

Opgave 5

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1 UNIX

1.1 Download filer vha wget

```
1 [chris@localhost opgave5]$ wget http://people.binf.ku.dk/wb/lpp2014/week40/
  handin_solution_3.1.1.py
2 --2014-10-07 00:36:56-- http://people.binf.ku.dk/wb/lpp2014/week40/handin_solution_3.1
  .1.py
3 Loser people.binf.ku.dk (people.binf.ku.dk)... 130.225.125.162
4 Tilslutter people.binf.ku.dk (people.binf.ku.dk)|130.225.125.162|:80... forbundet.
5 HTTP forespørgsel sendt, afventer svar... 200 OK
6 Langde: 261 [text/x-python]
7 Gemmer til: 'handin_solution_3.1.1.py'
8
9 100%[=====>] 261 --.-K/s om 0s
10
11 2014-10-07 00:36:56 (19,6 MB/s) - 'handin_solution_3.1.1.py' gemt [261/261]
12 [chris@localhost opgave5]$ wget http://people.binf.ku.dk/wb/lpp2014/week40/
  handin_solution_3.1.2.py
13 --2014-10-07 00:37:16-- http://people.binf.ku.dk/wb/lpp2014/week40/handin_solution_3.1
  .2.py
14 Loser people.binf.ku.dk (people.binf.ku.dk)... 130.225.125.162
15 Tilslutter people.binf.ku.dk (people.binf.ku.dk)|130.225.125.162|:80... forbundet.
16 HTTP forespørgsel sendt, afventer svar... 200 OK
17 Langde: 456 [text/x-python]
18 Gemmer til: 'handin_solution_3.1.2.py'
19
20 100%[=====>] 456 --.-K/s om 0s
21
22 2014-10-07 00:37:16 (40,9 MB/s) - 'handin_solution_3.1.2.py' gemt [456/456]
```

1.2 Sammenligning af filerne med diff

```
1 [chris@localhost opgave5]$ diff handin_solution_3.1.1.py handin_solution_3.1.2.py
2 4a5
3 >      # Read file as a list of lines and iterate over it
4 6a8
5 >      # Create empty field list for numeric values
6 8a11
7 >      # Translate string values to floats
8 11a15
9 >      # Add field_list.num to outer list
```

Diff lister de stykker der er forskellige. Tallene før linjen fortæller hvor i filen de findes. 4a5 betyder forskellen starter på linje 5 karakter 4. Større/mindre

end tegnet indikerer hvilken fil de ekstra tegn findes i. Den skal opfattes som en pil, så for at gå fra fil 1 til fil 2, så skal der tilføres de følgende tegn til. Hvis pilen havde vendt omvendt, skulle tegnene fjernes.

1.3 Side-by-side view af diff output

```

1 [chris@localhost opgave5]$ diff --side-by-side handin_solution_3.1.1.py
  handin_solution_3.1.2.py
2 with open("experimentalResults.txt") as f:                                with open("
  experimentalResults.txt") as f:
3
4     list_of_lists = []                                                    list_of_lists = []
5
6                                                                           >
6                                                                           > # Read file as a
6                                                                           > list of lines and
6                                                                           > iterate over it
6                                                                           > for line in f.
7
7     for line in f.readlines():
7     readlines():
8
8                                                                           >
8                                                                           > # Create empty
8                                                                           > field list for numeric
8                                                                           > values
8                                                                           > field_list_num =
9
9                                                                           >
10
10     field_list_num = []
10     []
11
11                                                                           >
11                                                                           > # Translate
11                                                                           > string values to
11                                                                           > floats
11                                                                           > for element in
12
12
12
13     for element in line.split():
13     line.split():
13     field_list_num.append(float(element))
13     field_list_num.append(float(element))
14
14
14
15
15
15
16
16                                                                           >
16                                                                           > # Add
16                                                                           > field_list_num to
16                                                                           > outer list
16                                                                           > list_of_lists.
17
17     list_of_lists.append(field_list_num)
17     append(field_list_num)

```

2 Python

Her er output fra python programmet. Kan også ses i txt filen output.txt.

```

1 DNA sequence: ACCCGT
2 RNA sequence: UGACG
3 RNA sequence: ACCCGU
4 DNA sequence: TGACG
5 DNA sequence: ACCCGT
6 RNA sequence: UGACG

```