Git(Hub) – Good Practices Document

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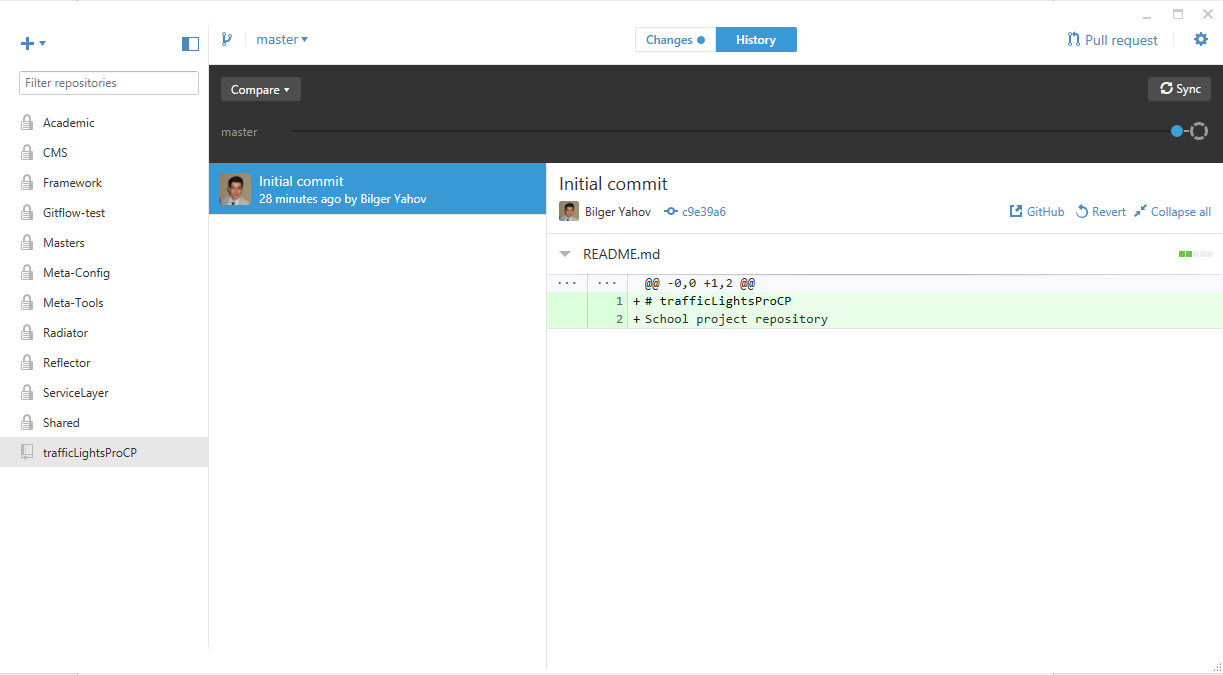
19.02.2016

Modified 29.02.2016

1. Download Git for your Operating System from <https://github.com/>
2. Install Git.
3. If you don’t have an account – then create one.

