

Lab 00 – Searching and Reporting

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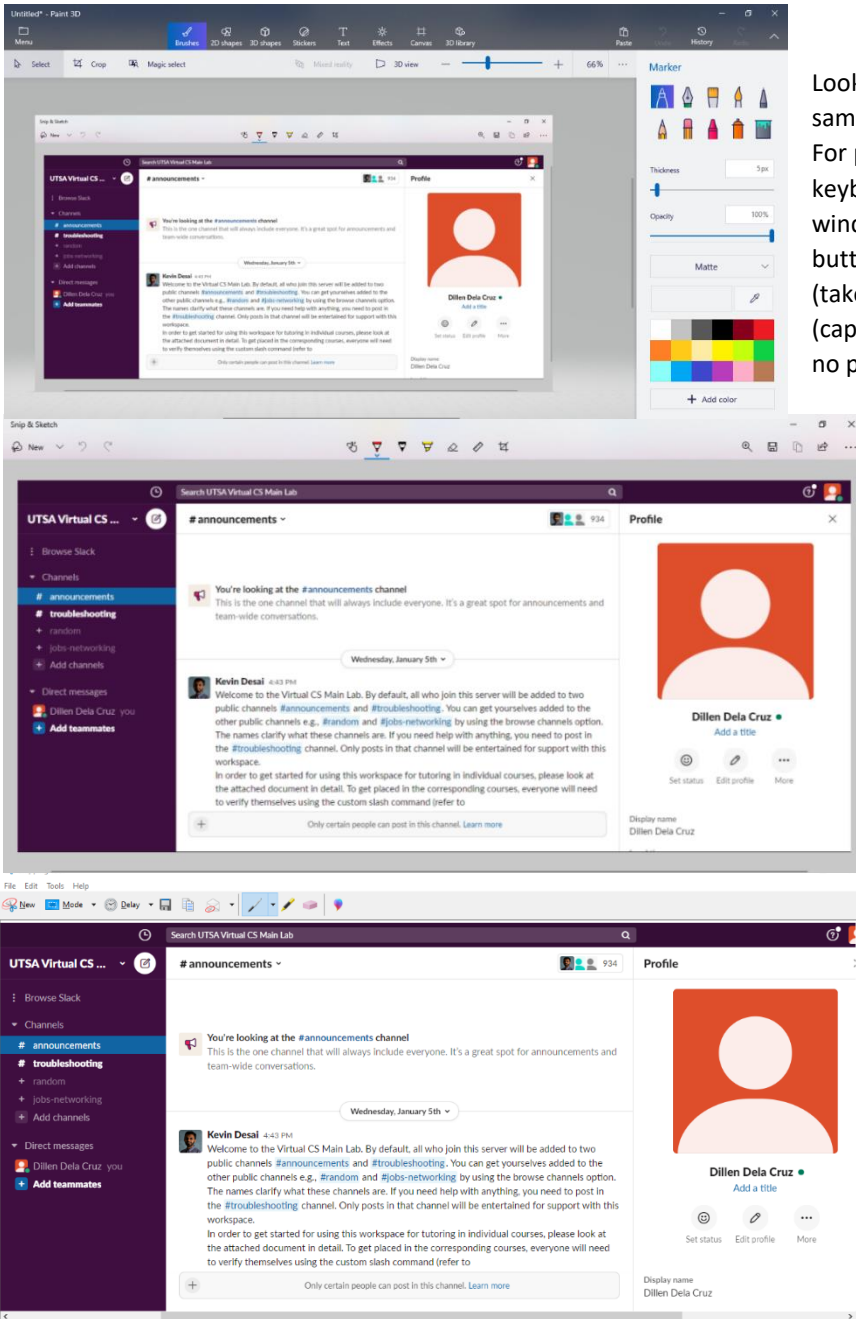
INTRODUCTION

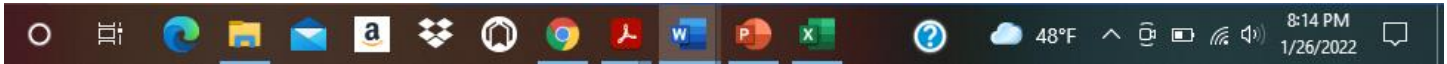
The purpose of this lab is to set up my writing space and practicing screenshots on my device, in order to write a lab report with narrative and screenshots. Another purpose is searching for and reporting on my computer specifications, while also using a search engine to find answers.

