Lab Activity 2 - SHELL
Software Systems Development – Monsoon 2022
Due Date: 11 July 2022, 05:00 PM

Instructions

1. Deadline mentioned during the Lab is strictly immutable. **No extensions will be given**.
2. Any **naming convention** mentioned in the lab activity **must be followed strictly** or marks may be deducted for the same.
3. Any **plagiarized content will fetch zero** marks for the current lab and will be followed by strict action against the students involved. However, discussion of ideas is allowed.
4. Don't use any supporting statement (like: Enter file name, Answer is ….) in your code unless specified. It may result in failure of test case which in turn lead to **zero marks**. Stick to Input and Output format as mentioned in question.
5. Topics/commands covered in the lab are sufficient to solve the problems and it is recommended to use commands taught in lab to solve the questions.

Activity

1. Write a bash script (**q1.sh**) that takes path of a text file as a command line argument and outputs the middle line of the text file. **(10 Marks)**
   - **Input Constraints** – The path will be a valid nonempty file path.
   - **Output Constraints –** outputs the middle line of the text file.

   Example:

   Input - 1

   ```
   Hello World!!
   SSD Lab 2
   Shell Script
   ```

   Output - 1

   ```
   SSD Lab 2
   ```

   Input-2

   ```
   Hello World!!
   SSD Lab 2
   Shell Script
   All the best
   ```
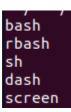
   Output - 2

   ```
   SSD Lab 2
   ```

2. Write a bash script (**q2.sh**) to print names of all the shell that belongs to ' /usr '. **(10 Marks)**

HINT: ' /etc/shells ' may help

Sample:

```
# /etc/shells: valid login shells
/bin/sh
/bin/bash
/usr/bin/bash
/bin/rbash
/usr/bin/rbash
/usr/bin/sh
/bin/dash
/usr/bin/dash
/usr/bin/screen
```

Output

```
bash
rbash
sh
dash
screen
```

Submission Guidelines

1. Create a folder with your **roll number as its name** and containing the following files corresponding to the questions:
   a. q1.sh
   b. q2.sh
   c. README.md

   Compress the folder as a zip file (name should be **<roll_number>.zip**) and then upload it on the Moodle before deadline.

2. **README.md** should contain steps for execution of your script and any extra information that you want the evaluator to know before running your script, such as dependencies on some external tools or libraries.