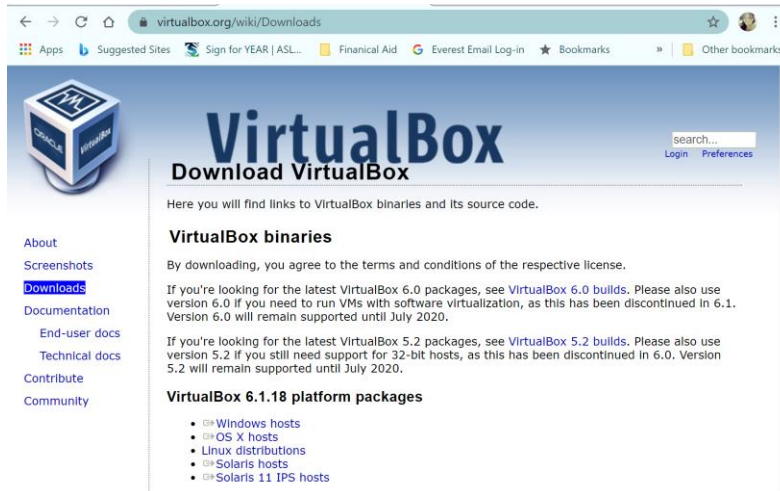


READ ME:

This is a step-by-step guide on how our team downloaded VirtualBox, setup a Windows 7 Virtual Machine, and ran the WannaCry Ransomware.

How to Download Virtual Box:

- Go to <https://www.virtualbox.org/wiki/Downloads>



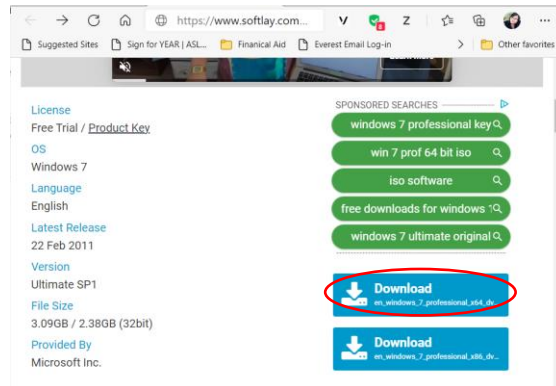
- Select your Operating System and Download (Windows hosts, S X hosts, etc.)



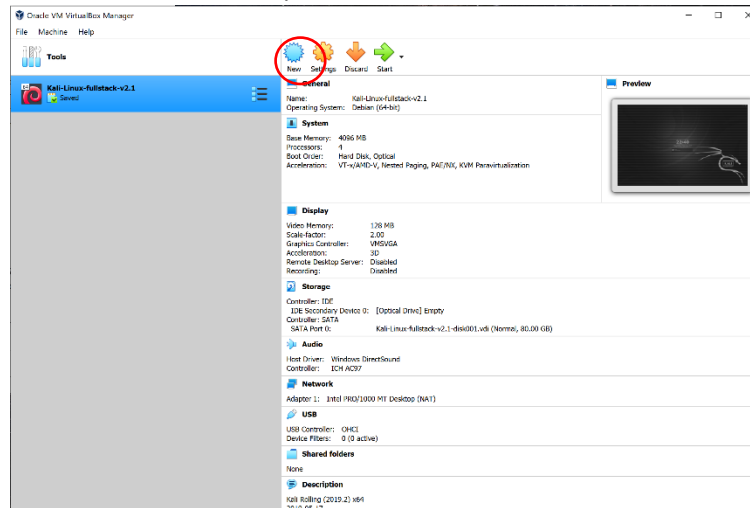
- Follow Virtual Box Prompts and complete Installation



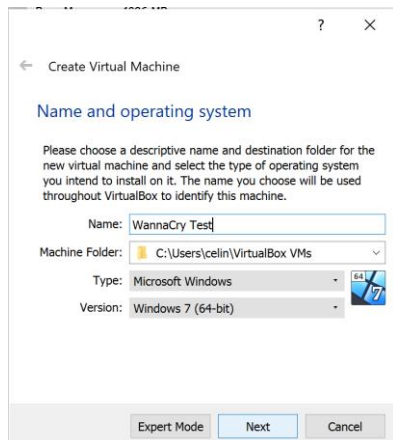
- I went to the following website to obtain ISO file for Windows 7:
 - [Windows 7 Professional Full Version Free Download ISO \[32-64Bit\] 2019 - Softlay](https://www.softlay.com/operating-system/windows-7-professional-full-version-free-download-iso-32-64-bit.html)
 - <https://www.softlay.com/operating-system/windows-7-professional-full-version-free-download-iso-32-64-bit.html>
 - Selected the first blue "Download" option "en_windows_7_professional_x64_dvd"



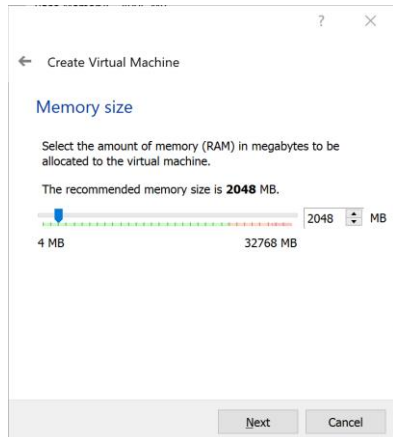
- Once Download is complete, select “New” on VirtualBox Manager



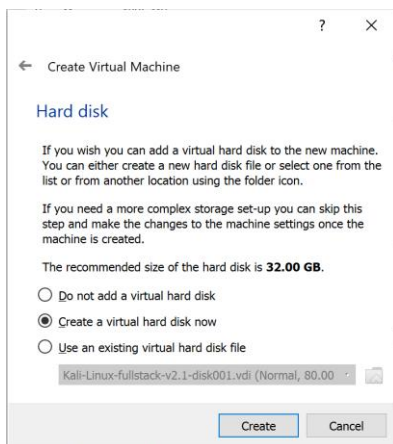
- Create Virtual Machine
 - Create a name
 - Wannacry Test
 - Type:
 - Windows
 - Version [Windows] 7