PROCESS

1. Practice Taking a Screenshot

Looking at picture 2 and 3 we see that it is a screenshot of the same page. The only difference is how they were screenshots. For picture 2, I used print screen which was located on the keyboard and picture 3 was done with the snipping tool found on windows search bar. For MacBook, there is no print screen button but a shortcut to take a screenshot, Shift+command+3 (take a screenshot of whole Mac screen) or Shift+command+4 (capture just a selection of your screen). For Chromebook, it has no print screen but has a snipping tool which can be accessed using shift+Ctrl+Show Windows (specific area snip) or Ctrl+Show Windows (Full window Snip). For the explanation we will be comparing windows features. For accessibility, the snipping tool was easier to use. All you had to do was type snipping tool in the search bar that is on the bottom taskbar and it'll appear. From there, you just click on it and it will allow you to screenshot. On the other hand, I was surprised that you had to turn on the print screen action in your settings to activate the screen print button. If you didn't know that, you would have to google it which would use up more of your time, therefore the snipping tool is quick and easy. If you look closely to picture 2 (snip from prnt sc) we see that it's blurry compared to picture 3 (snip of snipping tool) which is very crisp, and you can see every word clearly. The print screen is very limited to what you can do with the image; highlight, use pen/pencil, ruler, crop, and touch writing. Snipping tool at first can only provide pen, highlighter, and eraser but if you go under "edit" and press "Edit with paint 3d" it will take you to another windows program that will allow you to do so many things to your screenshot (picture 1) and keep the clear screenshot from the snipping tool. I was surprised that it came with this feature and found out it was introduced to snipping tool April 2018. Overall, the snipping tool is better to use for simple or even complex uses. It is also user friendly.

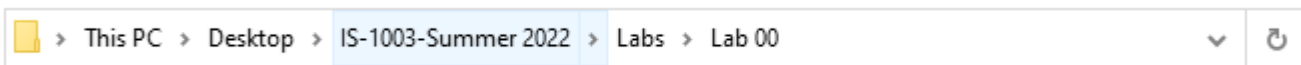




2. Set Up Your Writing Space

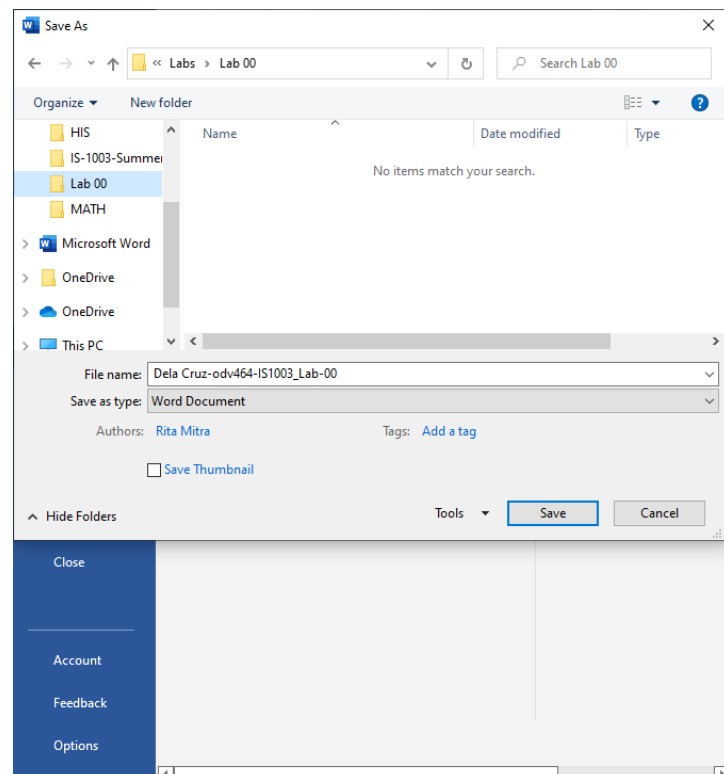
Up above is the screenshot of my taskbar that shows my word processing and other Microsoft applications. The picture also contains Adobe Acrobat. In downloading these processes, I came across the screen “Do you want to allow this app to make changes to your device?”. The reason for this screen is due to the User Account Control (UAC). I was surprised that this was a built-in system that helps reduce the impact of malware. Malware is software that’s designed to damage your computer or your computer systems. Another surprising fact I learned about Malware is that it’s a contraction for MALicious softWARE. Back to User Account Control, UAC applies to Windows 10,11, and Windows Server 16 and above. There are two types of accounts, Administrative and Non-Administrative. Most likely you would be running on a non-administrative account (gives you a “consent prompt” (third picture)) if you are using your own computer however if you aren’t there is a possibility you could be using an administrative account where, an admin authorizes administrator-level access to the system. This would mean if you were to download Microsoft 365 on a work laptop you would be given a “credential prompt” (second picture) which would ask you for a password in order to download this app. Another feature of the UAC is to block automatic installations of unauthorized apps and changes to system setting. After being a student at UTSA we know that the free adobe cloud will be gone and

