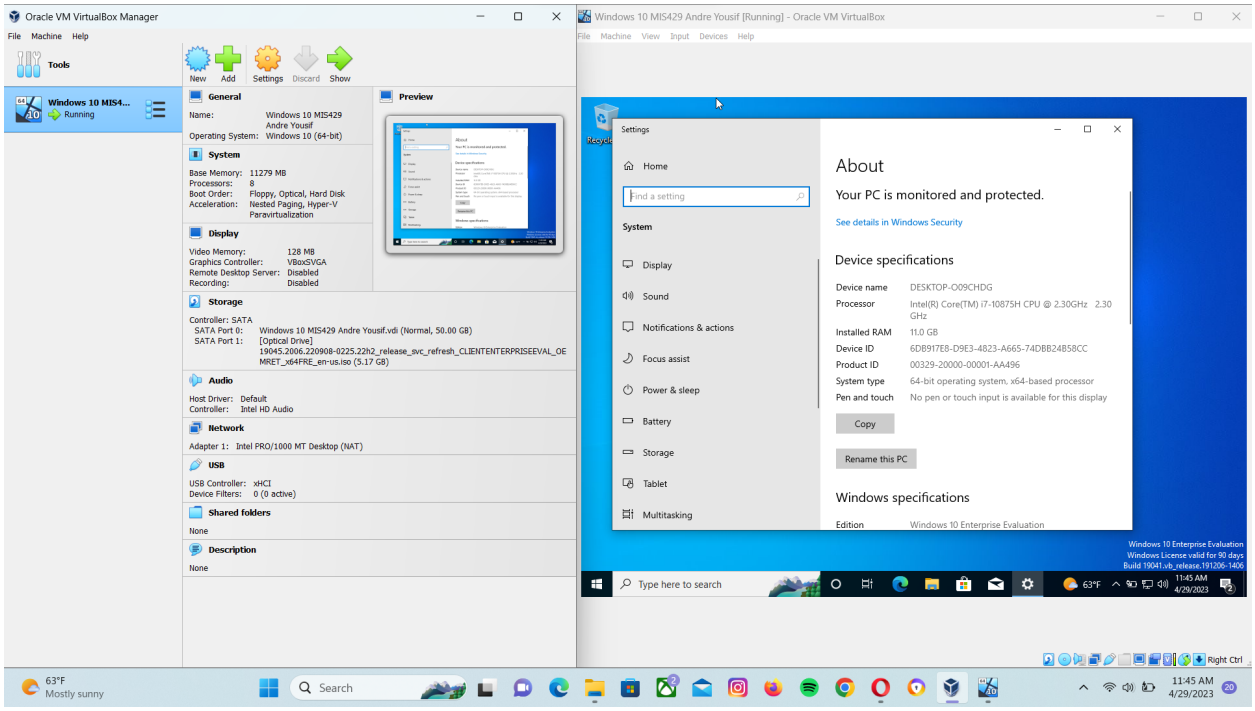
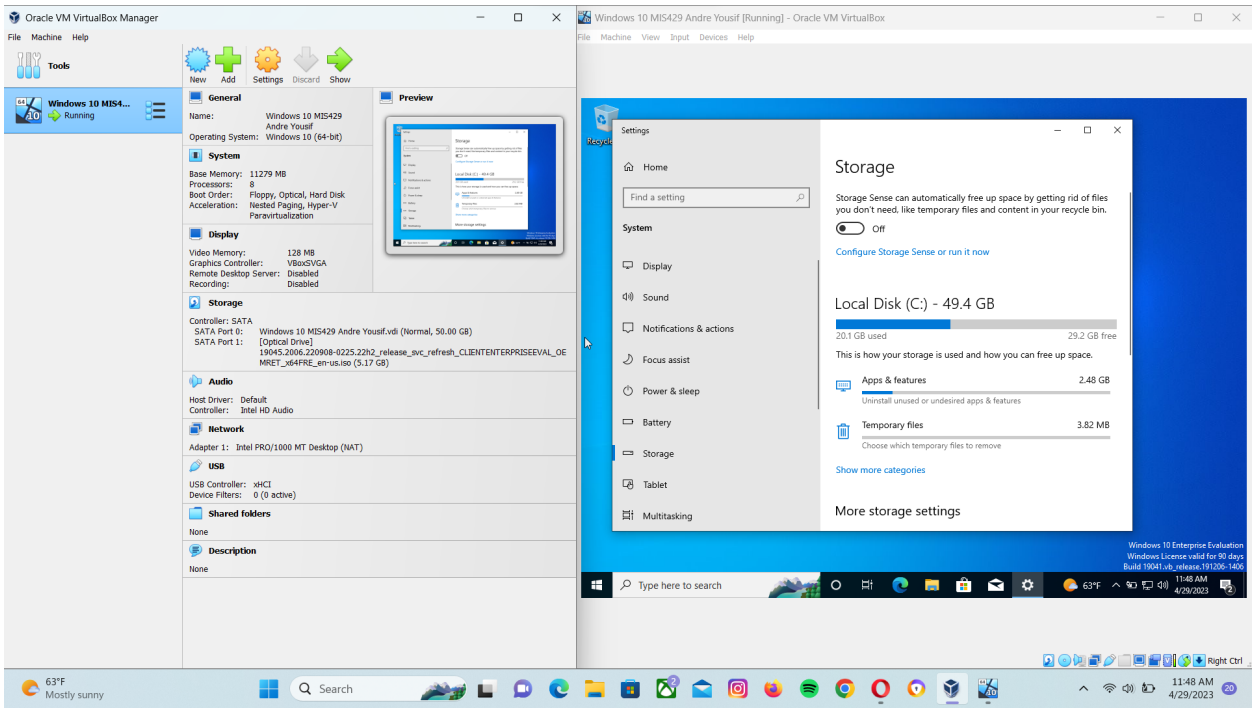
Virtualization

