



Week 1: Assignment 3

Match the Pattern and Filter

[Last Updated on: **08th March 2021, 16:00 Hrs**]

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Aim

In this assignment, you will find and match the pattern to filter the data in a given file with **Shell (.sh)** scripting. You will be using few shell commands to work with input arguments in a shell file.

The program is ideally expected to print the 1st and 3rd column details of CSV file (provided as input argument), only if the first column data begins with letter "**S**" and alphabetically sort it based on the first column data. The 1st and 3rd column data should be separated with a comma (,).

Given

Two files are provided to solve this assignment.

- Skeleton program file: **assignment3.sh**
- Sample CSV file: **assignment3_sample.csv**

Procedure

- Open the skeleton program file, **assignment3.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 assignment3.sh assignment3_sample.csv
```



This command will run the shell script **assignment3.sh** with the input argument of provided CSV file.

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

Expected Output

- The provided sample CSV file, **assignment3_sample.csv** consists data with fields: **First Name**, **Last Name**, **Gender** and **email ID**.
- For example, consider the first 15 rows from this CSV file as shown below:

```
First Name,Last Name,Gender,email ID
Fowler,Matschuk,Male,fmatschuk0@twitpic.com
Berget,Grigorisu,Female,bgrigorisu1@altervista.org
Thor,Goburn,Male,tgoburn2@microsoft.com
Sile,Barhams,Female,sbarhams3@accuweather.com
Valle,Houldey,Male,vhouldey4@npr.org
Miguel,Scotti,Male,mscott5@comsenz.com
Bear,Darwen,Male,bdarwen6@ebay.com
Camila,Kelson,Female,ckelson7@ca.gov
Julian,McCarlich,Male,jmccarlich8@pinterest.com
Shae,Bonham,Female,sbonham9@networkadvertising.org
Antonie,De Normanville,Female,adenormanvillea@ihg.com
Asa,Duckerin,Male,aduckerinb@sohu.com
Tulley,Bassford,Male,tbassfordc@miitbeian.gov.cn
Twila,Gobel,Female,tgobeld@cblocal.com
```



- The expected output of program **assignment3.sh** i.e., print the details of 1st and 3rd column, only if the first column data begins with letter "S" and alphabetically sort it based on the first column, also 1st and 3rd column data should be separated with a comma (,) is shown below:

```
Shae,Female
Sile,Female
```



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 1 -a 3 Week_1/Assignment_3/assignment3.sh
```



- This will run your program **assignment3.sh** against random test cases and grade it. Marks and appropriate remarks will be provided as shown in Figure 1.
- Your program file **assignment3.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 20:19:10
./ey-mooc-grader-sfc check -w 1 -a 3 Week_1/Assignment_3/assignment3.sh

Course Name: Software Foundation (Part I)

Checking your submission for Week - 1 Assignment number - 3

Checking submission type ...
Submission type is accepted

Downloading test scripts ...
100% [.....] 17306 / 17306
Download complete

Extracting files ...
Extraction complete

### RESULT ###
+-----+-----+-----+-----+
| TEST CASE NUMBER | TEST CASE PASSED? (Y/N) | MARKS SCORED | REMARKS |
+-----+-----+-----+-----+
| 1 | Y | 3.33 | Good work. |
| 2 | Y | 6.66 | Good work. |
| 3 | Y | 9.99 | 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 20:19:27

```

Figure 1: Output of running check command for Week 1 Assignment 3

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

```
$ ./ey-mooc-grader-sfc status -w 1 -a 3
```

```

erts-09@erts:~/Desktop/SFC_PartI_MOOC
File Edit View Search Terminal Help
~/Desktop/SFC_PartI_MOOC 20:19:56
./ey-mooc-grader-sfc status -w 1 -a 3

Course Name: Software Foundation (Part I)

Checking status of your submission for Week - 1 Assignment number - 3

### LAST RECORDED RESULT ###

REMARKS      : Congrats! You have successfully completed the assignment. Keep it up!
MARKS        : 10
UPLOAD DATE-TIME : 2021-04-03 20:19:26
~/Desktop/SFC_PartI_MOOC 20:20:00

```

Figure 2: Output of running status command for Week 1 Assignment 3

References

- Nano Editor
 - [How to use Nano Text Editor](#)
 - [Nano Editor Official Docs](#)
- Vim Editor
 - [Interactive Vim Tutorial](#)
- Passing arguments to Bash script
 - [Bash Scripting Tutorial](#)

- Sort command
 - [Man Page of Sort with examples](#)
 - [Sort by keys](#)
 - Cut command
 - [Examples of Cut command](#)
 - [Cut command Examples](#)
 - Grep command
 - [Man Page of Grep with examples](#)
 - [Grep to find text in Files](#)
 - [Examples of Grep Command](#)
-

All The Best!

