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Topic – Shell practice questions from 13 to 20

Date – 20-04-2023

Question 13 – Script to print the following:
- Currently logged users
- Your shell directory
- Home directory
- OS name & version
- Current working directory
- Number of users logged in
- Show all available shells in your system
- Hard disk information
- CPU information.
- Memory information.
- File system information.
- Currently running process

Code –

Output –

Question -14

Script to rename a file/directory replaced by lower/upper case letters.

Code –

Output –

Question – 15

```
Script to rename current working directory with given name.
```

Code –


```bash
#!/bin/bash

read -p "Enter new directory name: " new_name

current_dir=$(basename "$PWD")

mv "$current_dir" "$new_name"
```

Output –

Question 16

Script to rename all .jpg files by replacing prefix which is given by user

Code –


```bash
#!/bin/bash

echo "Enter the new prefix:"
read new_prefix

for file in *.jpg;
do
        mv "$file" "${new_prefix}_${file#*_}"
done

echo "All .jpg files have been renamed with the new prefix."
```

Output –

Question 17

Script to print contents of file from given line number to next given number of lines.

Code –


```bash
#!/bin/bash

if [[ $# -ne 3 ]]; then
        echo "Usage: $0 <filename> <start line number> <number of lines to print>"
        exit 1
fi

file="$1"
start_line="$2"
num_lines="$3"

tail -n +$start_line "$file" | head -n $num_lines
```

Output –

Question 18

Script to display the longest and shortest user-names on the system.

Code –


```bash
#!/bin/bash

usernames=( $(cut -d: -f1 /etc/passwd) )

shortest=${usernames[0]}
longest=${usernames[0]}

for user in "${usernames[@]}"
do

        if [ ${#user} -lt ${#shortest} ]
        then
                shortest=$user
        fi

        if [ ${#user} -gt ${#longest} ]
        then
                longest=$user
        fi
done

echo "Shortest user name: $shortest"
echo "Longest user name: $longest"
```

Output –

Question – 19

Script to delete all the .swp files found in your system or directory.

Code –

Output –

```
anup@DESKTOP-UDNPO65: ~/Shell/practice_Questions
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ vi p19.sh
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ chmod u+x p19.sh
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ ./p19.sh
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ ls
Test11   a.txt  p10.sh  p12.sh  p2.sh    p21.sh           p22.sh  p24.sh  p26.sh  p3.sh   p31.sh  p33.sh  p4.sh  p6.sh  p8.sh
Test22   p1.sh  p11.sh  p19.sh  p20.sh   p21_say_hello.sh  p23.sh  p25.sh  p27.sh  p30.sh  p32.sh  p34.sh  p5.sh  p7.sh  p9.sh
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ cd Test11
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions/Test11$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions/Test11$ touch s1.swp
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions/Test11$ touch s2.swp
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions/Test11$ cd ..
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ touch s3.swp
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ ./p19.sh
./s3.swp
./Test11/s1.swp
./Test11/s2.swp
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ vi p18.sh
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ chmod u+x p18.sh
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ ./p18.sh
./p18.sh: line 29: syntax error: unexpected end of file
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ vi p18.sh
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ ./p18.sh
Shortest user name: lp
Longest user name: systemd-timesync
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
```

Question – 20

script for generating random 8-character passwords including alpha
numeric characters.

Code-

```bash
#!/bin/bash

characters='abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789'

for var in 1 2 3 4 5 6 7 8
do
        password=$(cat /dev/urandom | tr -dc $characters | fold -w 8 | head -n 1)
        echo $password
done
```

Output –


```
anup@DESKTOP-UDNPO65: ~/Shell/practice_Questions

Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 4.4.0-19041-Microsoft x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage


This message is shown once a day. To disable it please create the
/home/anup/.hushlogin file.
anup@DESKTOP-UDNPO65:~$ cd Shell
anup@DESKTOP-UDNPO65:~/Shell$ ls
Hello_World.sh  Test2  Variables.sh    assignment-2.sh  assignment-4.sh  for_loop.sh   practice_Questions  user_input.sh
Test            Test3  assignment-1.sh  assignment-3.sh  assignment-5.sh  if_else.sh   switch.sh           variables.sh
anup@DESKTOP-UDNPO65:~/Shell$
anup@DESKTOP-UDNPO65:~/Shell$ cd practice_Questions
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ vi p21_say_hello.sh
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ chmod u+x p21_say_hello.sh
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ ./p21_say_hello.sh
Good afternoon! Today is Thursday, April 20, 2023.
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ vi p20.sh
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ chmod u+x p20.sh
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ ./p20.sh
1AC05s4I
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ vi p20.sh
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$ ./p20.sh
KOvtOnpV
KfgGhWFk
yjf6jobf
zm4gBnbJ
6387Tj9Q
3qCOgWPr
mDTuk7Uh
o4OcBXeI
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
anup@DESKTOP-UDNPO65:~/Shell/practice_Questions$
```