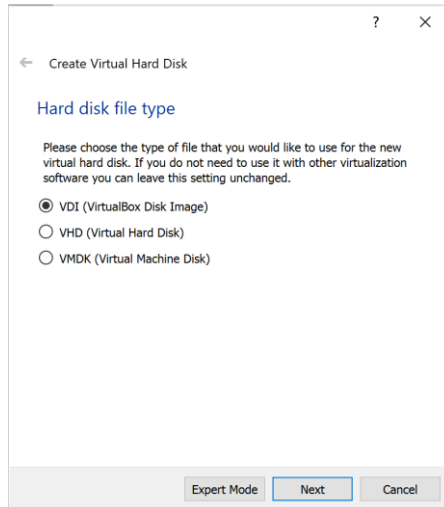
- Memory Size:
 - 2048 MB



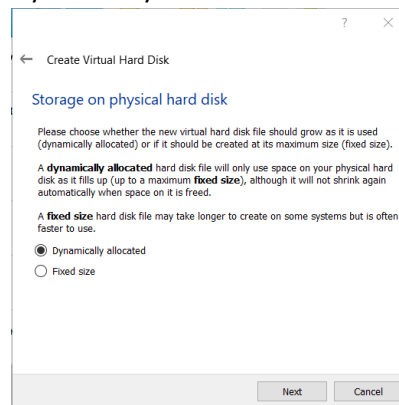
- Select “Create a virtual hard disk now”



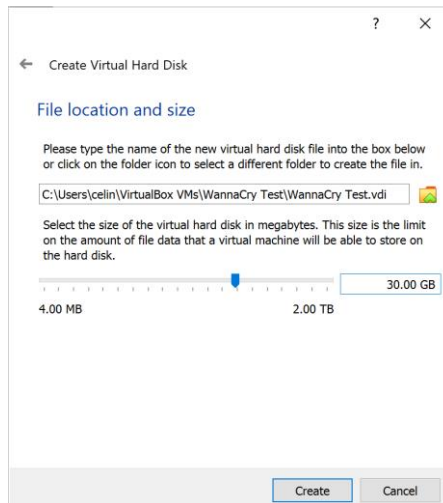
- Hard disk file type:
 - Use an existing virtual hard disk file



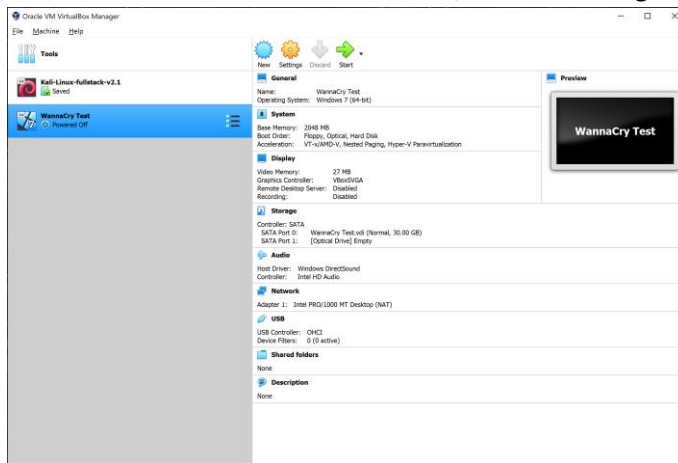
- Storage on physical hard disk:
 - Dynamically Allocated



- File Location and size:
 - Set it to 30 GB and click on Create

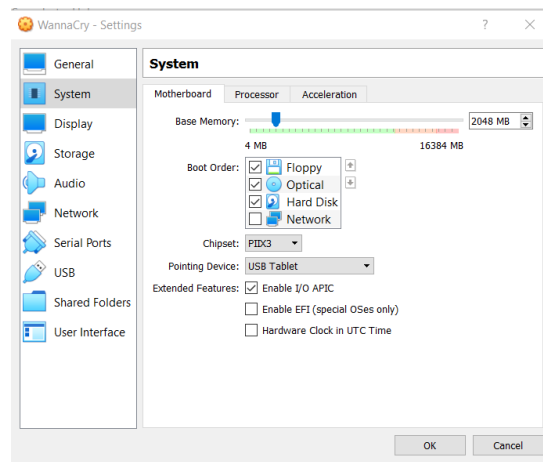


- Once VirtualBox Windows7 is created, click on Settings

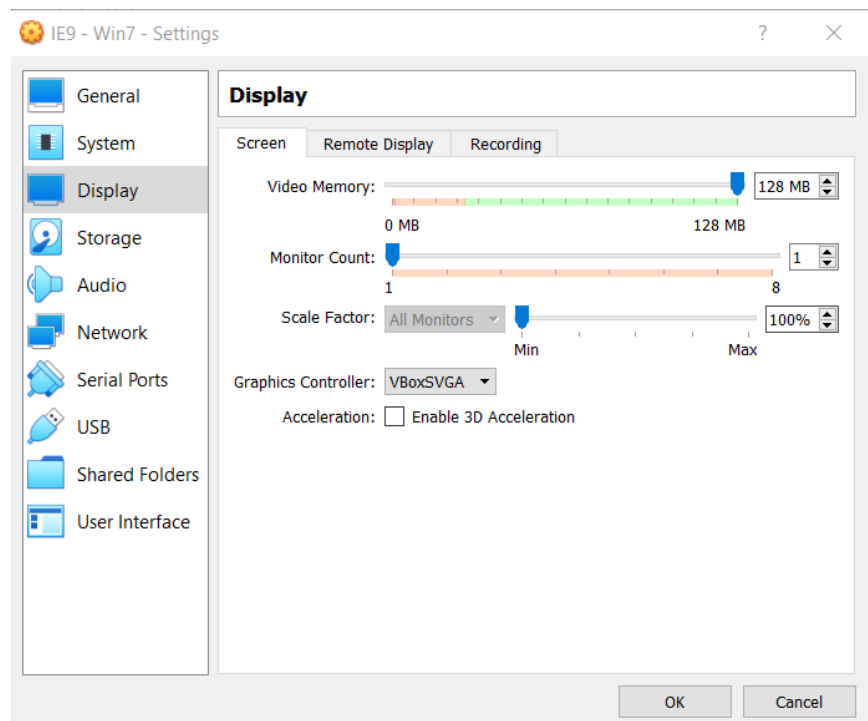


- General Settings
 - Advanced
 - Shared Clipboard:
 - Bidirectional
 - Drag'n'Drop:
 - Bidirectional
 - System
 - Base Memory:
 - 2048
 - Boot Order:
 - Check box for Floppy, Optical and Hard Drive
 - Chipset:
 - PIIX3
 - Pointing Device:
 - USB Tablet
 - Extended Features:
 - Checkbox for "Enable I/O APIC"

