



Exercises bash scripting tutorial 2

Download the files:

<https://www.dropbox.com/s/xiyp4n9ko5lvt95/BashScripting2.zip>

Work locally on your laptop

The following instructions have been tested on Ubuntu. Mac and Windows users can use Ubuntu in the Virtual Machine (setup distributed by Stefan Wyder)

1. Copy the zipped data to your computer:

```
wget https://www.dropbox.com/s/xiyp4n9ko5lvt95/BashScripting2.zip
```
2. Unzip the data:

```
unzip BashScripting2.zip
```

Exercise 1:

- a) Write a script to unzip all files in the "Data" folder.
- b) Write a script to go through all fastq files in the folder and count the number of reads in the files (hint: line number divided by 4 gives the number of reads) and write those to a file called "readNumber.txt".

Exercise 2:

- a) Write a script which renames all unpaired files to "*_unpair.fastq".
- b) Merge all unpaired files into one file called "Unpair.fastq"

Exercise 3:

Write function to compress a file (keep the original file) and moves it to a specified folder. Make sure that you check if the folder exists and if not create it. Apply it for all fastq files in the folder and move them to a folder called "compressed"

Exercise 4:

- a) Write a script to convert the "ERR000061.1_R1.fastq" file to a FASTA file
- b) Turn the above script into a function and apply it to all fastq files in your folder