Screen Shots:

1) VM's resource configurations (memory, processor, storage) from within Virtual Box (the application, not the VM you created).

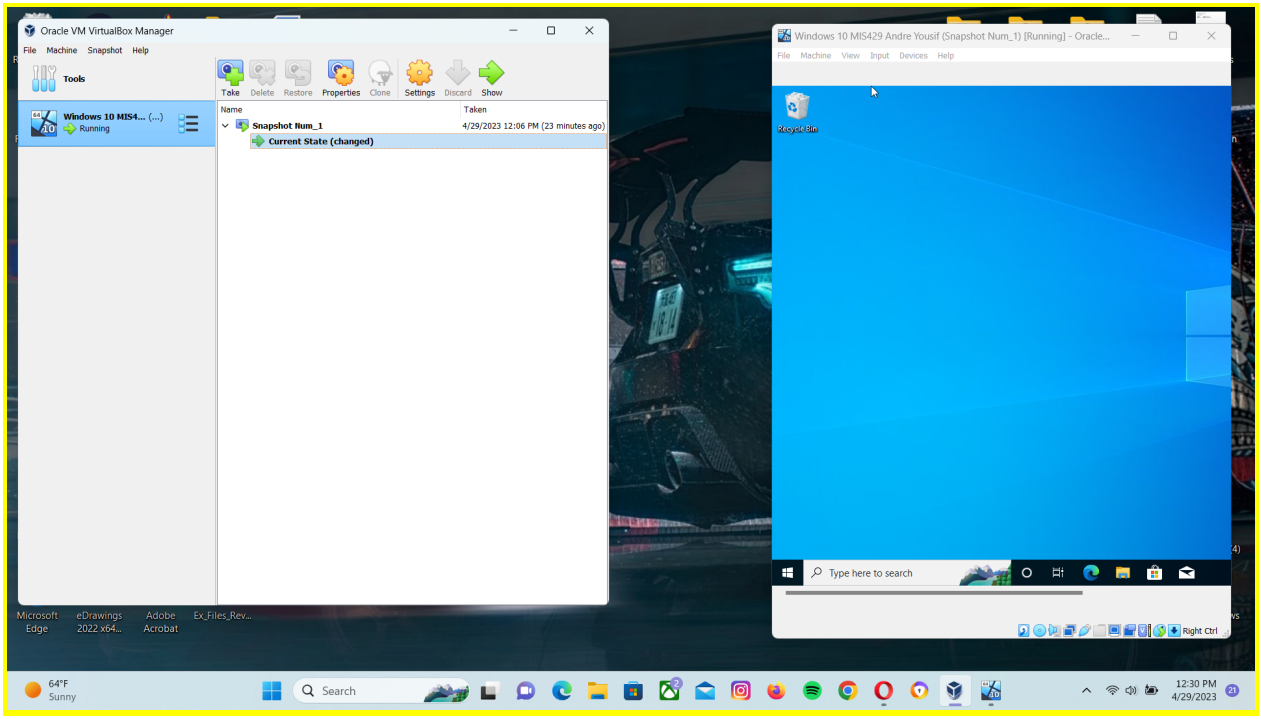
Name of my Virtual Machine: **Windows 10 MIS429 Andre Yousif**