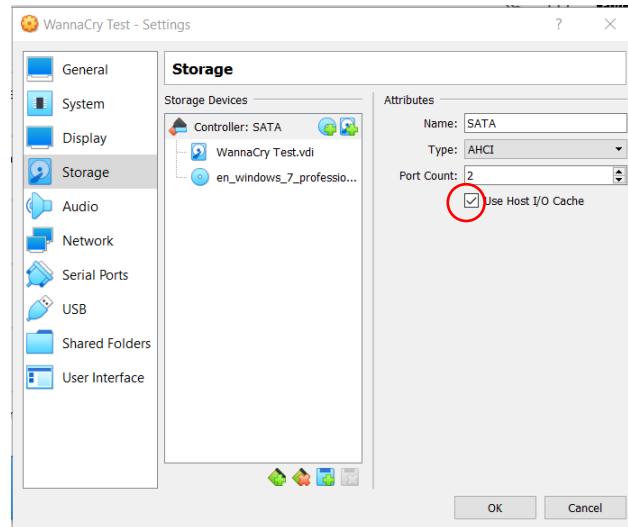
- Deselect Enable I/O APIC
- Deselect Hardware Clock in UTC Time



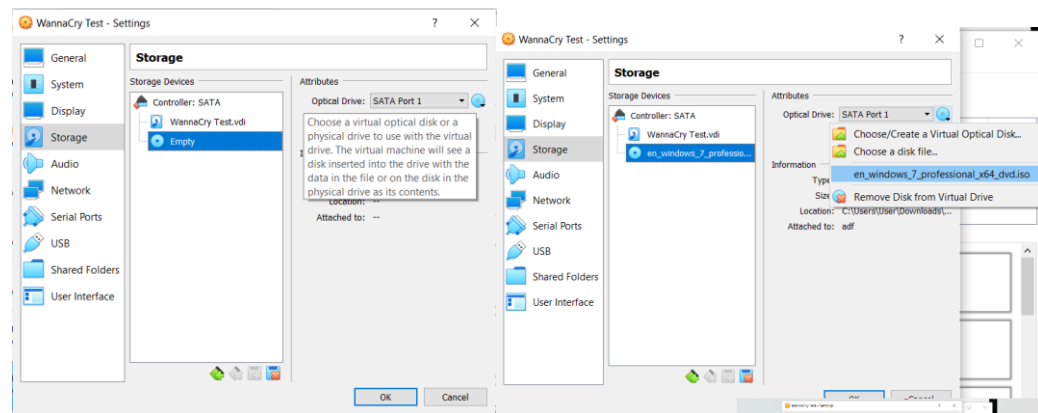
- Display
 - Graphics Controller
 - VBoxSVGA



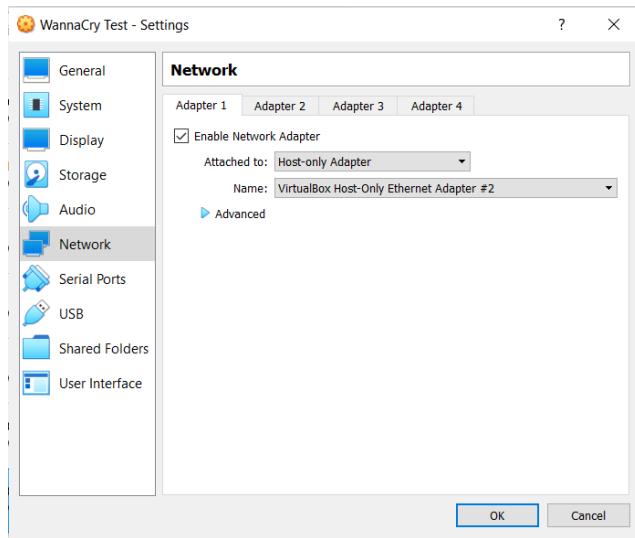
- Storage
 - Controller:
 - SATA
 - Checkbox on "Use host I/O Cache:



- SATA port 1:
 - Choose a virtual optical disk
 - Select en_windows_7_professional_x64_dvd.iso

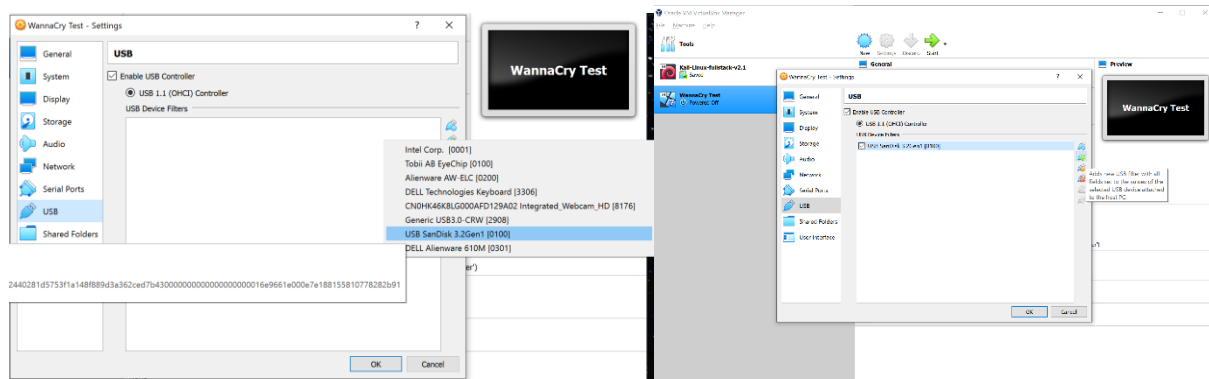


- Network
 - Attached to:
 - Host-only Adapter
 - Name:
 - VirtualBox Host-Only Ethernet Adapter
 - Checkbox on Enable Network Adapter
 - Click "OK"



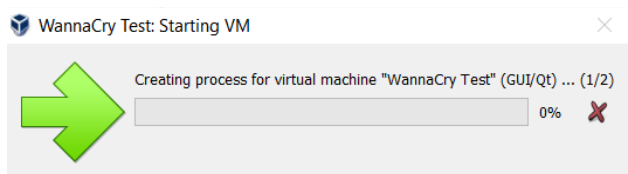
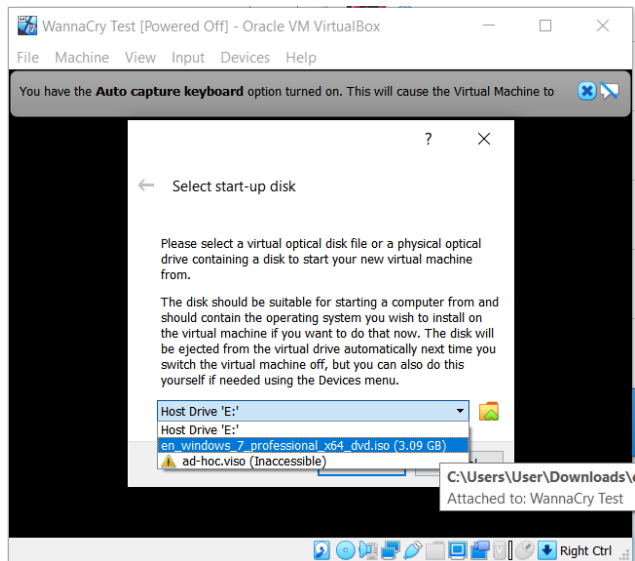
○ USB

- Make sure you add the USB thumb drive you will be using to transport the Wannacry Virus from. You want your VM to be able to read the flash drive.

