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COMP205 Systems Programming
Week #3 Lab #1
Section #1

Complete the tasks given and answer the questions using the appropriate commands. You MUST show all the commands you run to get full credits.

PART#1

You're given the Airports.csv file. Download it and send it to your home directory on the server.

1. **[10 PTS]** In which country is the airport with the largest longtitude? HINT: go through the man page of sort.

```
[Onur-MacBook-Pro:~ onurpasa$ sort -t ',' -k7 -n Airports.csv | tail -1
 Savusavu Airport,Savusavu,Fiji,SVU,NFNS,-16.8027992249,179.341003418,17,12,U
```

PART #2:

1. **[2 PTS]** Print the string $HOME and its contents on the screen:
   e.g. $HOME:/home/jane

```
(base) kerim@kerim:~/Masaüstü$ echo "$HOME"
/home/kerim
```

2. **[3 PTS]** Create the nested folders comp205/week3 in one command

```
/home/kerim
(base) kerim@kerim:~/Masaüstü$ mkdir -p comp205/week3
(base) kerim@kerim:~/Masaüstü$ ls
Airports.csv  comp205  Eclipse  MakineÖğrenimiCsvler
(base) kerim@kerim:~/Masaüstü$ ls comp205/
week3
```

Enter comp205/week3 and do the remaining tasks inside this folder

3. **[5 PTS]** create the following empty files
   a. data_01, data_02, …., data_10
   b. rawdata1, rawdata2, ….., rawdata10

```
(base) kerim@kerim:~/Masaüstü/comp205/week3$ touch data_{0..10}
(base) kerim@kerim:~/Masaüstü/comp205/week3$ touch rawdata{0..10}
(base) kerim@kerim:~/Masaüstü/comp205/week3$ ls
data_0   data_2  data_5  data_8     rawdata1   rawdata3  rawdata6  rawdata9
data_1   data_3  data_6  data_9     rawdata10  rawdata4  rawdata7
data_10  data_4  data_7  rawdata0   rawdata2   rawdata5  rawdata8
(base) kerim@kerim:~/Masaüstü/comp205/week3$
```

4. **[5 PTS]** List all the files in week3 that contain "data_" and have 2 digits after the underscore

```
(base) kerim@kerim:~/Masaüstü/comp205/week3$ ls *data_??
data_10
(base) kerim@kerim:~/Masaüstü/comp205/week3$
```

5. **[5 PTS]** Remove all data files except those ending in 06 or 08, using wildcards, met-characters, etc.

```
(base) kerim@kerim:~/Masaüstü/comp205/week3$ rm -r data_{0..5} data_{7,9,10}
(base) kerim@kerim:~/Masaüstü/comp205/week3$ ls
data_6  rawdata0  rawdata10  rawdata3  rawdata5  rawdata7  rawdata9
data_8  rawdata1  rawdata2   rawdata4  rawdata6  rawdata8
```

6. **[10 PTS]** Create a file with the following command using only 1 echo command. The words are separated by a tab character and the name of the file is shopping_list. Then view the contents of the list from the command line.

   Item   Quantity
   Apple   10
   Orange 5
   Banana 7

```
(base) kerim@kerim:~/Masaüstü/comp205/week3$ echo -e "Item\tQuantity\nApple\t10\nOrange\t5\nBanana\t7" > shopping_list
(base) kerim@kerim:~/Masaüstü/comp205/week3$ ls
data_6   rawdata0  rawdata10  rawdata3  rawdata5  rawdata7  rawdata9
data_8   rawdata1  rawdata2   rawdata4  rawdata6  rawdata8  shopping_list
(base) kerim@kerim:~/Masaüstü/comp205/week3$ cat shopping_list
Item    Quantity
Apple   10
Orange  5
Banana  7
(base) kerim@kerim:~/Masaüstü/comp205/week3$
```

7. **[5 PTS]** Add "Eggs 30" to your shopping list from the command line (i.e. you cannot use a text editor such as nano)

```
(base) kerim@kerim:~/Masaüstü/comp205/week3$ echo -e "Eggs\t30" >> shopping_list
(base) kerim@kerim:~/Masaüstü/comp205/week3$ cat shopping_list
Item    Quantity
Apple   10
Orange  5
Banana  7
Eggs    30
(base) kerim@kerim:~/Masaüstü/comp205/week3$
```

8. **[5 PTS]** Print only the items on your shopping list on the screen (i.e. without the header "Item   Quantity"

```
Banana  7
Eggs    30
(base) kerim@kerim:~/Masaüstü/comp205/week3$ tail -n +2 shopping_list
Apple   10
Orange  5
Banana  7
Eggs    30
(base) kerim@kerim:~/Masaüstü/comp205/week3$
```

9. **[5 PTS]** Print only the items on the screen (i.e. without the header "Item"). **HINT: If you're ever stuck go to the man page.**

```
Banana  7
Eggs    30
(base) kerim@kerim:~/Masaüstü/comp205/week3$ tail -n +2 shopping_list | cut -f1
Apple
Orange
Banana
Eggs
(base) kerim@kerim:~/Masaüstü/comp205/week3$
```

10. **[10 PTS]** Search about ANSI-C Quoting online and using ansi-c style quoting print "hello" on the screen preceded by a tab and followed by a newline character.

```
(base) kerim@kerim:~/Masaüstü/comp205/week3$ tail -n +2 shopping_list | cut -f1
Apple
Orange
Banana
Eggs
(base) kerim@kerim:~/Masaüstü/comp205/week3$ echo -e "\thello"
        hello
(base) kerim@kerim:~/Masaüstü/comp205/week3$
```