

CSP203: Software Tools & Technologies Lab

Lab-14: Practice Problems (GIT)

Date: 5-Nov-2024

Instructions:

1. You should complete lab problems during the lab hour and submit it through canvas.
2. Prepare all your solution files in a zip file and name it as <ROLLNO.zip> and submit on canvas.

Exercises:

1. Set up git. Learn how to set up and install it on your machine..
2. Configure your git setup by setting your name and mail address. If you have done that, check the .gitconfig file in your home directory.
3. Create a new directory and initialize an empty git repository in it.
4. Create a simple sample code file in the directory and stage it in git.
5. Modify the sample code file. Check if the changes are visible using the git diff command.
6. Now stage the changes and check if the changes are visible using the git diff command.
7. Commit the changes. Look at the commit history you created.
8. Push the changes to the remote repository.
9. Create another local repository of the same user.
10. Try to make changes in both the repositories. The changes should not have any conflicts with the first repository. Commit and push both the changes.
11. Try to make changes in both the repositories. The changes should have conflicts with the first repository in 2 files (say file1.txt and file2.txt). Commit and push both the changes. You should resolve conflicts as follows.
 - a. file1.txt should have the changes from the second repository
 - b. file2.txt should have the changes from the first repository
12. Create and switch to another new branch (e.g. name it add_readme). Check again that you created the branch and that it is checked out.
13. Add a new file on the branch (e.g. a README) and commit the new file.
14. Switch back to master. Verify that the new file is gone.
15. Provoke a merge conflict by creating a new branch (e.g. name it edit_sample_file) and change the sample file. Commit the changes on the new branch. Edit the same part of the file back on master and also commit the changes. Now, try merging the new branch with the edited sample file.
16. Fix the merge conflict.