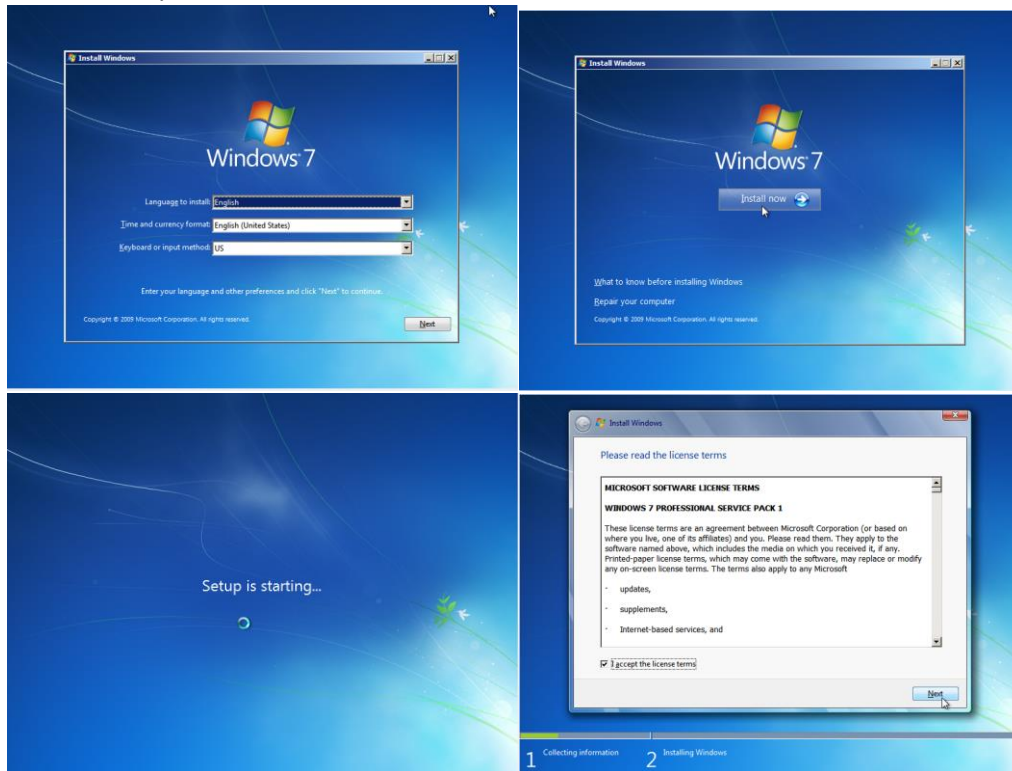


Setting-Up Windows

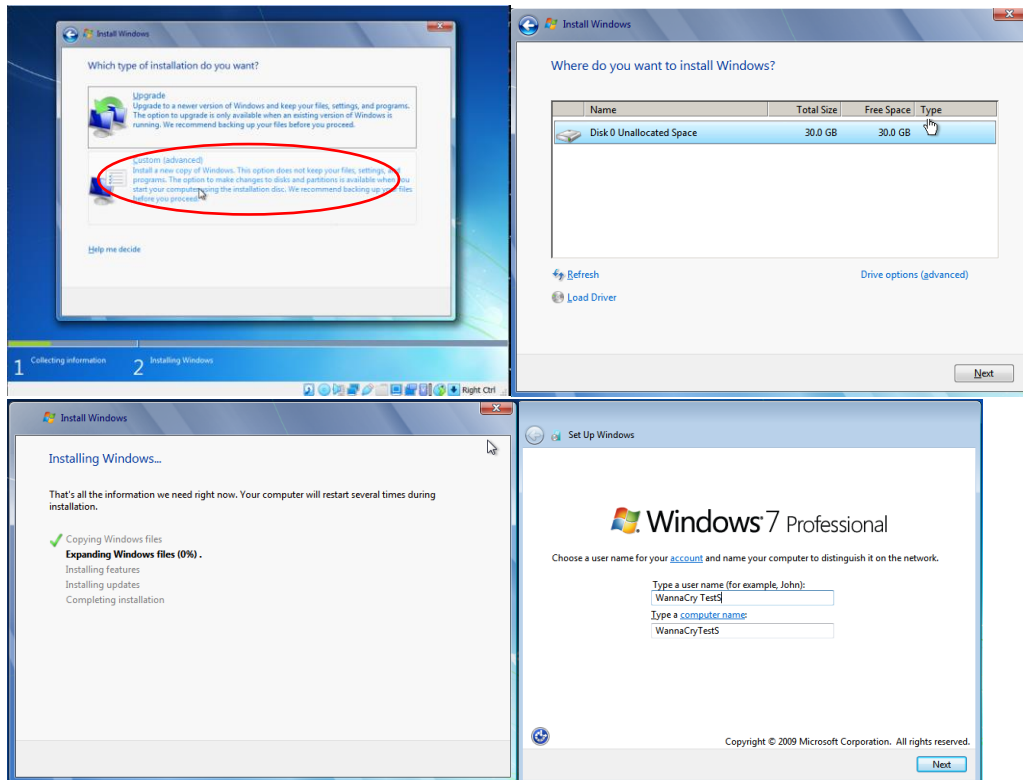
- Double-click on Windows 7 VM (Wannacry Test)
- Select following Start-Up Disk:



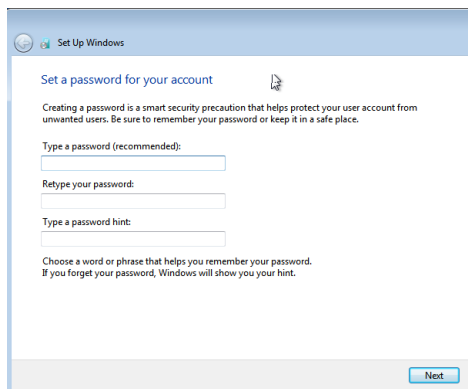
- Follow Set-Up Wizard to Install Windows 7



