#!/bin/bash

#Check if script was run as root. Exit if false.

if [ $UID -ne 0 ]

then

echo "Please do not run this script as root."

exit

fi

# Define Variables

output=$HOME/research/sys\_info.txt

ip=$(ip addr | grep inet | tail -2 | head -1)

execs=$(sudo find /home -type f -perm 777 2> /dev/null)

cpu=$(lscpu | grep CPU)

disk=$(df -H | head -2)

# Define Lists to use later

commands=(

'date'

'uname -a'

'hostname -s'

)

files=(

'/etc/passwd'

'/etc/shadow'

)

#Check for research directory. Create it if needed.

if [ ! -d $HOME/research ]

then

mkdir $HOME/research

fi

# Check for output file. Clear it if needed.

if [ -f $output ]

then

> $output

fi

##################################################

#Start Script

echo "A Quick System Audit Script" >> $output

echo "" >> $output

for x in {0..2};

do

results=$(${commands[$x]})

echo "Results of \"${commands[$x]}\" command:"

echo $results

echo ""

done

# Display Machine type

echo "Machine Type Info:" >> $output

echo -e "$MACHTYPE \n" >> $output

# Display IP Address info

echo -e "IP Info:" >> $output

echo -e "$ip \n" >> $output

# Display Memory usage

echo -e "\nMemory Info:" >> $output

free >> $output

#Display CPU usage

echo -e "\nCPU Info:" >> $output

lscpu | grep CPU >> $output

# Display Disk usage

echo -e "\nDisk Usage:" >> $output

df -H | head -2 >> $output

#Display login information for the current user

echo -e "\nCurrent user login information: \n $(who -a) \n" >> $output

# Display DNS Info

echo "DNS Servers: " >> $output

cat /etc/resolv.conf >> $output

# List exec files

echo -e "\nexec Files:" >> $output

for exec in $execs;

do

echo $exec >> $output

done

# List top 10 processes

echo -e "\nTop 10 Processes" >> $output

ps aux --sort -%mem | awk {'print $1, $2, $3, $4, $11'} | head >> $output

# Check the permissions on files

echo -e "\nThe permissions for sensitive /etc files: \n" >> $output

for file in ${files[@]};

do

ls -l $file >> $output

done