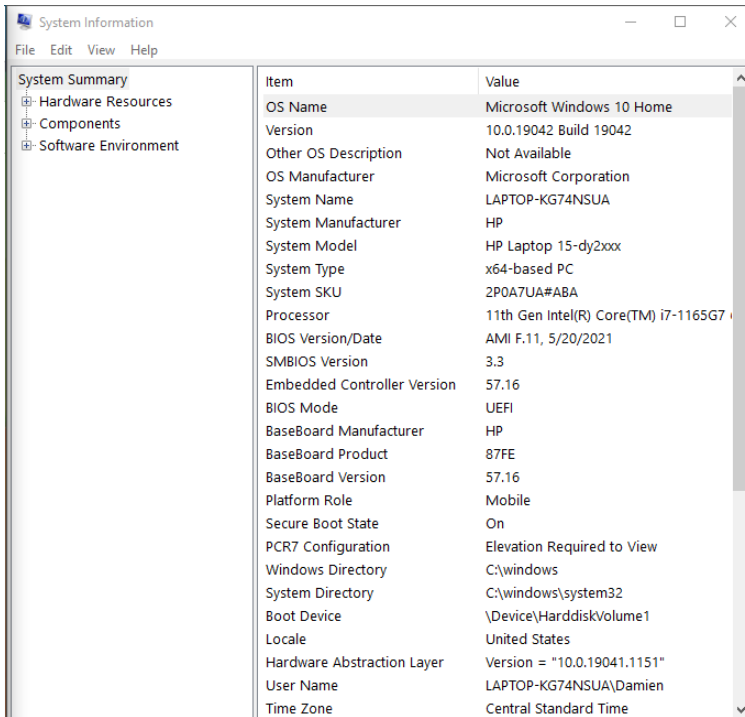
so will our way of changing documents into pdf. However, did you know there was a free version of the actual Adobe Acrobat called Adobe Acrobat Reader. The only downside is that it can only do a limited number of things on Reader such as digital signatures, converting documents into pdf, sticky note and highlight tool. But if you only used the pdf converter or the sign tool this is a very handy app to download and plus its free to use.



3. Setup Your Course Folder

The pictures you see are of my save screen (right) where I renamed my document. The top picture are my folders that are organized in hierarchy. Under Lab 00 is where I had saved this lab report. Before I learned that instead of using space you use underscores and ever since then I’ve been using them. I learned now that using hyphens will improve search engine rankings. Search engines will read an underscore as a joiner of two words. While using a hyphen, will be read as two different words. Some special characters are reserved for special uses like the forward slash which is used as file paths to separate a directory. A directory is a collection of files that created for organizational purposes, hence the hierarchy of the folders in the picture above. In the end it’s best to avoid special characters in your file name. When naming a file, it should reflect what that file is about so it’s easy to retrieve by you or even by another person.