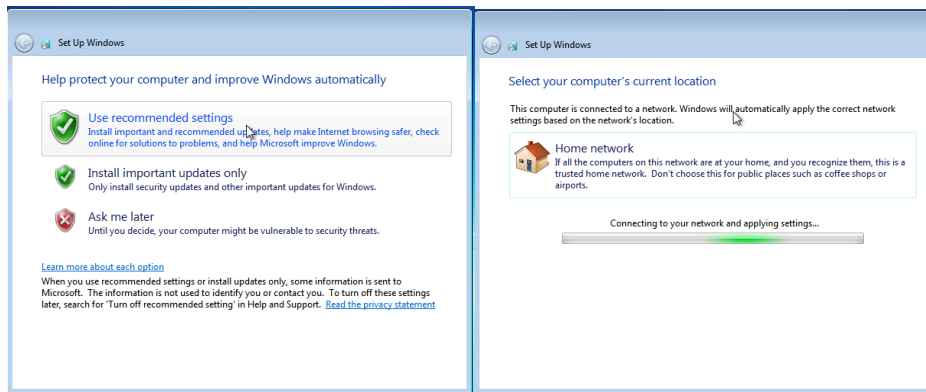
Make sure you select custom (advanced) installation:



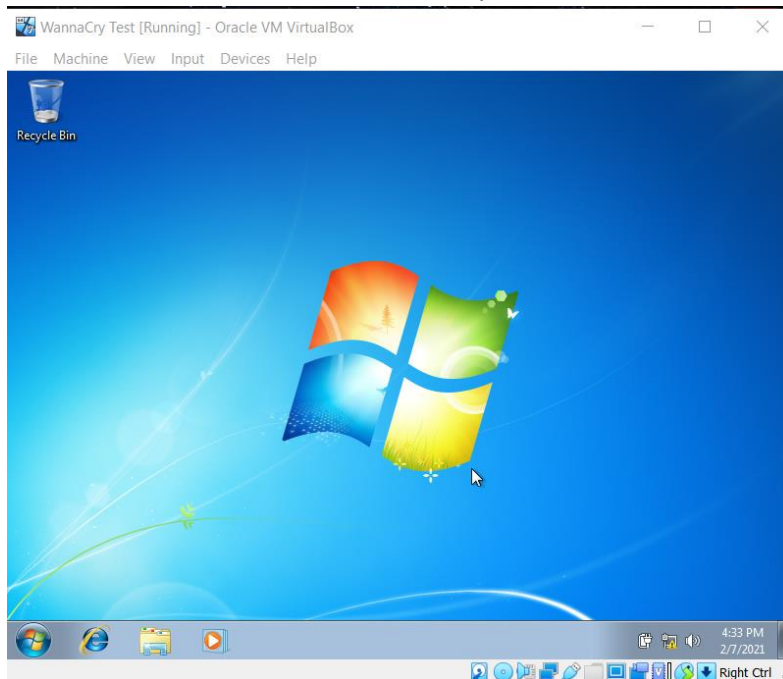
Product Key isn't needed, just click next



User recommended settings

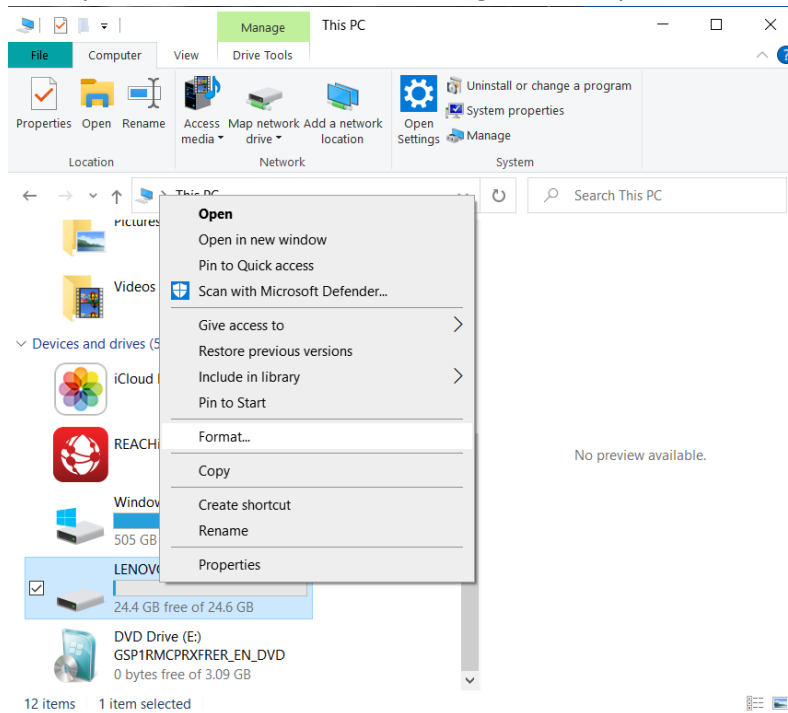


Your Windows VM has been successfully downloaded!

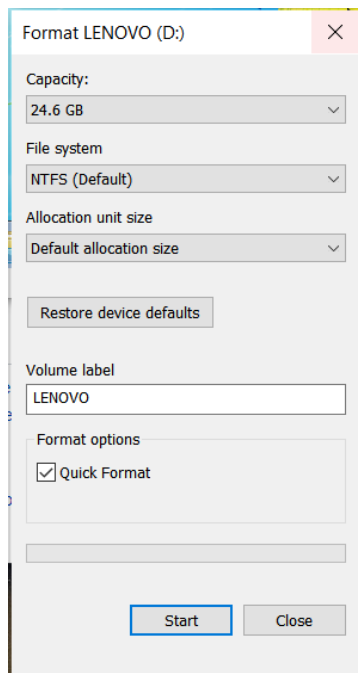


WannaCry and USB Set-up

- Go to your “Devices and Drivers” and right click on your thumb drive and select Format

