创建分支与合并分支的demo如下：

宋小航@LAPTOP-J8ERCUSJ MINGW64 /d/宋小航/Documents/GitHub/Sofetware-engineering (main)

$ git branch

\* main

sunmingyu

zengmengyuan

宋小航@LAPTOP-J8ERCUSJ MINGW64 /d/宋小航/Documents/GitHub/Sofetware-engineering (main)

$ git branch testing

宋小航@LAPTOP-J8ERCUSJ MINGW64 /d/宋小航/Documents/GitHub/Sofetware-engineering (main)

$ git branch

\* main

sunmingyu

testing

zengmengyuan

宋小航@LAPTOP-J8ERCUSJ MINGW64 /d/宋小航/Documents/GitHub/Sofetware-engineering (main)

$ git checkout testing

Switched to branch 'testing'

宋小航@LAPTOP-J8ERCUSJ MINGW64 /d/宋小航/Documents/GitHub/Sofetware-engineering (testing)

$ git touch a.txt

git: 'touch' is not a git command. See 'git --help'.

宋小航@LAPTOP-J8ERCUSJ MINGW64 /d/宋小航/Documents/GitHub/Sofetware-engineering (testing)

$ touch a.txt

宋小航@LAPTOP-J8ERCUSJ MINGW64 /d/宋小航/Documents/GitHub/Sofetware-engineering (testing)

$ echo 'hello' > a.txt

宋小航@LAPTOP-J8ERCUSJ MINGW64 /d/宋小航/Documents/GitHub/Sofetware-engineering (testing)

$ ls

1.txt Notes-master/ a.txt exp1/ exp2/ songyinghang.txt sunmingyu.txt 工作进度1.0/

宋小航@LAPTOP-J8ERCUSJ MINGW64 /d/宋小航/Documents/GitHub/Sofetware-engineering (testing)

$ git checkout main

Switched to branch 'main'

Your branch is up to date with 'origin/main'.

宋小航@LAPTOP-J8ERCUSJ MINGW64 /d/宋小航/Documents/GitHub/Sofetware-engineering (main)

$ git checkout testing

Switched to branch 'testing'

宋小航@LAPTOP-J8ERCUSJ MINGW64 /d/宋小航/Documents/GitHub/Sofetware-engineering (testing)

$ git checkout main

Switched to branch 'main'

Your branch is up to date with 'origin/main'.

宋小航@LAPTOP-J8ERCUSJ MINGW64 /d/宋小航/Documents/GitHub/Sofetware-engineering (main)

$ git merge testing

Already up to date.

宋小航@LAPTOP-J8ERCUSJ MINGW64 /d/宋小航/Documents/GitHub/Sofetware-engineering (main)

$ ls

1.txt Notes-master/ a.txt exp1/ exp2/ songyinghang.txt sunmingyu.txt 工作进度1.0/

宋小航@LAPTOP-J8ERCUSJ MINGW64 /d/宋小航/Documents/GitHub/Sofetware-engineering (main)

$ ^C

宋小航@LAPTOP-J8ERCUSJ MINGW64 /d/宋小航/Documents/GitHub/Sofetware-engineering (main)

$