2) Screenshot of your host machine that shows your virtual machine successfully running.
    - The screenshot is FROM the host machine showing the the virtual machine running inside of the virtualization software you're employing

This is a screenshot of my host machine that shows the virtual machine running successfully inside of the virtualization software I'm employing.

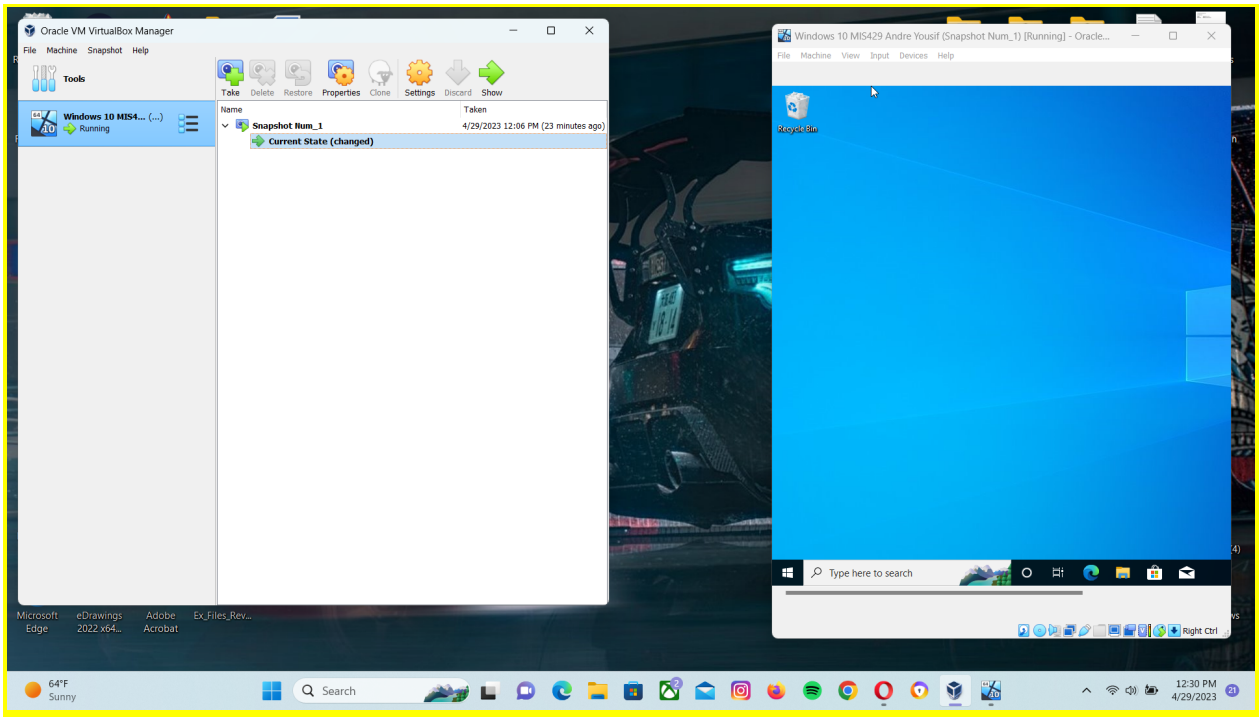


Questions:

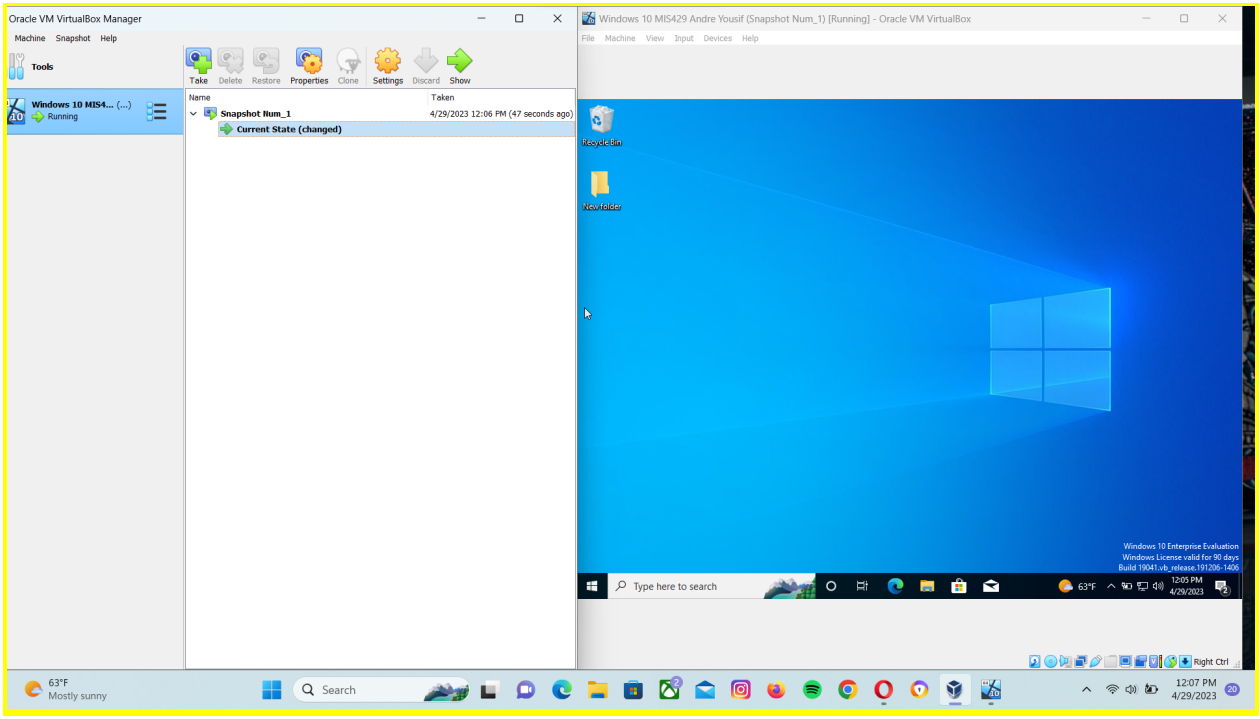
Express what the effect was of taking a snapshot before a change, and restoring to a snapshot after a change was made. Your answer should explain why the file created in step b) is gone, and what the effect of restoring to a snapshot from before you created the file was?

- Taking a snapshot before making a change and restoring to that snapshot after the change was made allows me to undo any changes made to the system. In this case, when the snapshot was taken before creating the file on the desktop, the file did not exist in the system. Restoring to the snapshot from before the file was created erased any changes made to the system since that snapshot was taken, including the file that was created on the desktop. The effect of restoring to the snapshot from before the file was created was to roll back the system to the state it was in before the file was created.

