In Frist Machine :

```
root@localhost:~/scripttask$ ./task.sh
Running ps command...
Finished running ps command.
Running memory command...
Finished running memory command.
Running disk usage command...
Finished running disk usage command.
Running dmesg command...
Finished running dmesg command.
Compressing output files...
ps_output.txt
mem_output.txt
df_output.txt
dmesg_output.txt
Finished compressing output files.
Enter the IP address of the destination machine: 172.19.2.206
Enter the username for the destination machine: root
Enter the destination path for the files: /root/scripttast/
Sending files to remote machine...
Password:
output.tar.gz                                                                                 100%   16KB   7.7MB/s   00:00
Finished sending files to remote machine.
```

The Script:

```
#!/bin/bash

# Set the output file names
PS_FILE="ps_output.txt"
MEM_FILE="mem_output.txt"
DF_FILE="df_output.txt"
DMESG_FILE="dmesg_output.txt"

# Run the ps command and output the results to a file
echo "Running ps command..."
ps aux > $PS_FILE
echo "Finished running ps command."

# Run the free command and output the results to a file
echo "Running memory command..."
free -h > $MEM_FILE
echo "Finished running memory command."

# Run the df command and output the results to a file
echo "Running disk usage command..."
df -h | awk '{ print $1, $5 }' > $DF_FILE
echo "Finished running disk usage command."

# Run the dmesg command and output the results to a file
echo "Running dmesg command..."
 dmesg > $DMESG_FILE
echo "Finished running dmesg command."

# Check if all commands were successful and files exist
if [ $? -eq 0 ] && [ -f $PS_FILE ] && [ -f $MEM_FILE ] && [ -f $DF_FILE ] && [ -f $DMESG_FILE ]
then
  # Compress the output files
  echo "Compressing output files..."
  tar -czvf output.tar.gz $PS_FILE $MEM_FILE $DF_FILE $DMESG_FILE
  echo "Finished compressing output files."
  # Set the destination IP, username, and path
  read -p "Enter the IP address of the destination machine: " IP_ADDRESS
  read -p "Enter the username for the destination machine: " USERNAME
  read -p "Enter the destination path for the files: " DEST_PATH
  # Send the compressed file over the network using scp
  echo "Sending files to remote machine..."
  scp -P 2887 -r  output.tar.gz $USERNAME@$IP_ADDRESS:$DEST_PATH
  echo "Finished sending files to remote machine."

else
  echo "One or more commands failed, or output files do not exist."
fi
```

In The Second Machine :

```
[root@localhost scripttask]# ll
total 0
[root@localhost scripttask]# ll
total 20
-rw-r--r-- 1 root root 16409 Apr 19 02:50 output.tar.gz
[root@localhost scripttask]# tar -xzf output.tar.gz
tar: ps_output.txt: time stamp 2023-04-19 02:54:26 is 125.868858531 s in the future
tar: mem_output.txt: time stamp 2023-04-19 02:54:26 is 125.868263127 s in the future
tar: df_output.txt: time stamp 2023-04-19 02:54:26 is 125.867798609 s in the future
tar: dmesg_output.txt: time stamp 2023-04-19 02:54:26 is 125.86720901 s in the future
[root@localhost scripttask]# ll
total 92
-rw-r--r-- 1 root root   141 Apr 19  2023 df_output.txt
-rw-r--r-- 1 root root 38211 Apr 19  2023 dmesg_output.txt
-rw-r--r-- 1 root root   284 Apr 19  2023 mem_output.txt
-rw-r--r-- 1 root root 16409 Apr 19 02:50 output.tar.gz
-rw-r--r-- 1 root root 21678 Apr 19  2023 ps_output.txt
[root@localhost scripttask]#
```

Output :

memory usage:

```
[root@localhost scripttask]# cat mem_output.txt
               total        used        free      shared  buff/cache   available
Mem:            15Gi       8.9Gi       5.8Gi        17Mi       727Mi       6.3Gi
Swap:          6.0Gi          0B       6.0Gi
[root@localhost scripttask]#
```

