## The Bash Shell

Open a terminal window and perform appropriate commands according to the given instructions. Make sure you understand what each one does. If you have any doubt about a command, get help from relevant man pages.

1. Create a directory, named lab7, in your working directory and then copy all files and subdirectories from the instructor's lab7 directory into your lab7 directory as shown below.

```
cp -r /home/tao/Labs/lab7/* lab7
```

- 2. Use command "cd" to change the current directory to your lab7 directory and then enter "script lab7a" to record your terminal session
- 3. Perform the following command lines:

```
echo "Start a terminal session"
```

echo "My home directory is "\$HOME

- 4. Use command "Is –I" to find the access permissions for all items under your lab7 directory. Also perform each task given below with one command line. If multiple files are involved, use wildcards to refer to them. Use command "Is -I" to verify what has been done after each task.
  - Add execute permission to files loop1, loop3, and loop5 for the owner
  - Add write permission to all .sh files for all users
  - Remove the group and other users' read permission to all .c files in subdirectory code
  - Move files inboth1.sh and inboth2.sh to subdirectory code
  - Delete the two .dat files from subdirectory code
- 5. Enter command "exit" to terminate the current session. Use commands "cat" or "nl" to view file lab7a.
- 6. Enter "script lab7b" to record your next terminal session and then perform the following command lines. Note that there should be no space around the equal sign.

```
class="CIS241 W19"
echo "My class is" $class
```

7. Perform each of the command lines given below in the order in which they are shown and find out what happened. Make sure that you understand what each command line does.

```
grep -h "if test" f*[12]*
grep -h "if test" f*[12]* | sort
grep -h "if test" f*[12]* | sort | uniq
```

- 8. Enter command "exit" to terminate the current session.
- 9. Perform the following command line to read both lab7a and lab7b and write them to a text file: cat lab7a lab7b > lab7.txt
- 10. View file lab7.txt to verify what has been done. Submit lab7.txt via Blackboard.
- 11. Finally, change the current directory to your home directory and remove the lab7 directory.