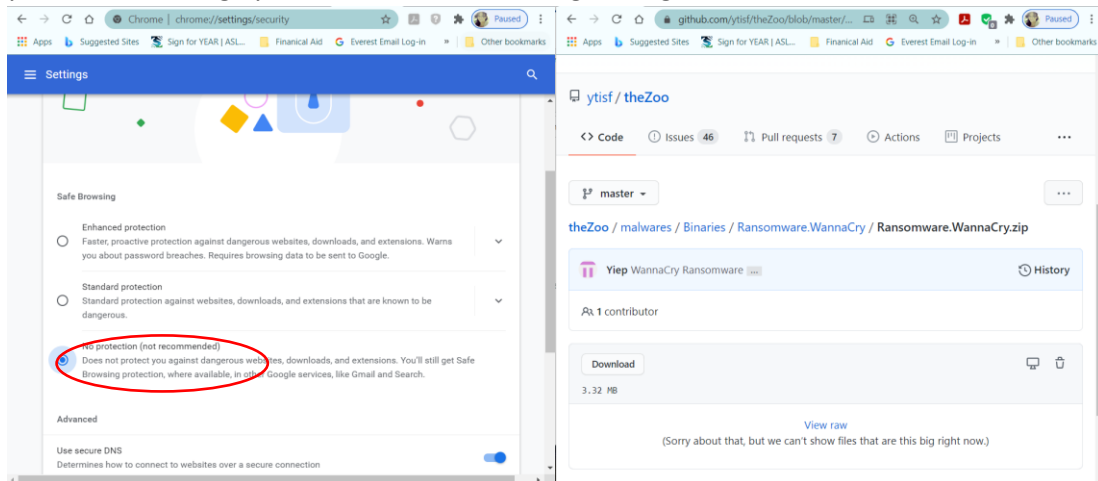


- Change File System to NTFS and Allocation unit size to Default allocation size. Afterwards click on start

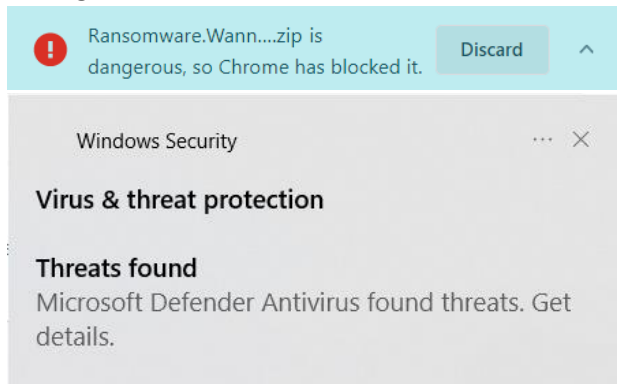


- To download Wannacry we went to <https://github.com/ytisf/theZoo/blob/master/malwares/Binaries/Ransomware.WannaCry/Ransomware.WannaCry.zip>

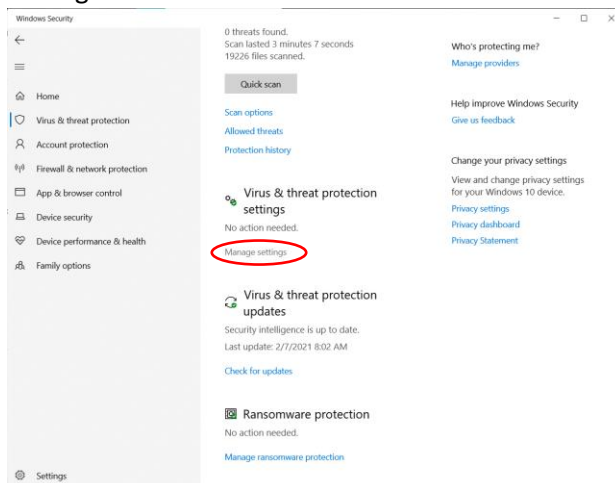
- Click on Download (the browser I'm using is Microsoft Edge, Chrome has security features that prevent me from downloading it, however, change your Windows Defender settings and then you can also change your Chrome Safe Browsing Settings to "No Protection"



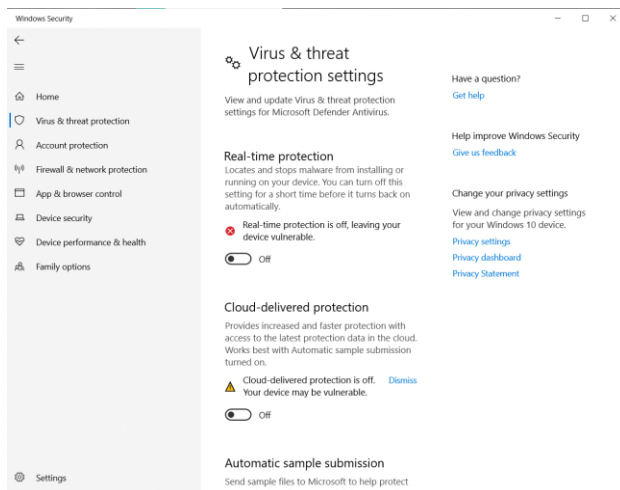
- Your browser or Firewall may block this, you will then need to change your Windows Security settings



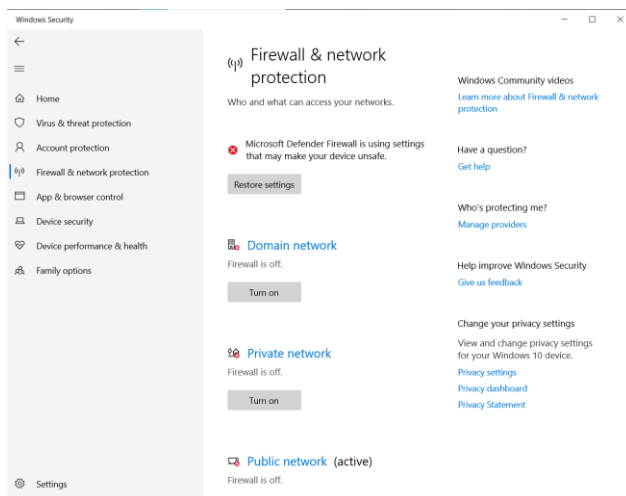
- On Virus & threat protection, click on "Manage settings" under Virus & threat protection settings



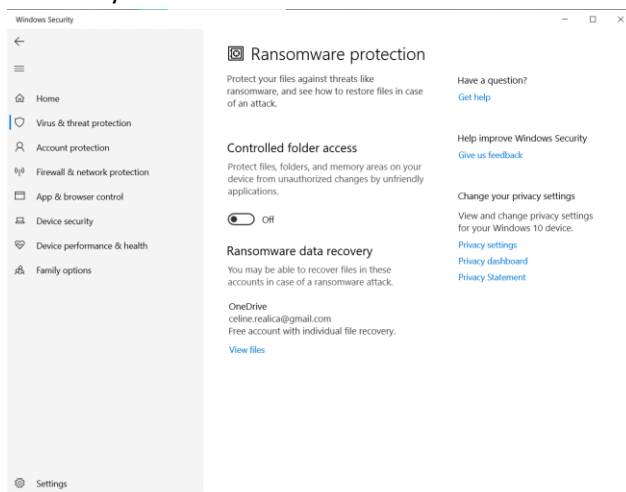
- Turn OFF real-time protection and cloud-delivered protection