Item	Value
OS Name	Microsoft Windows 10 Home
Version	10.0.19042 Build 19042
Other OS Description	Not Available
OS Manufacturer	Microsoft Corporation
System Name	LAPTOP-KG74NSUA
System Manufacturer	HP
System Model	HP Laptop 15-dy2xxx
System Type	x64-based PC
System SKU	2P0A7UA#ABA
Processor	11th Gen Intel(R) Core(TM) i7-1165G7
BIOS Version/Date	AMI F.11, 5/20/2021
SMBIOS Version	3.3
Embedded Controller Version	57.16
BIOS Mode	UEFI
BaseBoard Manufacturer	HP
BaseBoard Product	87FE
BaseBoard Version	57.16
Platform Role	Mobile
Secure Boot State	On
PCR7 Configuration	Elevation Required to View
Windows Directory	C:\windows
System Directory	C:\windows\system32
Boot Device	\Device\HarddiskVolume1
Locale	United States
Hardware Abstraction Layer	Version = "10.0.19041.1151"
User Name	LAPTOP-KG74NSUA\Damien
Time Zone	Central Standard Time

Computer Specs – Figure 1

Alvarez college of business of Tech Requirements – Figure 2

Processor: Intel® Core™ i7 or AMD Ryzen 5

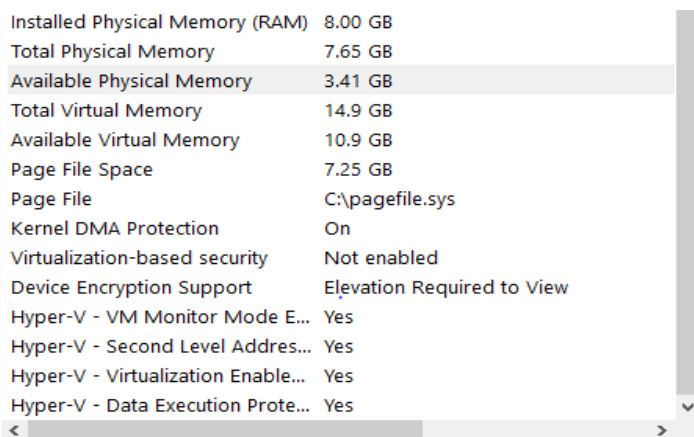
RAM: 16 GB

Webcam (internal or external), speaker and microphone

Wi-Fi capability

Windows 10 Education or Professional operating system

Additional Requirement: reliable broadband internet connection



Installed Physical Memory (RAM)	8.00 GB
Total Physical Memory	7.65 GB
Available Physical Memory	3.41 GB
Total Virtual Memory	14.9 GB
Available Virtual Memory	10.9 GB
Page File Space	7.25 GB
Page File	C:\pagefile.sys
Kernel DMA Protection	On
Virtualization-based security	Not enabled
Device Encryption Support	Elevation Required to View
Hyper-V - VM Monitor Mode E...	Yes
Hyper-V - Second Level Address...	Yes
Hyper-V - Virtualization Enable...	Yes
Hyper-V - Data Execution Prote...	Yes

4. Search for Your Computer and Connection Specifications

My Operating System (OS- first picture) is Microsoft Windows 10 Home. An operating system manages and contains all programs and applications that a computer can run. This means that it runs a computers hardware and software. As you can see my computer is a windows 10 home version different from the windows 10 pro. The difference between the two versions is that the home version doesn't have Hyper-V (run multiple OS virtual machines on Windows), BitLocker(secures your files on your hard drive or external USB flash drives), Microsoft Update for Business (makes sure your devices are up to date with the latest security defenses and windows features) , Remote Desktop (remotely connect to anther computer within the same domain), and Assigned Access (function to determine which app other users are allowed to use).

Version: 10.0.19041.1151

OS Manufacturer: Microsoft Corporation

System Manufacture: HP

System model: HP Laptop 15-dy2xxx.