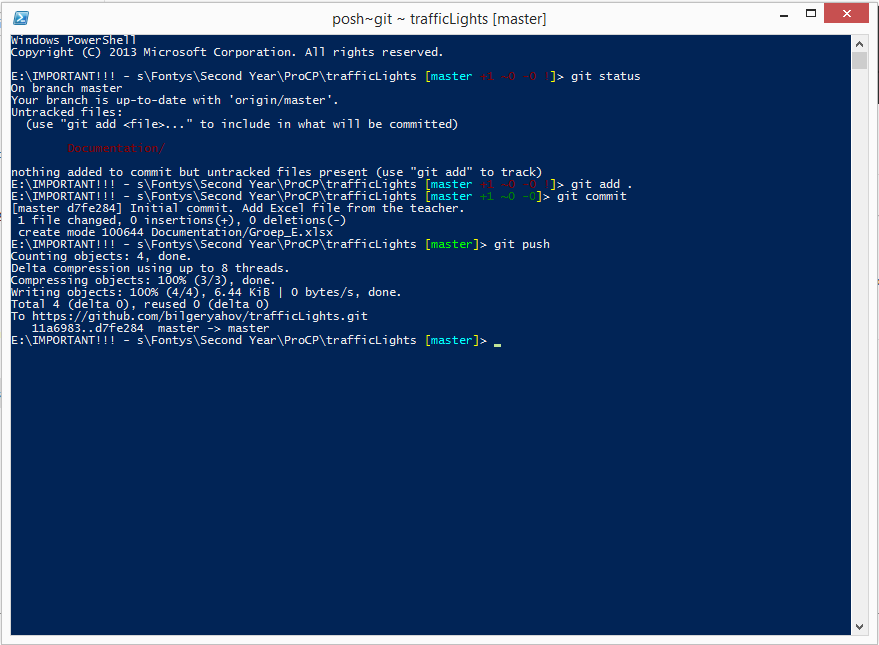
Continues below…

1. After opening Git client you should be able to see this



1. On the left you can see your repositories.
2. In the “History” you can see the history of commits by all the project members or so-called repository contributors.

Continues below….



1. After opening Git Shell you should be able to see this on your screen.

Commands:

To pull the last changes use command:

git pull --ff-only

The command is self-explanatory and there is no need to explain what it does.

To push your changes to the repository use the commands in this sequence

git add .

Watch out that after add there is a white space and after it comes the dot. This command adds all the tracked files from your local copy to the “waiting list”.

git commit

After this command notepad opens. Without moving the cursor just type your commit message and click “Save” to the file. You do not need to save the file somewhere locally! Just press “Ctrl + C” and the magic is done! This command commits all the changes from the “waiting list”.

git push

This is the last command of pushing your local changes to the repository. This command pushes all the added and committed files the repository.

## Here I will give an overview of how to use the commands in a sequence.

After making your changes keep the following steps:

git stash

This command parks your changes somewhere aside.

git pull --ff-only

This command pulls all the changes from the Repository.

git stash apply

This command gets your changes back from the parking spot☺.

git add .

This command adds all the tracked files to the waiting list.

git commit

This command commits all the files.

git push

This command pushes all the changes to the master branch.

# How to use Git branches:

First of all I would like to emphasize that the workflow will be done in the branch named “Develop”.

In order to go to that branch you only need to type:

git checkout develop

What you need to do now immediately and also regularly is to pull everything. Mentioned above how to do that.

As already discussed we will be working with branches about different functional parts of the application. In order to create a branch for yourself type in the Shell:

git checkout -b feature-bilger develop

The newly created branch will be starting from develop.

After that you need to push your branch to the repository. You can do that by typing following in the Shell:

git push --set-upstream origin feature-bilger

After that you can start working on your stuff. When you are done just type the commands described above. Git add, git commit git push… Look above!

Always name your branches in the following way:

feature-<the name of the feature>-<your name>feature-blabla-bilger

When you are done with the particular feature and you want to merge it into develop the things that you need to do:

1) Checkout to develop,

2) Pull everything from develop

3) Go to your branch

4) Merge develop INTO YOUR BRANCH:

git merge --no-ff develop

After the merging process you have everything from develop merged into your branch. If there are any problems to be fixed please do in your branch.

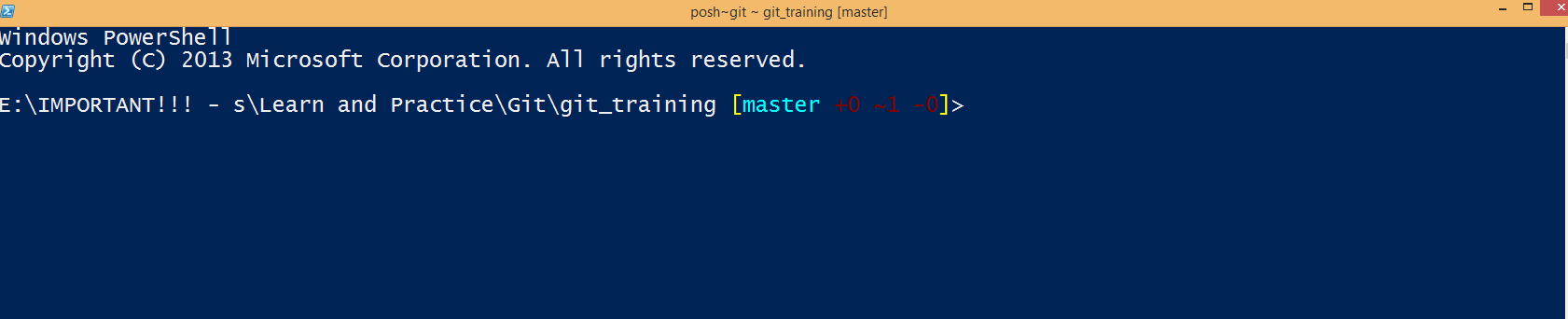
After fixing the problems do the steps: git add, git commit, git push. This is to update your branch which now is the newest one. With everything from develop merged with your branch and fixed errors.

