

Pull request exercise 2 - Merge conflict

This exercise illustrates a file being edited by two developers and which creates a merge conflict. Using GitHub Flow, the merge conflict is addressed locally and the local feature branch can then be pushed to the remote repo, a pull request created, reviewed and then safely merged into the remote main branch.

Work through the following exercise in pairs.

Before each step, discuss what the step does and the expected result - ask if unsure.

1. Create a new project in IntelliJ
2. Create a new text file e.g. hello.txt in the static resources folder.
3. Add the text "Hello" to the file.
4. Make an initial commit locally.
5. Share the project on GitHub.
6. On GitHub, add a collaborator to the project. (The collaborator should accept the invitation.)

In IntelliJ:

7. Update the local main branch.
8. Create a new local branch "feature-greeting"
9. Add the text "world" on the line below "Hello"
10. Commit the changes on the branch locally.

On GitHub (logged in as the collaborator)

11. (For the sake of this exercise to quickly simplify a collaborator making a commit on the main branch:) On the main branch edit the hello.txt file on GitHub by adding two new lines with the text "Hello KEA" and "Hello 2nd Semester" below "Hello". Commit the changes directly to the main branch on GitHub.

In IntelliJ:

12. Update the local main branch
13. Try to merge the local main branch into the local feature-greeting branch. Click the Merge button to open the merge editor window. Resolves the conflicts by accepting ("world") from the feature branch (left side) and (Hello 2nd semester) from main (right window). The result should be:

```
Hello
world
Hello 2nd Semester
```

14. Commit the changes to the local feature-greeting branch
15. Push the local feature-greeting branch to the remote.

On GitHub (logged in as the repo owner):

16. Observe the changes (feature-greeting branch created).
17. Choose "Compare & pull request"
18. Add a reviewer (a collaborator).
19. On Github, the reviewer should review and approve the changes.

20. Merge the pull request and delete the feature-greeting branch.

In IntelliJ:

21. In the local repo delete the remote tracking feature-greeting branch.

22. In the local repo switch to the main branch and update the project.

23. In the local repo delete the feature-greeting branch.