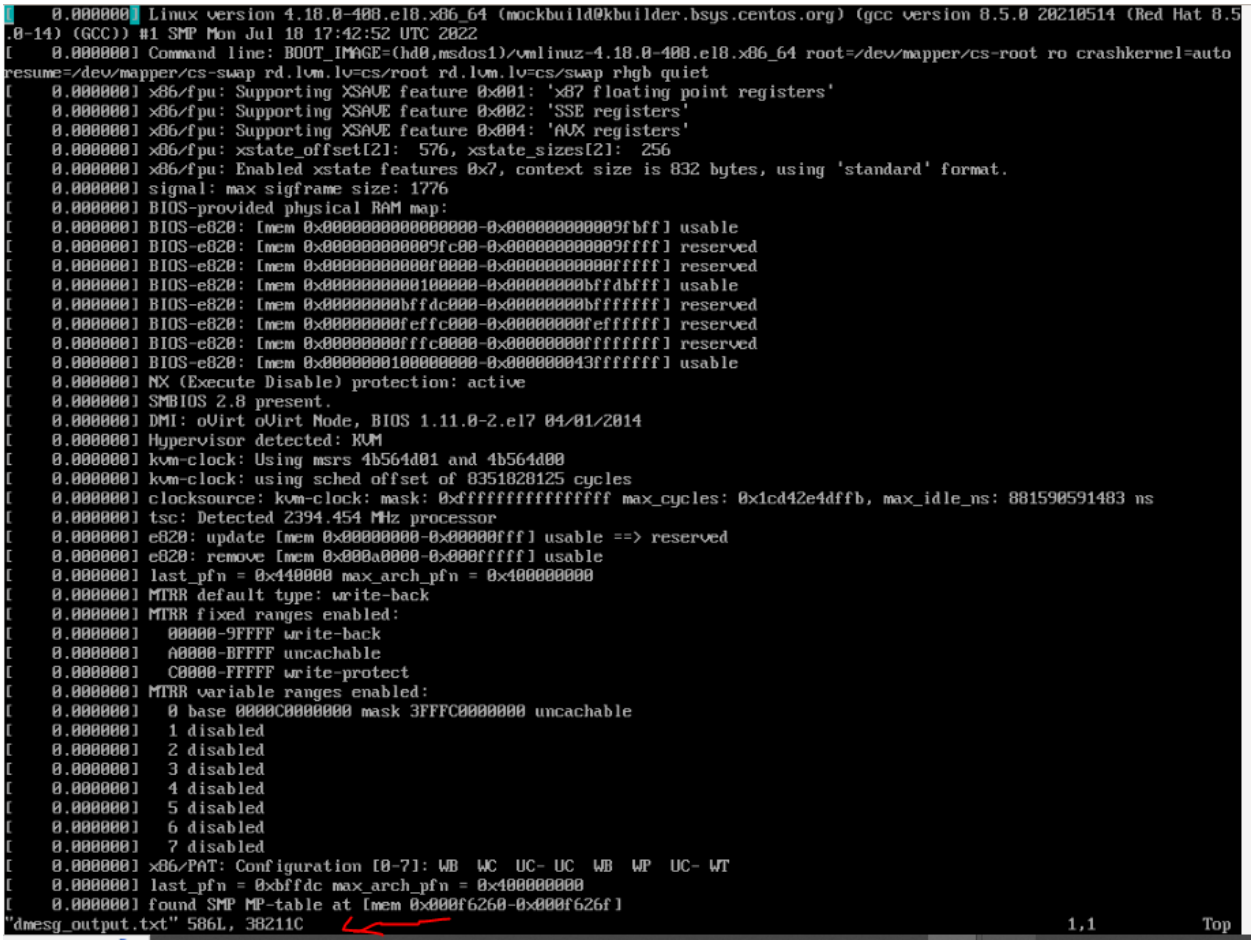
disk usage :

```
[root@localhost scripttask]# cat df_output.txt
Filesystem Use%
devtmpfs 0%
tmpfs 0%
tmpfs 1%
tmpfs 0%
/dev/mapper/cs-root 15%
/dev/loop0 100%
/dev/sda1 28%
/dev/mapper/cs-home 1%
tmpfs 0%
[root@localhost scripttask]#
```

