GIT Instuction

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This document should give a short instruction to show the most fundamental git operations. We assume that (as in our case) you have already created a git repository online.

1 Installing Git

On Mac you can simply write the following command in your Terminal:

```
$ git --version
```

If you do not have git installed on your machine it will ask if you would like to install it. Otherwise it will give you the version of your Git. If you have another machine you can follow the installation instructions in this link. If you do not have a Git account already please register at github.com

2 Working with Git from the commandline

1. Change your directory to where you want your project to be saved.

   ```
   $ cd Documents/
   ```

2. Clone the repository onto your local computer.

   ```
   $ git clone https://github.com/Jonastuhh/facial_emotion.git
   ```

   Git will create a new folder containing all the files of the repository.

3. Navigate into the newly created folder.

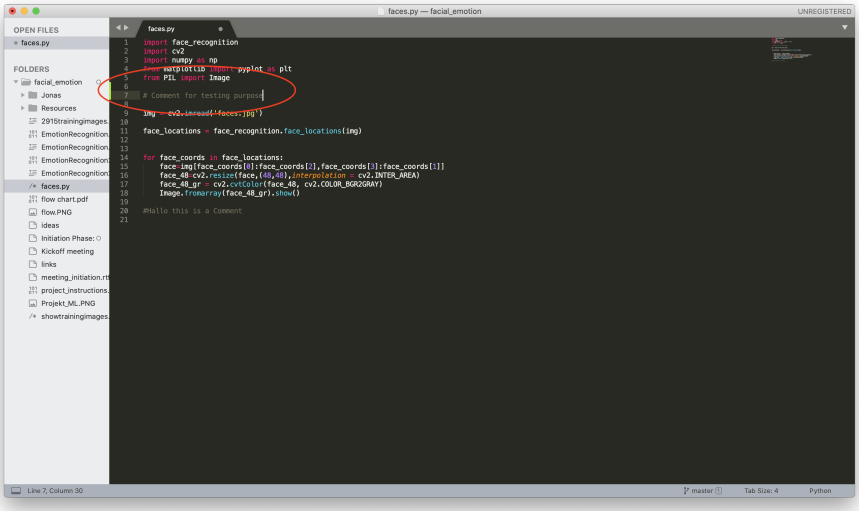
   ```
   $ cd facial_emotion/
   ```

4. Before each time you would like to work on the project you should **pull** the latest contributions to the repository on your computer by typing:

   ```
   $ git pull
   ```

It will add everything that has been changed or added by others since the last time you cloned or pulled the project to your local machine. Now your files are up to date.

5. You can start working in your editor of choice. In my case this is Sublime Text.



The green bar on the left indicates that you have added this line (yellow indicates modifications and red that you have deleted a line). This is not the case in every editor.

6. To see which files have been modified locally, you can type:

```
$ git status
```

or to see the difference between your local files and the uploaded files:

```
$ git diff
```

7. When you are finished editing you have to upload your progress again so the others can continue working where you left off. To **add** and **commit** all changes you made, type:

```
$ git add .
$ git commit –m "Comment to describe the changes you made"
```

In the comment between parentheses you can specify what you did so the other group memebers can comprehend the changes.

8. You finish the uploading progress by typing:

```
$ git push
```

Now all changes are online and everyone can **pull** the contributions you made on their local computer.

Remark: Don't forget to pull the changes each time you start working on your computer.

3 Working with Git using a Git GUI

If you are not familiar with the command line you can also use a GUI for the version control. This is a instruction using Sourcetree.

1. First, we have to install Sourcetree after downloding it from the following link. After downloading you can log in.

2. To **clone** the repository go to Datei –¿ Neu... in the toolbar. A window pops up. Now you can choose "Von URL kopieren" and another window will open. It will ask you to enter the URL of our repostiory. In our case "https://github.com/Jonastuhh/facial_emotion.git". The path and name will be filled out automatically. Now you can press on "Klone".

3. Now you can perform the same actions as with the command line. By pressing the Button **pull** you can download the latest changes onto your local computer.

4. You can now start editing the files in your editor of choice.

5. When you are finished with working you need to upload the changes. To do this you have to **commit** your changes by pressing the commit button and typing in a commit message describing what you did.

6. After you committed your changes you can press the **push** button and the changes are available for all group members again.

Remark: Also with Sourcetree it is important to pull the changes each time you start working on the files.