Week 1: Assignment 2
Match the Pattern with Shell Scripting

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

Aim

In this assignment, you will be find and match the pattern 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 complete row details of CSV file (provided as input argument), only if the first column data begins with letter "**R**" and alphabetically sort it based on the first column data.

Given

Two files are provided to solve this assigment.

- Skeleton program file: **`assignment2.sh`**
- Sample CSV file: **`assignment2_sample.csv`**

Procedure

- Open the skeleton program file, **`assignment2.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 assignment2.sh assignment2_sample.csv
  ```

  This command will run the shell script **`assignment2.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, **`assignment2_sample.csv`** consists data with fields: ***First Name***, ***Last Name***, ***Gender*** and ***email ID***.
- For example, consider the rows 21-40 from this CSV file as shown below:

```
Gerry,Thebeau,Female,gthebeauj@shop-pro.jp
Row,Penhaligon,Female,rpenhaligonk@bbc.co.uk
Juliet,Tall,Female,jtalll@bbb.org
Axe,Angear,Male,aangearm@cyberchimps.com
Josefina,Keeffe,Female,jkeeffen@flickr.com
Osbourne,Village,Male,ovillageo@istockphoto.com
Shay,Ert,Female,sertp@hud.gov
Regen,Stace,Male,rstaceq@businessinsider.com
Kennedy,Martine,Male,kmartiner@slate.com
Kyle,Backe,Male,kbackes@livejournal.com
Jeanette,Muzzillo,Female,jmuzzillot@desdev.cn
Job,Andrey,Male,jandreyu@ca.gov
Bernie,Brolechan,Male,bbrolechanv@icq.com
Gonzalo,Poynser,Male,gpoynserw@furl.net
Templeton,Bradane,Male,tbradanex@ft.com
Kippy,Gavini,Female,kgaviniy@toplist.cz
Simeon,Dearle,Male,sdearlez@dailymail.co.uk
Robb,Langfitt,Male,rlangfitt10@gmpg.org
Anette,Pitchford,Female,apitchford11@meetup.com
Maison,Crady,Male,mcrady12@npr.org
```

- The expected output of program **`assigment2.sh`** i.e., print complete row details, only if the first column data begins with letter "**R**" and alphabetically sort it based on the first column is shown below:

```
Regen,Stace,Male,rstaceq@businessinsider.com
Robb,Langfitt,Male,rlangfitt10@gmpg.org
Row,Penhaligon,Female,rpenhaligonk@bbc.co.uk
```

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 2 Week_1/Assignment_2/assignment2.sh
```

- This will run your program **`assignment2.sh`** against random test cases and grade it. Marks and appropriate remarks will be provided as shown in Figure 1.
- Your program file **`assignment2.sh`**, marks scored and remarks will get uploaded to the MOOC portal.

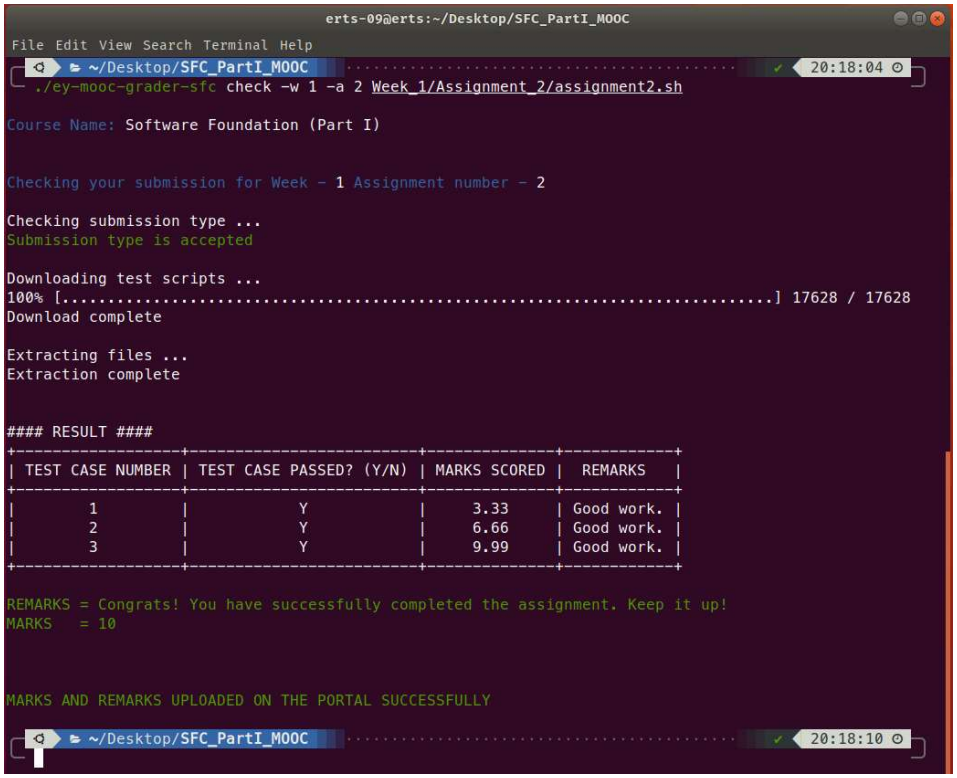

Figure 1: Output of running check command for Week 1 Assignment 2

- 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 2
```

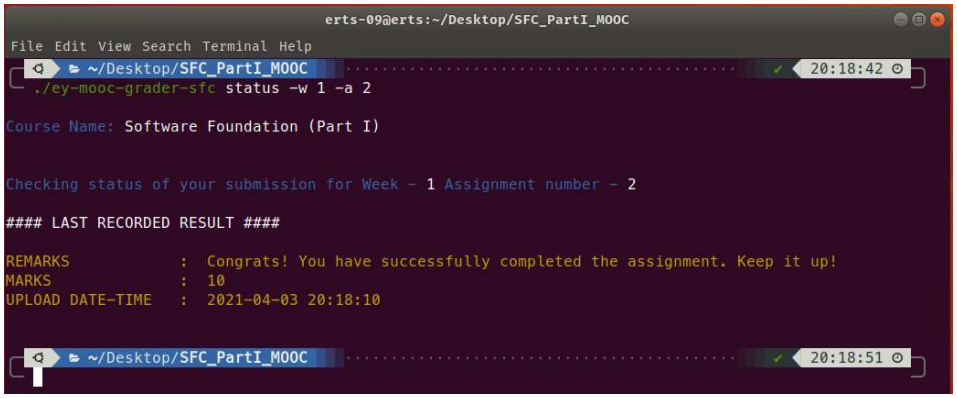

Figure 2: Output of running status command for Week 1 Assignment 2

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
- Grep command
  - Man Page of Grep with examples
  - Grep to find text in Files
  - Examples of Grep Command

All The Best!