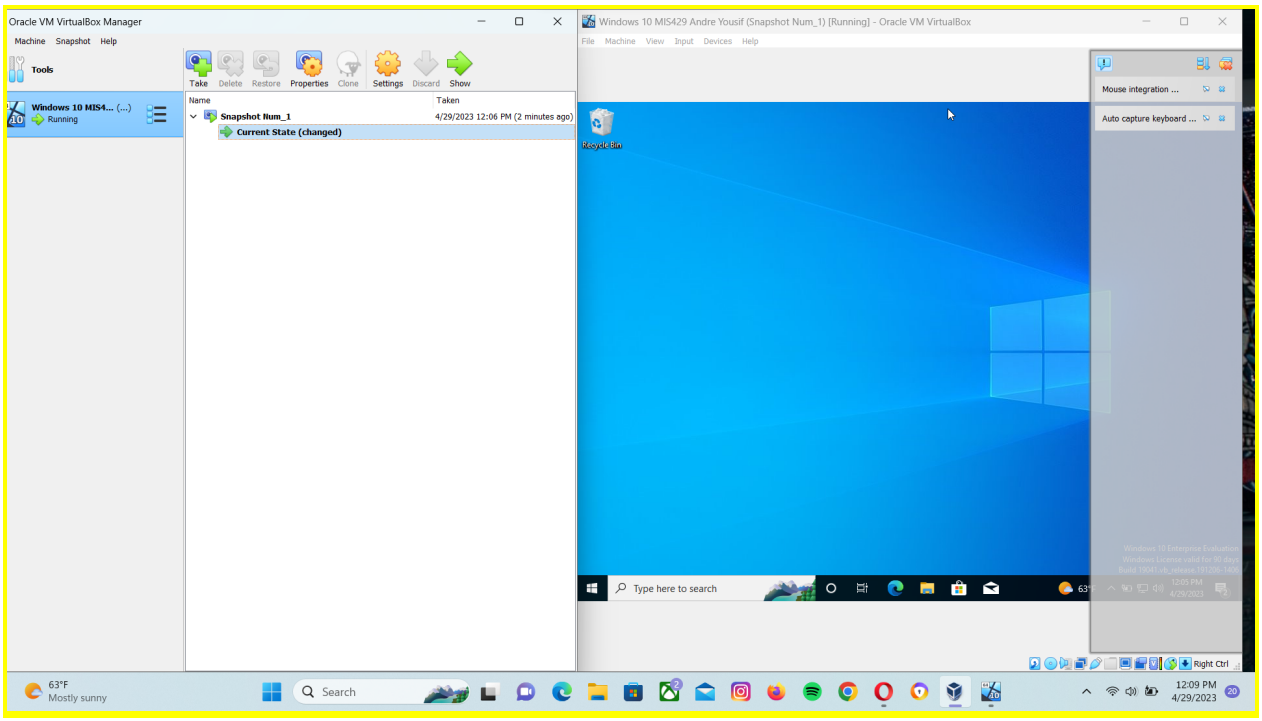
1) Snapshot Num_1 created



2) Folder Created



3) Virtual Machine Powered off and then restoring snapshot and then powering the VM on again to show the file created does not exist.



How might a software developer use this functionality when developing or testing a new system?

- Software developers can use virtual machine snapshots to test and debug their software in different environments. They can create multiple snapshots of a virtual machine with different configurations and test their software in each of them. This allows them to easily switch between different environments and test their software in a variety of scenarios, without having to set up and configure multiple physical machines.

How might a system admin use this functionality in the course of their job when applying a new update, firmware, or feature deployment to a virtualized server or environment?

- System admins can use virtual machine snapshots to quickly roll back a server or environment to a known-good state in the event of a failed update, firmware, or feature deployment. This would allow them to quickly revert to a previous state if the update or deployment causes any issues.

What were the system configurations you gave your system (Memory, Storage, Processor(s), etc)? Why those values? What were the limiting factors in not provisioning the virtual machine with double, triple, or 10 times that amount?

- Memory: 11.0 GB Storage: 49.4 GB

I chose those values to provide a reasonable amount of resources for a basic Windows 10 installation. The limiting factors in not provisioning the virtual machine with more resources were the available resources on the my physical host machine and the desired level of performance for the virtual machine.