Ps info:

```
USER         PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.0  0.0 230136 10776 ?        Ss   01:20   0:02 /usr/lib/systemd/systemd --switched-root --system --deseriali
ze 10
root           2  0.0  0.0      0     0 ?        S    01:20   0:00 [kthreadd]
root           3  0.0  0.0      0     0 ?        I<   01:20   0:00 [rcu_gp]
root           4  0.0  0.0      0     0 ?        I<   01:20   0:00 [rcu_par_gp]
root           6  0.0  0.0      0     0 ?        I<   01:20   0:00 [kworker/0:0H-events_highpri]
root           9  0.0  0.0      0     0 ?        I<   01:20   0:00 [mm_percpu_wq]
root          10  0.0  0.0      0     0 ?        S    01:20   0:00 [rcu_tasks_rude_]
root          11  0.0  0.0      0     0 ?        S    01:20   0:00 [rcu_tasks_trace]
root          12  0.0  0.0      0     0 ?        S    01:20   0:00 [ksoftirqd/0]
root          13  0.0  0.0      0     0 ?        I    01:20   0:00 [rcu_sched]
root          14  0.0  0.0      0     0 ?        S    01:20   0:00 [migration/0]
root          15  0.0  0.0      0     0 ?        S    01:20   0:00 [watchdog/0]
root          16  0.0  0.0      0     0 ?        S    01:20   0:00 [cpuhp/0]
root          17  0.0  0.0      0     0 ?        S    01:20   0:00 [cpuhp/1]
root          18  0.0  0.0      0     0 ?        S    01:20   0:00 [watchdog/1]
root          19  0.0  0.0      0     0 ?        S    01:20   0:00 [migration/1]
root          20  0.0  0.0      0     0 ?        S    01:20   0:00 [ksoftirqd/1]
root          22  0.0  0.0      0     0 ?        I<   01:20   0:00 [kworker/1:0H-events_highpri]
root          23  0.0  0.0      0     0 ?        S    01:20   0:00 [cpuhp/2]
root          24  0.0  0.0      0     0 ?        S    01:20   0:00 [watchdog/2]
root          25  0.0  0.0      0     0 ?        S    01:20   0:00 [migration/2]
root          26  0.0  0.0      0     0 ?        S    01:20   0:00 [ksoftirqd/2]
root          28  0.0  0.0      0     0 ?        I<   01:20   0:00 [kworker/2:0H-events_highpri]
root          29  0.0  0.0      0     0 ?        S    01:20   0:00 [cpuhp/3]
root          30  0.0  0.0      0     0 ?        S    01:20   0:00 [watchdog/3]
root          31  0.0  0.0      0     0 ?        S    01:20   0:00 [migration/3]
root          32  0.0  0.0      0     0 ?        S    01:20   0:00 [ksoftirqd/3]
root          34  0.0  0.0      0     0 ?        I<   01:20   0:00 [kworker/3:0H-events_highpri]
root          35  0.0  0.0      0     0 ?        S    01:20   0:00 [cpuhp/4]
root          36  0.0  0.0      0     0 ?        S    01:20   0:00 [watchdog/4]
root          37  0.0  0.0      0     0 ?        S    01:20   0:00 [migration/4]
root          38  0.0  0.0      0     0 ?        S    01:20   0:00 [ksoftirqd/4]
root          40  0.0  0.0      0     0 ?        I<   01:20   0:00 [kworker/4:0H-events_highpri]
root          41  0.0  0.0      0     0 ?        S    01:20   0:00 [cpuhp/5]
root          42  0.0  0.0      0     0 ?        S    01:20   0:00 [watchdog/5]
root          43  0.0  0.0      0     0 ?        S    01:20   0:00 [migration/5]
root          44  0.0  0.0      0     0 ?        S    01:20   0:00 [ksoftirqd/5]
root          46  0.0  0.0      0     0 ?        I<   01:20   0:00 [kworker/5:0H-events_highpri]
root          47  0.0  0.0      0     0 ?        S    01:20   0:00 [cpuhp/6]
root          48  0.0  0.0      0     0 ?        S    01:20   0:00 [watchdog/6]
root          49  0.0  0.0      0     0 ?        S    01:20   0:00 [migration/6]
root          50  0.0  0.0      0     0 ?        S    01:20   0:00 [ksoftirqd/6]
root          52  0.0  0.0      0     0 ?        I<   01:20   0:00 [kworker/6:0H-events_highpri]
root          53  0.0  0.0      0     0 ?        S    01:20   0:00 [cpuhp/7]
root          54  0.0  0.0      0     0 ?        S    01:20   0:00 [watchdog/7]
"ps_output.txt" 202L, 21678C                                          1,1           Top
```