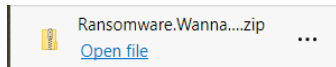
- On Windows Security, select Firewall and Network Protection
- Turn Firewall off



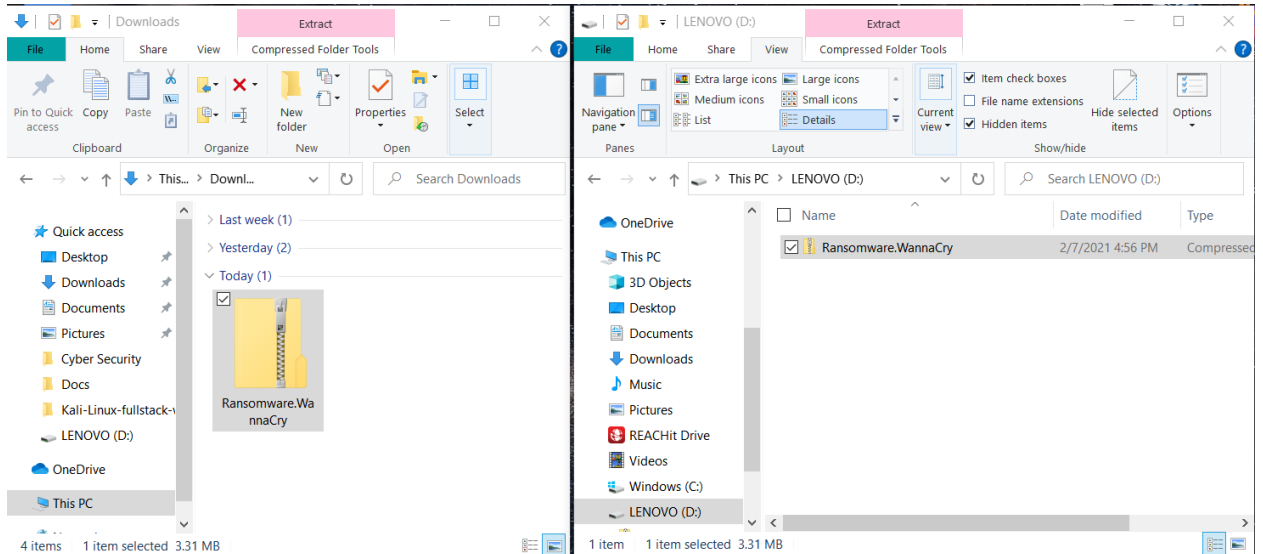
- Turn off your Controlled folder access:



- Go back to browser and download file. As long as the file remains zipped your system is safe

