Name: Thi Hien Anh Tran

Student ID: 45741271

Assignment 1.1

Exercise 1:

find . –type f –printf '%T@ %TY-%Tm-%Td %TH:%TM:%TS %p\n' | sort –rn | head -3 | cut -f2- -d" "

- fine . –type f –printf '%T@ %TY-%Tm-%Td %TH:%TM:%TS %p\n'
  This looks for files and prints their medication time (second) followed by a space and their name followed by a nul character
- sort –rn
  This sorts the null-seperated data
- head -3
  to sort in ascending order (instead of using tail –n helps to improve efficiently slightly)
- -f2-
  Returns fields 2 to the end of the line

Exercise 2:

Using the "$@" variable within double quotes, which expands to a list of all arguments

The result followed by echo command

The find command is invoked with the directory name provided at the command line ($1)

The -print prints the full file-name, location on standard output

Error messages are redirected into the nirvana (2>/dev/null)

The standard output is not printed into the screen but redirected (|) to Sed

Exercise 3:

a. I download Program 24 (time-signal) from local machine, using curl URL and save as time-signal.sh (using output –o)
   Using chmod u+x time-signal.sh to make the file executable
   Then run using ./time-signal.sh
   Then I create script on nano (editor)
   I change directory to desktop then using scp command `scp -i busa8090_s1_2020_45741271.pem time-signal.sh` ubuntu@ec2-3-106-58-56.ap-southeast-2.compute.amazonaws.com`:`
   Then I use ssh command to switch to remote machine `ssh -i busa8090_s1_2020_45741271.pem` ubuntu@ec2-3-106-58-56.ap-southeast-2.compute.amazonaws.com
   `To save the program 24 to ~/bin, I use sudo cp -r time-signal.sh /usr/bin`
   `To check again, I use ls usr/bin and I can see the file time-signal.sh has already here.`

b. ```
I open another shell. The step are the same as part a.
Then I open nano (editor) to make change in count = count + 1
It is acceptable to use this change because count + 1 is the integer expression
expected
Currently, I am in the local machine to edit the script, now I switch to the
remote machine to run the new file time-signal.sh_2
```

c.  Now I come back to local machine to edit the script: count=$(expr$count+1)

   This change is acceptable. Here, in order to perform an arithmetical calculation we use the command expr (expression). Hat tells the shell to calculate the rest of the line instead of just adding the character string "+1" to the variable count

d.  Again, I come back to the local machine to edit the script: count=$((count+1))

   This change is acceptable. Since we increase the content by 1, and then matches the end of the line