IT3030 (PAF) – Practical Sheet 2

Version Controlling with Git - II

Introduction

Last week, we went through the basic commands in Git. This week, we are going to see one of the most important and useful features in Git: branching.

Along with branching, we will also see how to use a simple workflow (branching strategy) as well. You will learn a new concept called Pull Requests (PRs) in this practical session.

Since we have set up our git clients on our computers and GitHub accounts last week, we are just going to use them in this session.

Step 1 – Individual work

1. Create a Public GitHub Repository.
2. Then **Clone** it to your computer using the Git Clone command (*git clone <https://repo_url>)*
3. Once the cloning is complete, create a feature branch in the local repository.
    a. There are two options for creating a branch.
        i. *git branch <meaningful_branch_name>* - just creates the branch based on the current branch. Use *git checkout <new_branch>* to check out the new branch.
        ii. *git checkout -b <meaningful_branch_name>* - creates the branch and immediately switches to the created branch.
        iii. Make sure to give a meaningful branch name and follow a good naming convention. Here is an example.
        E.g.: *git checkout -b feature/vishan.j/awesome-feature-x-to-our-app*
4. Again, add some text files/ html files (content doesn't matter) to this branch.
5. Commit changes in this branch locally and then push this branch to the remote.
6. Ensure your changes are available in the remote repository on GitHub if all went well. The changes should be available under your feature branch name.
7. Use the GitHub official documentation to create a Pull Request on Github for your branch.
8. Then merge the pull request to the main by referring to this official documentation.

Step 2 – Pair work

1. Now pair up with a colleague (preferably sitting next to you) and add them to your repository as a collaborator by referring to this documentation.
2. Now clone their repository to your computer.
3. Then as with step 1, create a branch and introduce a small change.
4. Push the branch to the remote repository.
5. Use the GitHub official documentation to create a Pull Request on Github for your branch.
6. Then merge the pull request created by your friend to the main by referring to this official documentation.