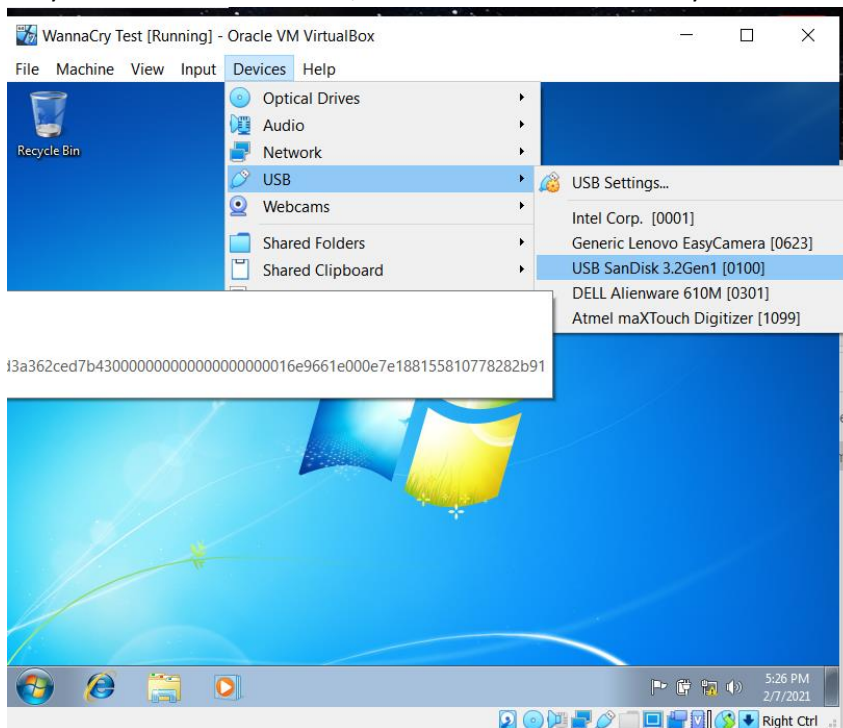


- Copy Ransomware.WannaCry folder to your thumb drive

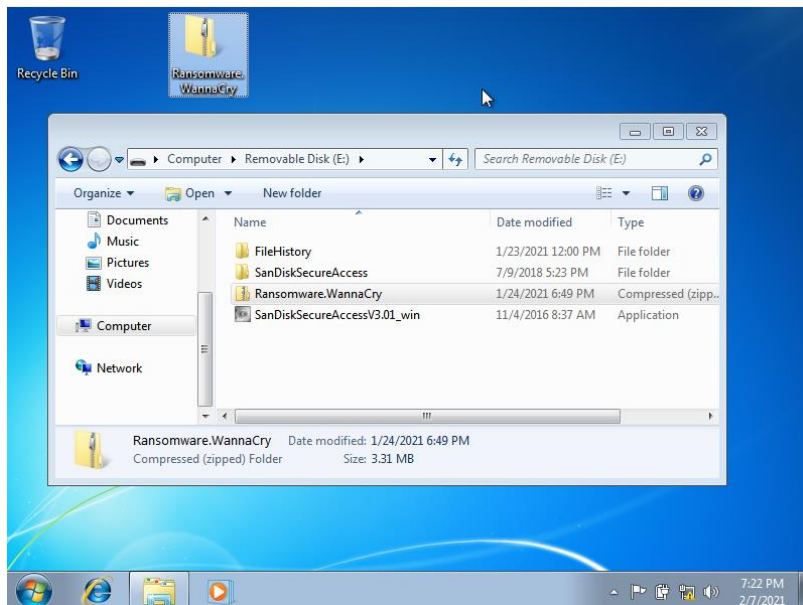


Uploading WannaCry onto VM

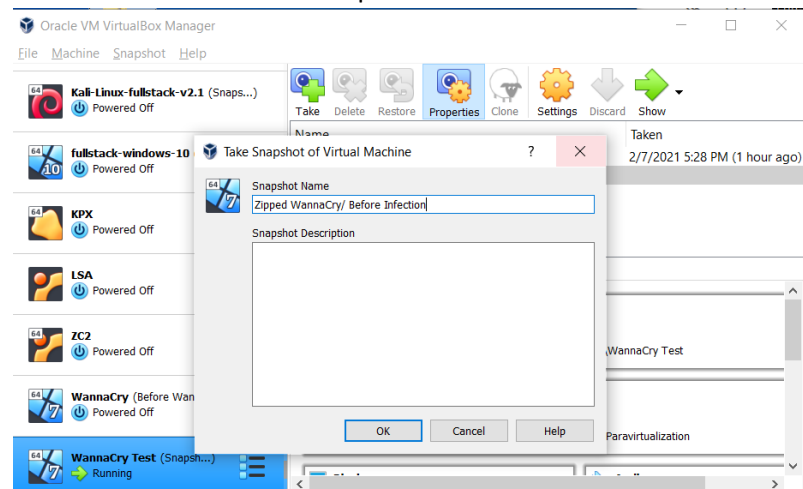
- On your VirtualBox Windows, Click on Devices and select your USB drive



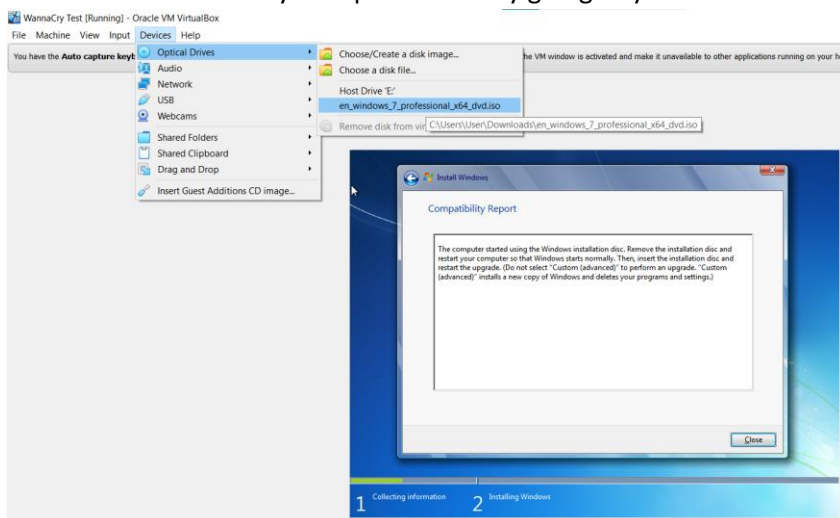
- Go to your Removable Disk Drive and drag zipped Ransomware.WannaCry file onto VM's Desktop



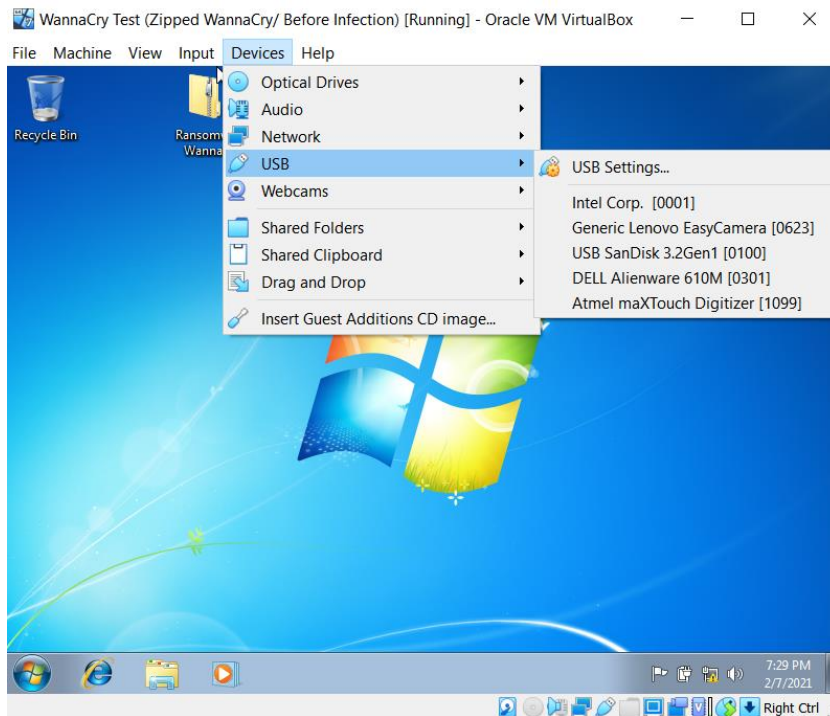
- Close Window and take a Snapshot and name it



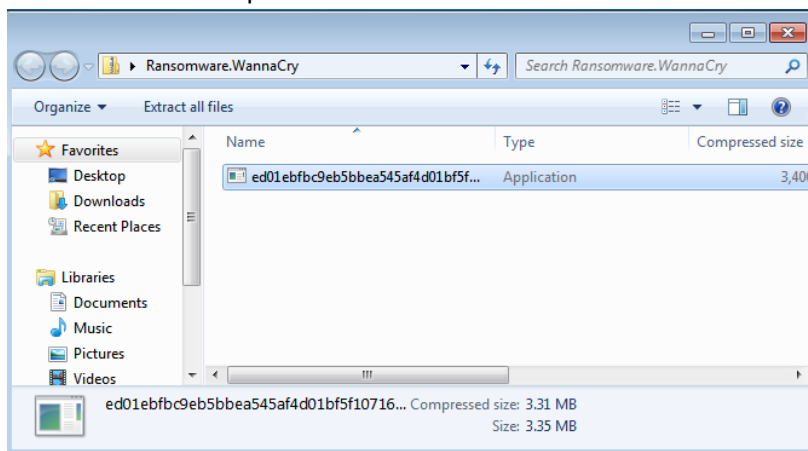
- Make sure to deselect your optical drive by going to your VM > Devices



- Go to Devices and make sure no devices are connected onto your VM



- Double click zipped Ransomware Folder
- Double click on compressed file



- Password: infected



- Select Yes



- Take a screenshot

Reminders

- On your host machine, delete the recent download, and reverse security changes so both your browsers and Windows Security are back to its default settings

