```bash
#!/bin/bash

# Variables
output=$HOME/research/sys_info.txt
ip=$(ip addr | grep inet | tail -2 | head -1)
execs=$(find /home -type f -perm 777 2> /dev/null)
files=('/etc/passwd' '/etc/shadow')
commands=('date' 'uname -a' 'hostname -s')

# Script
if [ ! -d $HOME/research ]
then

        mkdir $HOME/research 2> /dev/null
fi

if [ -f $output ]
then
        rm $output
fi
# Displaying Header Information
echo "A Quick System Audit Script" > ~/research/sys_info.txt
date >> ~/research/sys_info.txt
echo "" >> ~/research/sys_info.txt

# Display Machine Info
echo "Machine Type Info:" >> ~/research/sys_info
echo $MACHTYPE >> ~/research/sys_info.txt
echo -e "Uname info: $(uname -a) \n" >> ~/research/sys_info.txt
echo -e "IP Info $(hostname -s) \n" >> ~/research/sys_info.txt
echo "DNS Servers: " >> ~/research/sys_info.txt
cat /etc/resolv.conf >> ~/research/sys_info.txt

# Display Memory Info
echo -e "n\Memory Info:" >> ~/research/sys_info.txt
free >> ~/research/sys_info.txt

# Display Memory Info
echo -e "\nCPU Info:" >> ~/research/sys_info.txt
lscpu | grep CPU >> ~/research/sys_info.txt

# Display Disk Info
echo -e "\nDisk Usage:" >> ~/research/sys_info.txt
df -H | head -2 >> ~/research/sys_info.txt
```

```
# Display Who is Info
echo -e "\nWho is logged in: \n $(who -a) \n" >> ~/research/sys_info.txt
echo -e "\nexec Files:" >> ~/research/sys_info.txt
sudo find /home -type f -perm 777 >> ~/research/sys_info.txt
echo -e "\nTop 10 Processes" >> ~/research/sys_info.txt
ps aux --sort -%mem | awk {'print $1, $2, $3, $4, $11'}


echo -e "\nThe permissions for sensitive /etc/files: \n" >> $output
# Put the paths of the shadow and passwd files in a list and create a loop that prints the
permissions for each file
for file in ${files[@]};
do
        ls -l $file >> $output
done


# Display Check for Sudo Permissions
For user in $(ls /home);
do
        $(sudo -lU $user >> $output
done


# Display List of Commands
for x in {0..2};
do
        results=$(${commands[$x]})
        echo "Results of \"${commands[$x]}\" command:" >> $output
        echo $results >> $output
        echo "" >> $output
done
```