System Type: x64-based PC (this means you have a 64-bit system)

Processor: 11th Gen Intel® Core™ i7-1165G7

(It is said that this type of processor is for those who want maximize speed without entering the high-performance laptop processor, the H series. H series are more expensive, more-power hungry, and run hotter than the mainstream Core G series)

Installed Physical Memory (RAM): 8.00 GB

Available Physical Memory: 3.41 GB

Internet connection: Spectrum Wireless 200Mbps

Using the “speed test” I found that my internet has a Ping of 20ms, Download speed of 233.69 Mbps, and upload speed of 11.55Mbps. A ping is the reaction time of my connection, it is how quickly my device gets a response after I sent out a request. It is measured in milliseconds so lower pings, like 20, means a faster response. Download speed is how quickly my laptop can pull data from a server on the internet to my device, such as loading web pages or downloading files. On the opposite spectrum upload speed is how quickly your device can send information to other devices or servers on the internet. What I found out is that multiple people on an internet will spilt the bandwidth (“the maximum amount of data transmitted over an internet connection in a given time” (Verizon)) amongst the people on the internet, which will reduce performance in transfer rate and internet speed.

Comparing my specs to the Alverez college of business of Tech Requirements, I see that my computer lacks in 2 of the 6 areas. My Windows 10 OS is not an education or pro but a home version which I said earlier doesn’t have some features that the pro has. This will create problems in future classes since it doesn’t have the capability to create, use, or connect several virtual machines (Hyper-V). The amount of RAM my computer has will not be enough to save my work for this class each semester, on top of installing virtual labs and work from other courses. What I could do is buy another 8GB of ram and install in into my computer and go to the Microsoft store online to purchase the windows 11 pro.

	Home	Pro
Microsoft Edge The browser that makes the web work the way you do.	✓	✓
Microsoft Store Get verified apps, games, movies, and more from the Microsoft Store to protect your PC and keep it running smoothly.	✓	✓
Install any app Install and run apps from unknown and unverified sources. To avoid malware, always download from a trusted source.	✓	✓
Multiple Desktops and Snap¹ Create multiple desktops and snap up to four apps on one screen.	✓	✓
OneDrive Enjoy free online storage for your photos and files.	✓	✓
BitLocker² Help protect your data with enhanced encryption and security management.		✓
Remote Desktop³ Sign in and use your PC while at home or on the road.		✓
Hyper-V⁴ Create and run virtual machines.		✓
Private Catalog Access your company's apps through your own section in the Microsoft Store.		✓
Join Azure Active Directory Connect to your school, business, or corporate network via the cloud.		✓
Join a Domain Connect to your business or corporate network.		✓