Demsg:


[0.000000] Linux version 4.18.0-408.el8.x86_64 (mockbuild@kbuilder.bsys.centos.org) (gcc version 8.5.0 20210514 (Red Hat 8.5.0-14) (GCC)) #1 SMP Mon Jul 18 17:42:52 UTC 2022
[0.000000] Command line: BOOT_IMAGE=(hd0,msdos1)/vmlinuz-4.18.0-408.el8.x86_64 root=/dev/mapper/cs-root ro crashkernel=auto resume=/dev/mapper/cs-swap rd.lvm.lv=cs/root rd.lvm.lv=cs/swap rhgb quiet
[0.000000] x86/fpu: Supporting XSAVE feature 0x001: 'x87 floating point registers'
[0.000000] x86/fpu: Supporting XSAVE feature 0x002: 'SSE registers'
[0.000000] x86/fpu: Supporting XSAVE feature 0x004: 'AVX registers'
[0.000000] x86/fpu: xstate_offset[2]: 576, xstate_sizes[2]: 256
[0.000000] x86/fpu: Enabled xstate features 0x7, context size is 832 bytes, using 'standard' format.
[0.000000] signal: max sigframe size: 1776
[0.000000] BIOS-provided physical RAM map:
[0.000000] BIOS-e820: [mem 0x0000000000000000-0x000000000009fbff] usable
[0.000000] BIOS-e820: [mem 0x000000000009fc00-0x000000000009ffff] reserved
[0.000000] BIOS-e820: [mem 0x00000000000f0000-0x00000000000fffff] reserved
[0.000000] BIOS-e820: [mem 0x0000000000100000-0x00000000bffdbfff] usable
[0.000000] BIOS-e820: [mem 0x00000000bffdc000-0x00000000bfffffff] reserved
[0.000000] BIOS-e820: [mem 0x00000000feffc000-0x00000000feffffff] reserved
[0.000000] BIOS-e820: [mem 0x00000000fffc0000-0x00000000ffffffff] reserved
[0.000000] BIOS-e820: [mem 0x0000000100000000-0x000000043fffffff] usable
[0.000000] NX (Execute Disable) protection: active
[0.000000] SMBIOS 2.8 present.
[0.000000] DMI: oVirt oVirt Node, BIOS 1.11.0-2.el7 04/01/2014
[0.000000] Hypervisor detected: KVM
[0.000000] kvm-clock: Using msrs 4b564d01 and 4b564d00
[0.000000] kvm-clock: using sched offset of 8351828125 cycles
[0.000000] clocksource: kvm-clock: mask: 0xffffffffffffffff max_cycles: 0x1cd42e4dffb, max_idle_ns: 881590591483 ns
[0.000000] tsc: Detected 2394.454 MHz processor
[0.000000] e820: update [mem 0x00000000-0x00000fff] usable ==> reserved
[0.000000] e820: remove [mem 0x000a0000-0x000fffff] usable
[0.000000] last_pfn = 0x440000 max_arch_pfn = 0x400000000
[0.000000] MTRR default type: write-back
[0.000000] MTRR fixed ranges enabled:
[0.000000] 00000-9FFFF write-back
[0.000000] A0000-BFFFF uncachable
[0.000000] C0000-FFFFF write-protect
[0.000000] MTRR variable ranges enabled:
[0.000000] 0 base 0000C0000000 mask 3FFFC0000000 uncachable
[0.000000] 1 disabled
[0.000000] 2 disabled
[0.000000] 3 disabled
[0.000000] 4 disabled
[0.000000] 5 disabled
[0.000000] 6 disabled
[0.000000] 7 disabled
[0.000000] x86/PAT: Configuration [0-7]: WB WC UC- UC WB WP UC- WT
[0.000000] last_pfn = 0xbffdc max_arch_pfn = 0x400000000
[0.000000] found SMP MP-table at [mem 0x000f6260-0x000f626f]
"dmesg_output.txt" 586L, 38211C
1,1
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