LOVELY PROFESSIONAL UNIVERSITY

Academic Task-3 (Compulsory)
INT301: Open-Source Technologies

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Q 43. 43. Using desired Open-Source Software provide details of the motherboard, network, storage devices, and display. Also, create an HTML report of everything and create favorites to have instant access to any hardware component from the menu bar.

Open source tools: lshw (for Linux)

lshw (for Linux):
To use lshw in Ubuntu, you can open a terminal and type:

sudo lshw -html > output.html

This will run the lshw command with administrative privileges (required to access certain system information) and output the results in HTML format to a file named output.html in the current directory. I can then open the file in a web browser to view the results.

```
sams@DESKTOP-6NOT9QA:~$        lshw - list hardware
Hardware Lister (lshw) -
usage: lshw [-format] [-options ...]
       lshw -version

       -version          print program version ()

format can be
       -html             output hardware tree as HTML
       -xml              output hardware tree as XML
       -json             output hardware tree as a JSON object
       -short            output hardware paths
       -businfo          output bus information

options can be
       -class CLASS      only show a certain class of hardware
       -C CLASS          same as '-class CLASS'
       -c CLASS          same as '-class CLASS'
       -disable TEST     disable a test (like pci, isapnp, cpuid, etc. )
       -enable TEST      enable a test (like pci, isapnp, cpuid, etc. )
       -quiet            don't display status
       -sanitize         sanitize output (remove sensitive information like serial numbers, etc.)
       -numeric          output numeric IDs (for PCI, USB, etc.)
       -notime           exclude volatile attributes (timestamps) from output
sams@DESKTOP-6NOT9QA:~$ lshw -o -html
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sams@DESKTOP-6NOT9QA:~$ lshw -html > demo.html
WARNING: you should run this program as super-user.
WARNING: output may be incomplete or inaccurate, you should run this program as super-user.
sams@DESKTOP-6NOT9QA:~$ ls
GPT-Terminal-Support  calculator.sh       cha.sh  demo.html  grater.sh  test
ashad                 calculator.sh.save  demo    for.sh     script     test09
sams@DESKTOP-6NOT9QA:~$ code .
Updating VS Code Server to version 7f329fe6c66b0f86ae1574c2911b681ad5a45d63
Removing previous installation...
Installing VS Code Server for x64 (7f329fe6c66b0f86ae1574c2911b681ad5a45d63)
Downloading: 100%
Unpacking: 100%
Unpacked 2407 files and folders to /home/sams/.vscode-server/bin/7f329fe6c66b0f86ae1574c2911b681ad5a45d63.
sams@DESKTOP-6NOT9QA:~$
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```
Select C:\Windows\System32\cmd.exe

Microsoft Windows [Version 10.0.19045.2728]
(c) Microsoft Corporation. All rights reserved.

C:\Users\samsn\OneDrive\Desktop\Github\INT301->git push
Everything up-to-date

C:\Users\samsn\OneDrive\Desktop\Github\INT301->git add .

C:\Users\samsn\OneDrive\Desktop\Github\INT301->git commit -m "html report"
[main 1c0d415] html report
 1 file changed, 147 insertions(+)
 create mode 100644 report.html

C:\Users\samsn\OneDrive\Desktop\Github\INT301->git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 2.61 KiB | 2.61 MiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Naakib/INT301-.git
   61f402c..1c0d415  main -> main
```
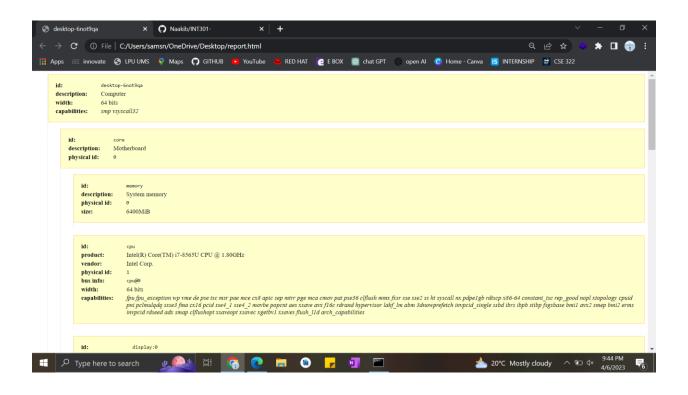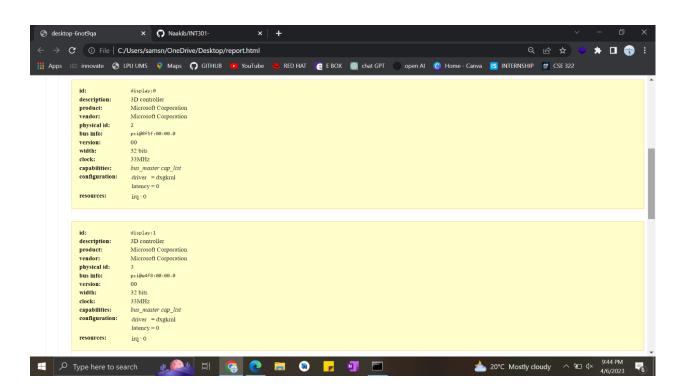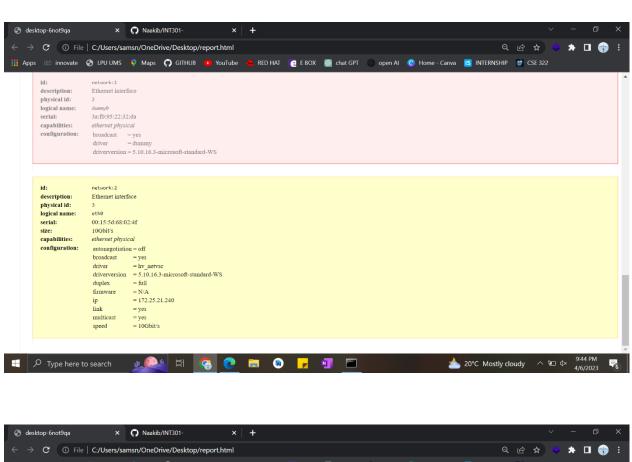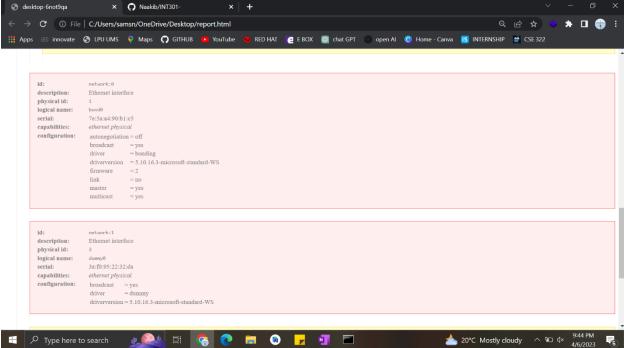
Display HTML file:

id:	desktop-6not9qa
description:	Computer
width:	64 bits
capabilities:	smp vsyscall32

id:	core
description:	Motherboard
physical id:	0

id:	memory
description:	System memory
physical id:	0
size:	6400MiB

id:	cpu
product:	Intel(R) Core(TM) i7-8565U CPU @ 1.80GHz
vendor:	Intel Corp.
physical id:	1
bus info:	cpu@0
width:	64 bits
capabilities:	fpu fpu_exception wp vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush mmx fxsr sse sse2 ss ht syscall nx pdpe1gb rdtscp x86-64 constant_tsc rep_good nopl xtopology cpuid pni pclmulqdq ssse3 fma cx16 pcid sse4_1 sse4_2 movbe popcnt aes xsave avx f16c rdrand hypervisor lahf_lm abm 3dnowprefetch invpcid_single ssbd ibrs ibpb stibp fsgsbase bmi1 avx2 smep bmi2 erms invpcid rdseed adx smap clflushopt xsaveopt xsavec xgetbv1 xsaves flush_l1d arch_capabilities

id:	display:0

---

id:	display:0
description:	3D controller
product:	Microsoft Corporation
vendor:	Microsoft Corporation
physical id:	2
bus info:	pci@8f5f:00:00.0
version:	00
width:	32 bits
clock:	33MHz
capabilities:	bus_master cap_list
configuration:	driver = dxgkrnl
	latency = 0
resources:	irq : 0

id:	display:1
description:	3D controller
product:	Microsoft Corporation
vendor:	Microsoft Corporation
physical id:	3
bus info:	pci@e4f8:00:00.0
version:	00
width:	32 bits
clock:	33MHz
capabilities:	bus_master cap_list
configuration:	driver = dxgkrnl
	latency = 0
resources:	irq : 0

Git hub link: https://github.com/Naakib/INT301-.git