Here we have the differences between Windows pro and home features

HP 15-dy2xxx Series Laptop Compatible Memory RAM & SSD Upgrades

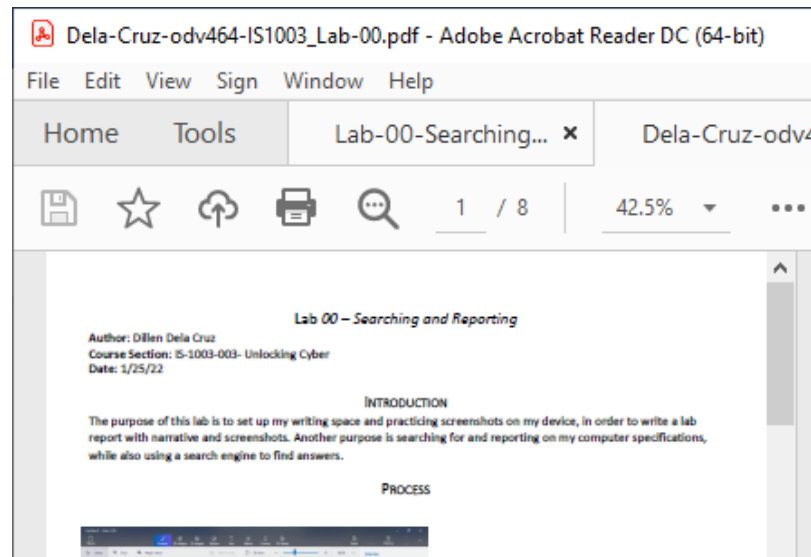
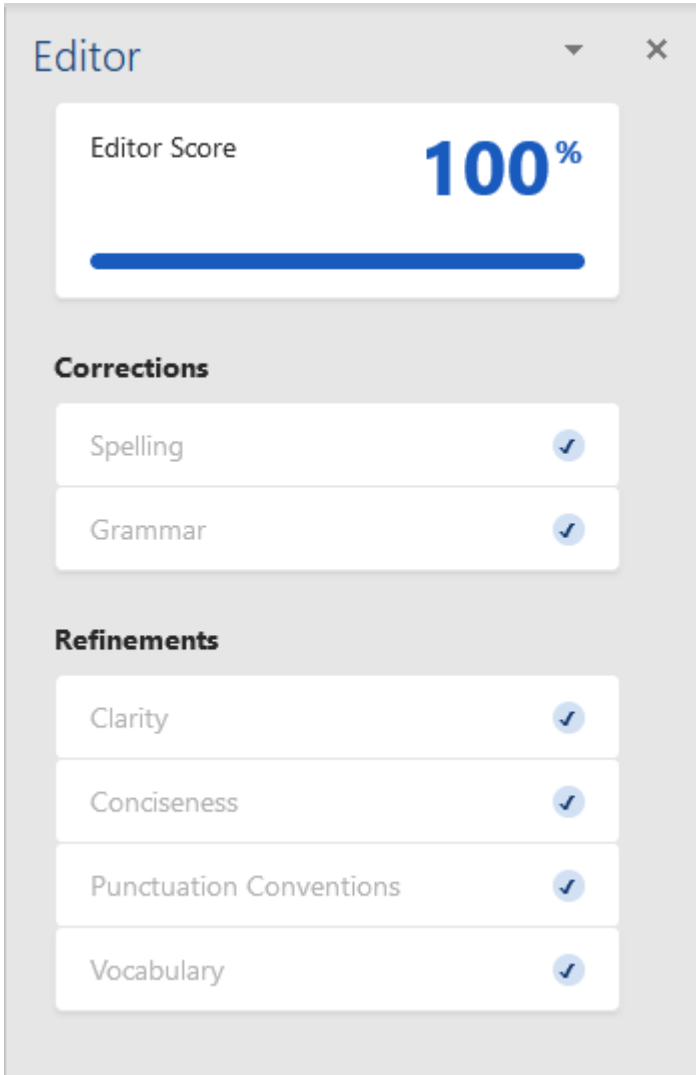
[View all HP Laptops](#), [View the full 15-dy Series](#) or [Find your Device](#)

Device Specifications	
Maximum Memory	32GB
Maximum Memory Per Slot	16GB
Number Of Memory Sockets	2

Since my computer has 2 slots of memory. Adding another 8 GB to my system will meet the Alverez college of business of Tech Requirements

5. Edit and Save Your Lab Report

I used the editor tool to correct and refine my lab report before I submitted it. I also saved this lab report as a pdf.



LIMITATIONS/CONCLUSION

There were no limitations for this lab, I had all the resources I needed to complete each Breakpoint. The goals for the techniques and tools used in this lab were to prepare us for my professor's class this semester and to be successful in performing/ sending these labs properly. Another goal was to gain an understanding of our equipment we'll be using throughout the semesters. These are relevant to my degree and my future career since I need to be organized to work effectively and prepared with the necessary tools/ techniques. What I mean by this is that if I am working with a group and need certain files, I need to be able to access them quickly and send it to them with no trouble. When starting a career or even another class in my major, I need to understand what is needed, for example in this lab I had compared my specs with the ones on the Alverez college of business of Tech website. There I found that my computer had needed to be upgrade to a pro version and that I needed more RAM to be successful during the semesters. Even in the beginning of this course, I had learned that I needed to download both Office 365 and Adobe Creative Cloud to do this lab and future labs and turn them into a pdf. These techniques and tools are very effective, they made me aware of what the basic principles of this class are and how I can use them in my future career or courses. The other aspects I would like to explore are the main skillsets you need to be able to succeed in multiple areas of Cyber Security.

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COLLABORATION

For this lab I had done this all independently.