Week 1: Assignment 1
Getting started with Shell Scripting

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

Aim

In this assignment, you will be getting started 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 alphabetically sort the CSV file provided as input argument based on the first column data.

Given

Two files are provided to solve this assigment.

- Skeleton program file: `assignment1.sh`
- Sample CSV file: `assignment1_sample.csv`

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.csv
  ```

  This command will run the shell script `assignment1.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, **`assignment1_sample.csv`** consists data with fields: ***First Name***, ***Last Name***, ***Gender*** and ***email ID***.
- For example, consider the first 10 rows from this CSV file as shown below:

```
First Name,Last Name,Gender,email ID
Fowler,Matschuk,Male,fmatschuk0@twitpic.com
Berget,Grigoriscu,Female,bgrigoriscu1@altervista.org
Thor,Goburn,Male,tgoburn2@microsoft.com
Sile,Barhams,Female,sbarhams3@accuweather.com
Valle,Houldey,Male,vhouldey4@npr.org
Miguel,Scotti,Male,mscotti5@comsenz.com
Bear,Darwen,Male,bdarwen6@ebay.com
Camila,Kelson,Female,ckelson7@ca.gov
Julian,McCarlich,Male,jmccarlich8@pinterest.com
```

- The expected output of program **`assigment1.sh`** i.e., alphabetically sorting the above data based on first column is shown below:

```
Bear,Darwen,Male,bdarwen6@ebay.com
Berget,Grigoriscu,Female,bgrigoriscu1@altervista.org
Camila,Kelson,Female,ckelson7@ca.gov
First Name,Last Name,Gender,email ID
Fowler,Matschuk,Male,fmatschuk0@twitpic.com
Julian,McCarlich,Male,jmccarlich8@pinterest.com
Miguel,Scotti,Male,mscotti5@comsenz.com
Sile,Barhams,Female,sbarhams3@accuweather.com
Thor,Goburn,Male,tgoburn2@microsoft.com
Valle,Houldey,Male,vhouldey4@npr.org
```

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 1 Week_1/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.

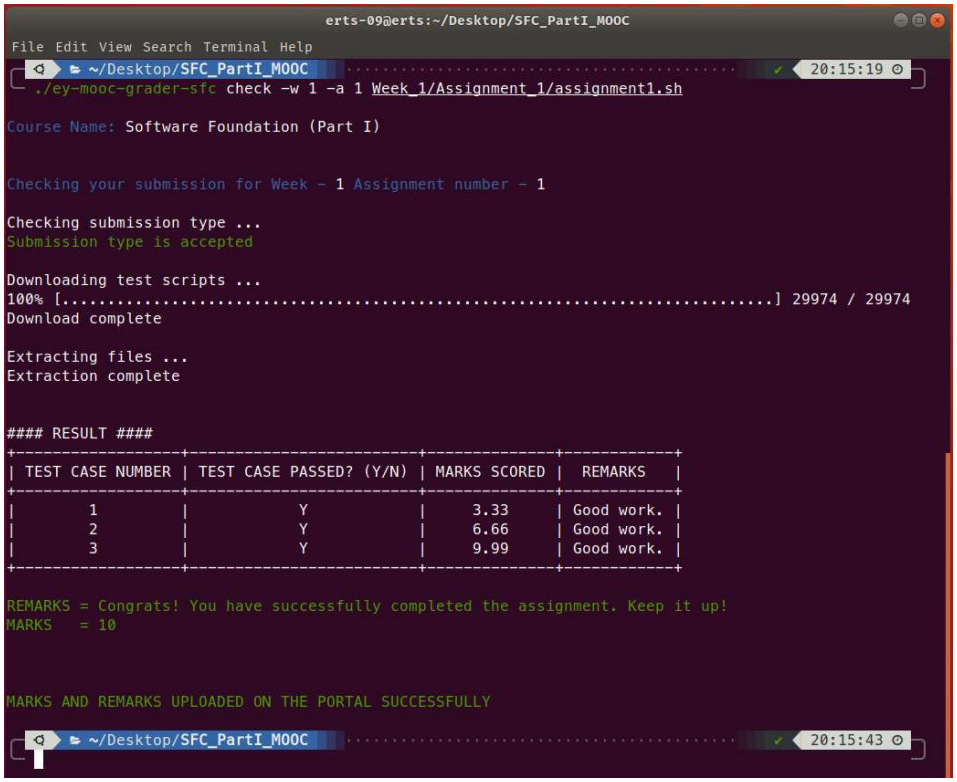

Figure 1: Output of running check command for Week 1 Assignment 1

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

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

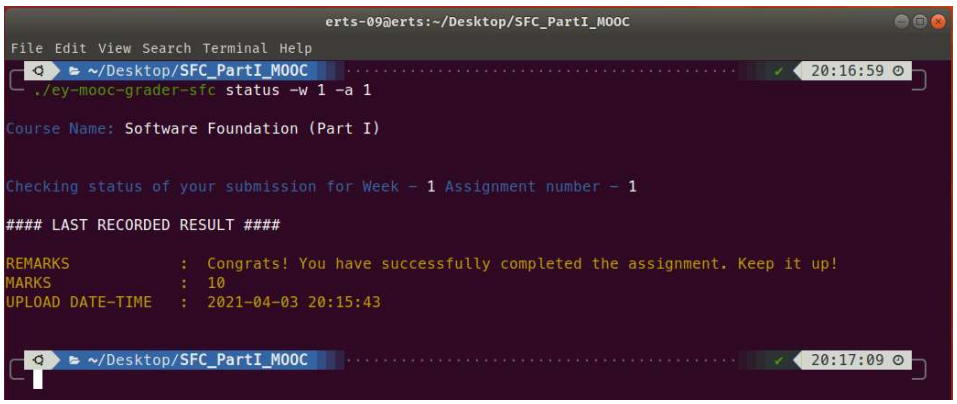

Figure 2: Output of running status command for Week 1 Assignment 1

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

All The Best!