# Parallel and Distributed Computing

**Section CS 7-1**

# Fall 2021

Assignment # 1

**Date: 20/10/2021**

**Submission Deadline: 28th October, 2021**

**Purpose and Objective:**

Purpose of this assignment is to be familiar with the Linux operating system environment including its Terminal, Terminal Commands and Bash Scripting.

# Create BASH Script

Follow the instructions given here to make sure that your work is correctly graded.

1. In the Linux environment, open the Terminal window.
2. Change to the directory  **home/<username>**. That is your user directory.
3. Create a new folder named as your SAP-ID\_Assignment-1 i.e., **12345\_Assignment-1**
4. A file named **data.txt** is provided in your course page on Moellim, Copy this file to the assignment folder you have just created.
5. Create a new file **bash\_assignment.sh**

# Steps your bash program needs to perform

The various statements below should correspond to lines of code within your bash program **bash\_assignment.sh**. **Please read the instructions carefully to make sure your assignment will be graded correctly.** Hint - make sure your commands work by typing into the command line (Terminal) before writing in the bash script.

1. Create a new directory called **workdir**.
2. Copy the **data.txt** file to the **workdir** directory.
3. Change to that directory.
4. Print out your current location on the filesystem. The output of this code (your current location) should be printed out to another file called **output\_bash.txt**.
5. Create a shell variable called my\_name  and store your full name in it. Print this variable and append the output to the file **output\_bash.txt**.
6. Use the Linux grep command on the file **data.txt** file to append any instances containing value **80** to the file **output\_bash.txt**.
7. Recall the Linux command that lists the contents of your directory. Create a shell variable called second\_var to be equal to the output of this command.
8. Write a loop that then appends the value to the **output\_bash.txt** file.
9. Create two variables *third\_var* and *fourth\_var*, assign some integer values of your choice to these variables.
10. Create a variable *fifth\_var* and store the sum of *third\_var* and *frouth\_var* in it.
11. Append the value of *fifth\_var* to **output\_bash.txt.**
12. Copy the **output\_bash.txt** file to the previous directory.

Run your script bash\_assignment.sh.

# Submission

Archive your assignment folder in ZIP format and submit it on Moellim in “Assignment # 1 – Submission Link”.

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