Opgave 1

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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 foresporgsel 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 foresporgsel 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                                                             >           # Read file as a
                                                                    list of lines and
                                                                    iterate over it
7      for line in f.readlines():                                        for line in f.
           readlines():
8
9                                                             >               # Create empty
                                                                    field list for numeric
                                                                    values
10         field_list_num = []                                              field_list_num =
               []
11
12                                                            >               # Translate
                                                                    string values to
                                                                    floats
13         for element in line.split():                                      for element in
               line.split():
14             field_list_num.append(float(element))
                   field_list_num.append(float(element))
15
16                                                            >               # Add
                                                                    field_list_num to
                                                                    outer list
17         list_of_lists.append(field_list_num)                             list_of_lists.
               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
```