When you are done with this go to develop again, pull everything if there are new things that came in do the same steps as above or if everything is up-to-date do:

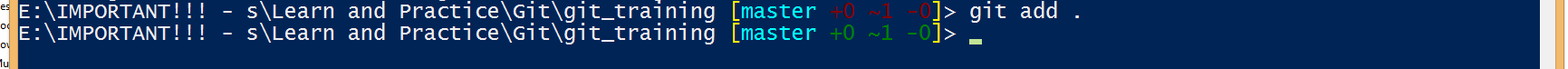
git merge --no-ff <your branch name>

After merging you will see that the develop sign font gets green. That means that you need to push.

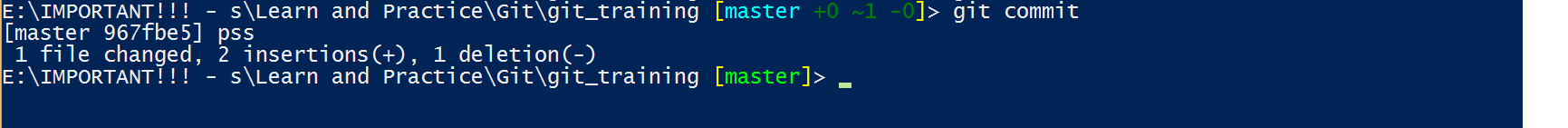
Here are some screenshots of the Shell demonstrating the different states:



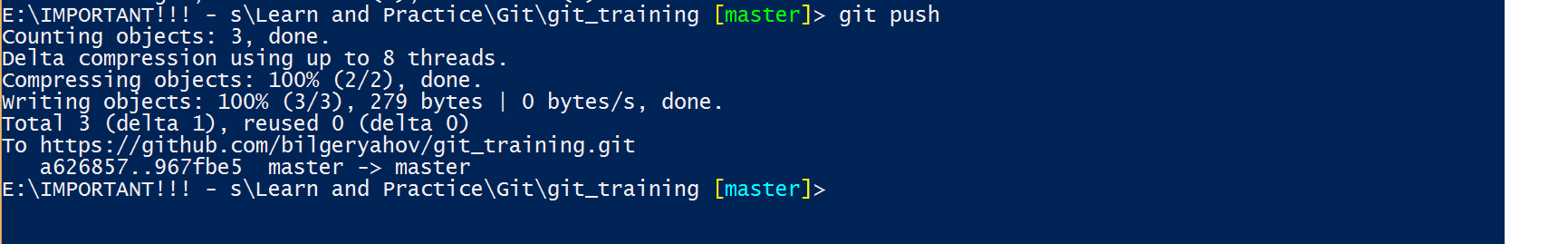
Above you can see the name of the branch in blue and numbers in red. This indicates that there are changes in your local working copy.



After git add . looks like this - the name of the branch in blue and numbers in green. By the way the numbers indicate the changes that you have made. The first one means 0 insertion(s), 1 change(s), and 0 deletion(s).



After git commit the name of the branch gets green. (If everything went well).



After push the color of the branch gets again blue. It means that everything was successful. ☺

At the end when you are all done with your branch it’s time to delete it.

There are two things to be done:

1. Delete it from the repository

git push origin --delete <branchName>

1. Delete it from your local working copy

git branch -d <branchName>