

Project #2 [65 points]

Due date is Monday, 09/24. Submission instructions (“ScriptNamingFiles.docx”) are posted on the course site on Canvas in the folder “Instructions” in “Modules”.

Attention! In the beginning of each program (Bash script file), after “shebang” line, there should be comments with the author’s name and the purpose of a script. Up to 3 points will be subtracted from your score for each part of the project if you don’t include this information.

A. [30 points] Write a Bash shell script named **info.sh**. The command for execution must include two command-line parameters: the name of the file that will be displayed and the name of the directory the listing of which you want to obtain. The output of this script must contain the following information:

- The name of your script;
- “Usage” message (what should be typed to execute your file);
- Current date and time;
- The name of the user;
- The name of current working directory;
- The name of UNIX machine;
- The name of login shell;
- Contents of the required file;
- Listing of the required directory;
- Total number of parameters of the script;
- Calendar for October of the current year;
- Disk usage;
- Current number of users in the system;
- Current time.

Important: 1) make sure that in the beginning of your script you include information about a shell that will execute your script and the ‘usage’ line; 2) check the number of parameters and their types in the beginning of the script; if requirements are not met exit with a non-zero status; 3) each portion of the output must be preceded with some clarifying information; 4) use manual pages to study commands that you will need in your script and that were not discussed in the class (possibly, **du**, **cut**, **date** with specific options).

B. [15 points] Write a Bash shell script **divisible.sh** that will do the following: 1) it prompts a user to enter an integer **n** from 30 to 60; 2) for all integers from 1 to **n**: if the integer is divisible by 5, the message “divisible by 5” is displayed; if the integer is divisible by 5 and by 3, the message “divisible by 15” is displayed.

C. [20 points] Write a Bash shell script **results.sh** that will determine if participants in some competition made it to the finals. For each participant, enter the name and scores from 3 judges ranging from 1 to 10. The script calculates the average score. For each participant the following information should be displayed: the name, individual scores from judges, an average score and the final result: either the message “Good luck tomorrow” if the average score is greater than 7.5, or “Better luck next time” otherwise. Please, have at least 3 participants tested. Example of the output for one participant:

```
Mary Jones 8.2 7.8 8.6    average: 8.2    Good luck  
tomorrow
```