



## Week 2: Assignment 1

### Want to help a Mathematician?

[ Last Updated on: **11th April 2021, 23:00 Hrs** ]

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#### Aim

A mathematician friend of yours has a bunch of documents. He wants to extract all digits and find out the number of lines with one or more digits in all these documents. Can you help him with the use of Regular Expressions (Regex)?

You can write a **Shell (.sh)** script to scan through text in these documents and help your friend achieve his goal.

#### Given

- Two files are provided to solve this assignment.
  - Skeleton program file: **assignment1.sh**
  - Sample TXT file: **assignment1\_sample.txt**

#### Procedure

- Open the skeleton program file, **assignment1.sh**.
- You will notice pre-written comments included in skeleton program for your assistance to solve the assignment.
- To run and debug your solution, type the below command in Terminal:

```
bash assignment1.sh assignment1_sample.txt
```



This command will run the shell script **assignment1.sh** with the input argument of provided TXT file.

- Refer the **Expected Output** section below and debug your code to get the correct output.

## Expected Output

- The provided sample TXT file, **assignment1\_sample.txt** consists of some random text.
- For example, the contents of this TXT file are as shown below:

Electronic mail is a method of exchanging digital messages between computer users. Its use in the 1960s and by the 1970s had taken the form now recognised as email. These

08av , 29809, pankajdhaka.dav, 165 .

23673 ; meetshrotriya; 221965; 1592yahoo.in  
praveen\_solanki29@yahoo.com  
tanmaysharma07@gmail.com  
kartikkumar781@gmail.com  
arun.singh2205@gmail.com

sukalyan\_bhakat@us.in.y.z  
These are incorrect:

065  
kartikkumar781r2#  
1975, 123

- The expected output of program **assignment1.sh** i.e., number of lines with one or more digits and all digits found in the given document is shown below:

Number of lines having one or more digits are: 4  
Digits found:  
29809  
165  
23673  
221965  
065  
1975  
123



## Grading and Submission Instructions

- Navigate to the folder where the **ey-mooc-grader-sfc** application resides.
- To grade your solution, run the **check** command of the application as follows:

```
./ey-mooc-grader-sfc check -w 2 -a 1 Week_2/Assignment_1/assignment1.sh
```



- This will run your program **assignment1.sh** against random test cases and grade it. Marks and appropriate remarks will be provided as shown in Figure 1.
- Your program file **assignment1.sh**, marks scored and remarks will get uploaded to the MOOC portal.

```

erts-09@erts:~/Desktop/SFC_PartI_MOOC
File Edit View Search Terminal Help
~/Desktop/SFC_PartI_MOOC 20:25:22
./ey-mooc-grader-sfc check -w 2 -a 1 Week_2/Assignment_1/assignment1.sh

Course Name: Software Foundation (Part I)

Checking your submission for Week - 2 Assignment number - 1

Checking submission type ...
Submission type is accepted

Downloading test scripts ...
100% [.....] 5827 / 5827
Download complete

Extracting files ...
Extraction complete

#### RESULT ####
+-----+-----+-----+-----+
| TEST CASE NUMBER | TEST CASE PASSED? (Y/N) | MARKS SCORED | REMARKS |
+-----+-----+-----+-----+
| 1 | Y | 5.0 | Good work. |
| 2 | Y | 10.0 | Good work. |
+-----+-----+-----+-----+

REMARKS = Congrats! You have successfully completed the assignment. Keep it up!
MARKS = 10

MARKS AND REMARKS UPLOADED ON THE PORTAL SUCCESSFULLY
~/Desktop/SFC_PartI_MOOC 20:25:42

```

Figure 1: Output of running check command for Week 2 Assignment 1

- You can verify this by running the **status** command of the application as given below, refer Figure 2.

```
./ey-mooc-grader-sfc status -w 2 -a 1
```

```

erts-09@erts:~/Desktop/SFC_PartI_MOOC
File Edit View Search Terminal Help
~/Desktop/SFC_PartI_MOOC 20:26:06
./ey-mooc-grader-sfc status -w 2 -a 1

Course Name: Software Foundation (Part I)

Checking status of your submission for Week - 2 Assignment number - 1

#### LAST RECORDED RESULT ####

REMARKS      : Congrats! You have successfully completed the assignment. Keep it up!
MARKS        : 10
UPLOAD DATE-TIME : 2021-04-03 20:25:42

~/Desktop/SFC_PartI_MOOC 20:26:13

```

Figure 2: Output of running status command for Week 2 Assignment 1

## References

- Nano Editor
  - [How to use Nano Text Editor](#)
  - [Nano Editor Official Docs](#)
- Vim Editor
  - [Interactive Vim Tutorial](#)
- Regular Expressions
  - [Regex Interactive Tutorial by RegexOne](#)

- [RegEx Blog on DEV community](#)
  - [Tutorial with Examples on Medium](#)
  - [CheatSheet by MIT Edu](#)
  - [CheatSheet on RegEx](#)
  - Online RegEx Tools to test and validate your expressions
    - [RegExr](#)
    - [REGEXPER Documentation](#)
    - [REGEXPER Example](#)
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**All The Best!**

