Modern C++for Computer Vision and Image Processing
Institute of Geodesy and Geoinformation
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UNIVERSITÄT BONN

Homework. 1: Bash and Build System

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To do this homework you will need to download the files from e-Campus. All the needed files are in the `homework_1.zip` file.

Once you have forked `https://gitlab.igg.uni-bonn.de/teaching/cpp-homeworks` and cloned your own repository extract the `homework_1.zip` archive into `cpp-homework/homework_1` folder:

```
$ git clone https://gitlab.igg.uni-bonn.de/<YOUR_USER_NAME>/cpp-homeworks
$ cd cpp-homeworks/homework_1
$ mv ~/Downloads/homework_1.zip . # or replace ~/Downloads with your path
$ unzip homework_1.zip && rm homework_1.zip
```

Once you successfuly extracted the files, your working directory should look like the following:

```
|-- homework_1
|   |-- task_1
|   |   `-- test_folder
|   `-- task_2
|       |-- include
|       |   `-- ipb_arithmetic
|       |-- results
|       |   |-- bin
|       |   `-- lib
|       `-- src
|-- homework_2
|-- ...
```

A   Using the terminal (4 points)

This exercise focuses on using the terminal efficiently.
Every question in this exercise must be answered with a command on a single line. You should save each of these lines into the file `homework_1/task_1/commands.sh`.

Make sure all commands run from within `homework_1/task_1/` folder correctly.

1. **(1 points)** Count how many lines are there in "`data.dat`".

2. **(1 points)** Count how many lines of those contain "`dolor`" or "`dalor`"?

3. **(1 points)** Count how many words are there in "`data.dat`"?

4. **(1 points)** Count how many of those start with "`mol`"?

Hint: you might want to use `wc` command.

B   Build System (6 points)

All the documentation for this exercise is in the `cpp-homeworks/homework_1/task_2/README.md` file. You should `cd` into the task directory, open a text editor, and start working.
Basically the output of your exercise should be:

5. **(2 points)** A build script, `build.sh`, that allows to build the library and the example program within the exercise directory. So, basically leave this script on `cpp-homeworks/homework_1/task_2/build.sh`

6. **(2 points)** The same holds true for the installaion script `install.sh`

7. **(2 points)** And the `CMakeLists.txt` files