

# Assignment - Shell Programming

## A. Learning Outcome

Upon successful completion of this assignment, you will be familiar with:

- Bash Shell Programming
- How shell programs are executed
- The use of shell variables
- Some basic coding principles

## B. Assignment Description

Write a Bash shell script that displays the following menu and prompts for one-character input to invoke a menu option, as shown.

- Display the present working directory
- List names of the files in a given directory
- Display today's date and time
- Display whether a file is a ordinary file or a directory
- Execute a command line
- Exit the program

Your program should look as follows:

```
*****
Please choose from the following options; type the option
number and hit the <Enter> key.
```

```
a or A    To display the current directory
b or B    To list names of the files in a given directory
c or C    To display today's date and time
d or D    To display whether a file is a simple file or directory
e or E    To execute a command line.
q or Q    To exit the program.
```

```
*****
```

```
Enter your choice and hit <Enter>:  a
/home/nghia/Test/Shell
Hit <Enter> to continue.
```

```
Enter your choice and hit <Enter>:  b
Please enter the directory path: /sys
total 4
drwxr-xr-x 12 root root    0 2009-07-18 13:18 .
drwxr-xr-x 21 root root 4096 2009-06-26 16:07 ..
drwxr-xr-x  2 root root    0 2009-07-18 13:18 block
drwxr-xr-x 21 root root    0 2009-07-18 13:18 bus
drwxr-xr-x 46 root root    0 2009-07-18 13:18 class
drwxr-xr-x  4 root root    0 2009-07-18 21:13 dev
drwxr-xr-x 10 root root    0 2009-07-18 13:18 devices
drwxr-xr-x  4 root root    0 2009-07-18 13:18 firmware
drwxr-xr-x  4 root root    0 2009-07-18 13:18 fs
drwxr-xr-x  6 root root    0 2009-07-18 13:18 kernel
drwxr-xr-x 97 root root    0 2009-07-18 13:18 module
drwxr-xr-x  2 root root    0 2009-07-18 13:18 power
Hit <Enter> to continue.
```

```
Enter your choice and hit <Enter>:  b
Please enter the directory path: adirectory
adirectory is not a directory.
Hit <Enter> to continue.
```

```
Enter your choice and hit <Enter>:  c
Sat Jul 18 21:15:17 ICT 2009
Hit <Enter> to continue.
```

```
Enter your choice and hit <Enter>:  d
Please enter file name:  afile
afile does not exist, or it is neither an ordinary file not a
directory.
Hit <Enter> to continue.
```

```
Enter your choice and hit <Enter>:  d
Please enter file name:  case_demo
case_demo is an ordinary file.
Hit <Enter> to continue.
```

```
Enter your choice and hit <Enter>:  d
Please enter file name:  dir1
dir1 is a directory.
Hit <Enter> to continue.
```

```
Enter your choice and hit <Enter>:  e
Please enter a command to be executed: df -h
Filesystem            Size  Used Avail Use% Mounted on
/dev/sda1              7.5G  2.8G  4.4G   39% /
tmpfs                 249M    0  249M    0% /lib/init/rw
varrun                249M  112K  249M    1% /var/run
varlock               249M    0  249M    0% /var/lock
udev                 249M  140K  249M    1% /dev
tmpfs                 249M   76K  249M    1% /dev/shm
lrm                   249M  2.2M  247M    1% /lib/modules/2.6.28-13-
generic/volatile
Hit <Enter> to continue.
```

```
Enter your choice and hit <Enter>:  q
Bye now!
```

### C. Submission Requirements

At the beginning of your program, include comments with the following information formatted neatly, and reflecting accurate information about you.

```
#Assignment:  Shell Programming
#Class ID:    YourClassID
#Student ID:  YourStudentID
#Student Name: YourName
#Source File: YourName_YourStudentID_ShellProgramming.sh
```