

Labs - Linux's advanced notions

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Math's commands

The flows

ReGex / Sed



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- ▶ Compare the result



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- ▶ Perform a sequence of numbers from 1 to 100 with a step of 6 and redirect the output to a file named "sequence1.txt"



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- ▶ Perform the previous calculation with 4 numbers after the decimal point and redirect the output to a file named "calculation2.txt"
- ▶ Compare the result
- ▶ Perform a sequence of numbers from 1 to 100 with a step of 6 and redirect the output to a file named "sequence1.txt"
- ▶ Perform the previous sequence and adapt the output format to separate numbers with ';' and redirect the output on the "sequence1.txt" file (without deleting the previous sequence in the file)



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- ▶ Display the content of Count.txt in stdout



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- ▶ Combine the two SHELL COMMAND `cat` and `wc` (redirect stdout of `cat` command in stdin of `wc` command) to count the number of lines in Count.txt



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- ▶ With the precedent command redirect the stdout flow in LocateCountFile.txt file



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- ▶ List files in a non existing directory and redirect stderr flow in `/dev/null` to get a clear result



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- ▶ With the SHELL command find, locate Count.txt
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- ▶ List files in a non existing directory and redirect stderr flow in /dev/null to get a clear result
- ▶ List files in a non existing directory and redirect stdout and stderr flows in KoList.txt



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- ▶ Display the content of Count.txt in stdout
- ▶ Combine the two SHELL COMMAND cat and wc (redirect stdout of cat command in stdin of wc command) to count the number of lines in Count.txt
- ▶ With the SHELL command find, locate Count.txt
- ▶ With the precedent command redirect the stdout flow in LocateCountFile.txt file
- ▶ List files in a non existing directory and redirect stderr flow in /dev/null to get a clear result
- ▶ List files in a non existing directory and redirect stdout and stderr flows in KoList.txt
- ▶ Use the SHELL cat command to populate a file named Myletter.txt with input (stdin) from the user and ending by the string "FIN" Example :



ReGex / Sed



Text file

- Put this content in the `/home/isen/regex.txt` file.

Toto loves titi

or so

TOTO LOVE TITI

and again

TOTO or Mr TOTO loves TITI Ms TITI

/NAME/ likes bash

I do not know what to say To_Delete

and you what do you mean?

/NAME/ toto /NAME/ titi /NAME/

toto titi toto titi toto titi to-ti



Grep

- ▶ Show lines contains the string “toto” with non case sensitivity



Grep

- ▶ Show lines contains the string “toto” with non case sensitivity
- ▶ Show lines that start with ‘/’



Grep

- ▶ Show lines contains the string “toto” with non case sensitivity
- ▶ Show lines that start with ‘/’
- ▶ Show lines that end with ‘?’



Grep

- ▶ Show lines contains the string “toto” with non case sensitivity
- ▶ Show lines that start with ‘/’
- ▶ Show lines that end with ‘?’
- ▶ Show lines that contain capital letters



Grep

- ▶ Show lines contains the string “toto” with non case sensitivity
- ▶ Show lines that start with ‘/’
- ▶ Show lines that end with ‘?’
- ▶ Show lines that contain capital letters
- ▶ Show lines that contain an ‘A’ OR a ‘b’



Grep

- ▶ Show lines contains the string “toto” with non case sensitivity
- ▶ Show lines that start with ‘/’
- ▶ Show lines that end with ‘?’
- ▶ Show lines that contain capital letters
- ▶ Show lines that contain an ‘A’ OR a ‘b’
- ▶ Show lines that contain an ‘A’ AND a ‘b’



Grep

- ▶ Show lines contains the string “toto” with non case sensitivity
- ▶ Show lines that start with ‘/’
- ▶ Show lines that end with ‘?’
- ▶ Show lines that contain capital letters
- ▶ Show lines that contain an ‘A’ OR a ‘b’
- ▶ Show lines that contain an ‘A’ AND a ‘b’
- ▶ Show lines that have 2 ‘t’



Sed

- ▶ Replace the first occurrence in each line of the word TOTO by TITI



Sed

- ▶ Replace the first occurrence in each line of the word TOTO by TITI
- ▶ Replace all `‘/NAME/’` with your first name



Sed

- ▶ Replace the first occurrence in each line of the word TOTO by TITI
- ▶ Replace all `/NAME/` with your first name
- ▶ Delete all lines that contain `'To_Delete'`



Sed

- ▶ Replace the first occurrence in each line of the word TOTO by TITI
- ▶ Replace all `/NAME/` with your first name
- ▶ Delete all lines that contain `'To_Delete'`
- ▶ Add a line containing `'ERROR'` before each line which does not have a capital letter at the beginning



Sed

- ▶ Replace the first occurrence in each line of the word TOTO by TITI
- ▶ Replace all `/NAME/` with your first name
- ▶ Delete all lines that contain `'To_Delete'`
- ▶ Add a line containing `'ERROR'` before each line which does not have a capital letter at the beginning
- ▶ Replace `'?'` by `'!'`



Sed

- ▶ Replace the first occurrence in each line of the word TOTO by TITI
- ▶ Replace all `/NAME/` with your first name
- ▶ Delete all lines that contain `'To_Delete'`
- ▶ Add a line containing `'ERROR'` before each line which does not have a capital letter at the beginning
- ▶ Replace `'?'` by `'!'`
- ▶ Replace `'titi'` by `'toto'` and `'toto'` by `'titi'`



Text file

- ▶ Put this content in the `/home/isen/advancedRegex.txt` file.

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192.168.0.1

456.567.0.1

192.168.0.1.2

d8:43:ae:2e:03:01

087:43:ae:2e:03:01



Advanced ReGex

- ▶ Write the regex to check lines that contains Prenom and Name (Prenom and Name are strings separating with a space, containing only letters and strating with a capital letters)



Advanced ReGex

- ▶ Write the regex to check lines that contains Prenom and Name (Prenom and Name are strings separating with a space, containing only letters and starting with a capital letter)
- ▶ Write the regex to check lines that contains a phone number (Phone number is a string containing only 10 numbers and starting with "06" or "07")



Advanced ReGex

- ▶ Write the regex to check lines that contains Prenom and Name (Prenom and Name are strings separating with a space, containing only letters and starting with a capital letter)
- ▶ Write the regex to check lines that contains a phone number (Phone number is a string containing only 10 numbers and starting with "06" or "07")
- ▶ Write the regex to check lines that contains an email address (Email address is a string containing identifier, provider and a domain respectively separated by a "@" and ".". Example : toto83@gmail.com)



Bonus

- ▶ Write the regex to check if a string is a @IP (4 digit separated with '.', each digit is between 0 and 255)



Bonus

- ▶ Write the regex to check if a string is a @IP (4 digit separated with '.', each digit is between 0 and 255)
- ▶ Write the regex to check if a string is a @MAC (6 digit separated with ':', each digit is coded in hexa)

