**Quiz 7**

Arun Yantrapragada\_Quiz7

All Shell scripts should display usage function, they should also validate input arguments to be correct, use fuctions and recursion as much as possible.

1. Write a shell script to find the number of lines in a list of files using sed.

You should write a for loop to go through all files in a directory and then count the number of lines in each file, display it as:

./script <Full path to directory>

File1 has 45 lines

File2 has 20 lines

2 Files in total, 65 lines in total

2. Write a shell script to substitute one pattern for another in a text file.

./script.sh oldpattern newpattern

answer:

#!/bin/bash

# subst.sh: a script that substitutes one pattern for another in a file,

# "sh subst.sh arun yantrapragada letter.txt".

# here yantrapragada replaces arun.

ARGS=3

E\_BADARGS=85

if [ $# -ne "$ARGS" ]

then

echo "Usage: `basename $0` old-pattern new-pattern filename"

exit $E\_BADARGS

fi

old\_pattern=$1

new\_pattern=$2

if [ -f "$3" ]

then

file\_name=$3

else

echo "File \"$3\" does not exist."

exit $E\_BADARGS

fi

3. Write a shell script to print complete pathname associated with pid. User has to pass the PID from command line.

./script.sh PID

answer:

#!/bin/bash

# pid-identifier.sh: Gives complete path name to process associated with pid.

ARGNO=1

E\_WRONGARGS=65

E\_BADPID=66

E\_NOSUCHPROCESS=67

E\_NOPERMISSION=68

PROCFILE=exe

if [ $# -ne $ARGNO ]

then

echo "Usage: `basename $0` PID-number" >&2 # Error message >stderr.

exit $E\_WRONGARGS

fi

pidno=$( ps ax | grep $1 | awk '{ print $1 }' | grep $1 )

if [ -z "$pidno" ]

then

echo "No such process running."

exit $E\_NOSUCHPROCESS

fi

4. Write a shell script to print all users on system using awk.

Hint: Learn what is /etc/passwd file in Linux

answer:

#!./bin/bash

tr -c '[:alnum:]' '[\n\*]' < test.txt | sort | uniq -c | sort -nr | head -10

6. Write a script to take backup of files changed in last 24 hours and archive them.

Hint: Read the Find command tutorial in Linux folder. We typically take backups of a folder by “tar”-ring the entire folders.

7. Write a shell script to determine if a particular service is active or not. For eg: if SSH service is active it should display yes and vice versa. Use netstat , ps commands etc

answer:

#!./bin/bash

netstat -pt

8. Write a shell script to remove spaces from filenames and replace it with underscore

Hint: you can use mv command to re-name files

answer:

#!./bin/bash

for file in \*;

do mv "$file" `echo $file | tr ' ' '\_'` ;

done

9. Write a shell script which prints the df output in more formatted way as below

Filesystem Size Used Avail Capacity Mounted

/dev/sda1 446.71G 18.11G 405.88G 5% /

udev 10M 0 10M 0% /dev

tmpfs 1.14G 9.16M 1.13G 1% /run

10. Write a shell script to summarize available disk space and present in a logical and readable fashion

answer:

#!/bin/sh

# diskspace

tempfile="/tmp/available.$$" trap "rm -f $tempfile"

EXIT

11. Write a shell function to rename .txt files to .text

answer: #!./bin/bash

# Rename all \*.txt to \*.text

for f in \*.txt; do

mv -- "$f" "${f%.txt}.text"

done