班級: 電子三丙 姓名: 游鎮遠 學號: 107360734
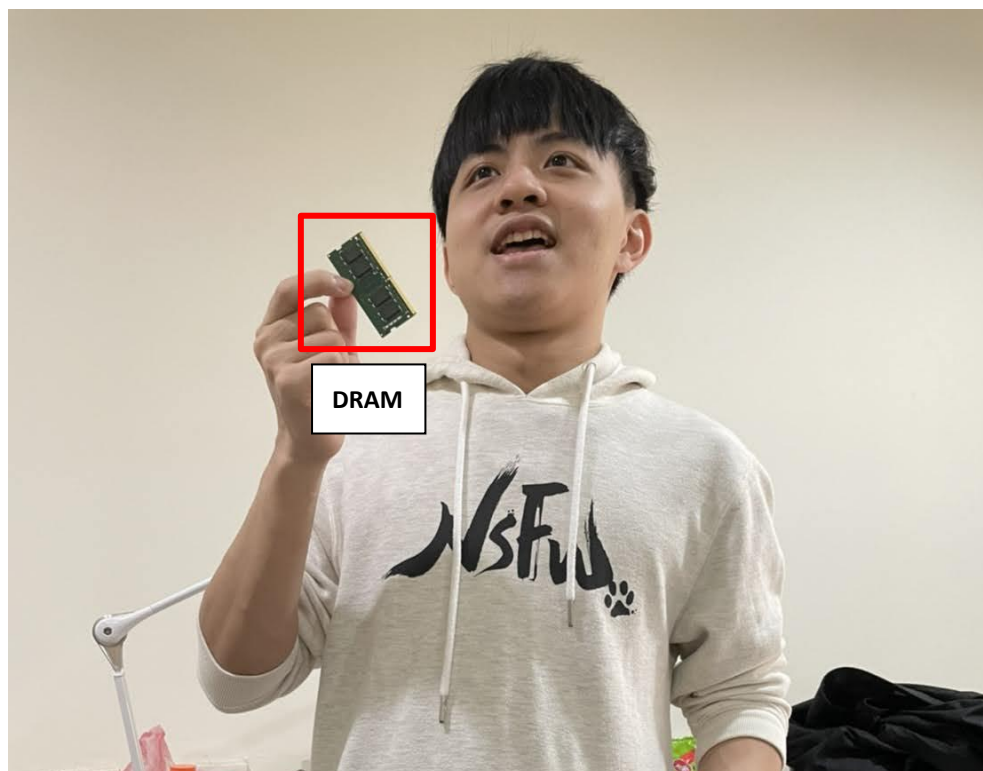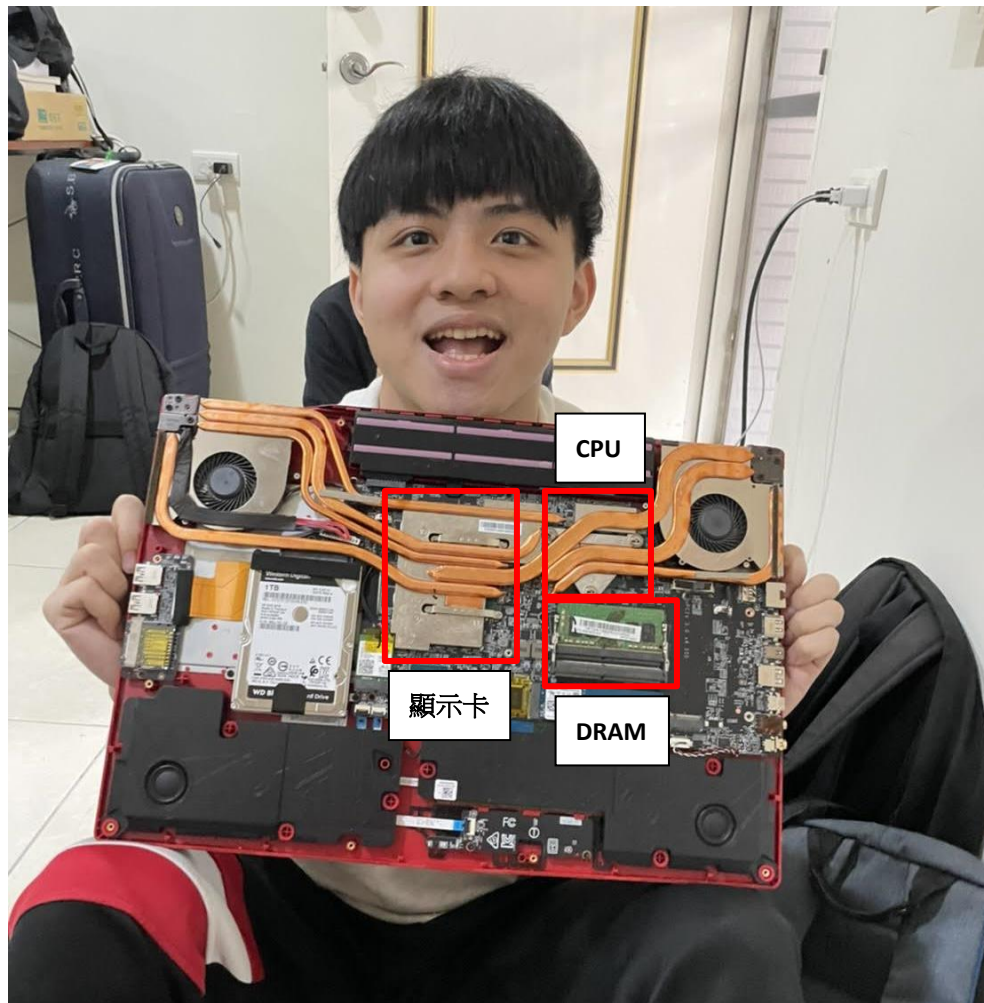
1. Bravely and carefully discover your PC or Notebook computer (NB), and find out its specifications of CPU, DRAMS, HD, and DVD driver, then compared to your smartphone, in terms of as follows.
    You need to _take some pictures_ of your PC/NB _with yourself_, including the external/internal and CPU/DRAM views (opening the iron cover of PC).

Items	My PC/NB	My Smart Phone
1. Device Brand/Type	MSI GL73 8SE	HTC U12+
2. CPU Type	Intel 八代 Core i7-8750H	Qualcomm Snapdragon 845
3. CPU Clocks (GHz)	2.2-4.1 GHz	1.7-2.8 GHz
4. CPU core/thread	6 cores/12 threads	8 cores
5. CPU Cache (MB)	9 MB	2 MB
6. DRAM (GB)	16 GB	6 GB
7. Hard Disk (TB)	512GB SSD, 1TB HDD 7200RPM	128 GB
8. VGA card	Intel UHD Graphics 630, NVIDIA GeForce RTX 2060	
9. DVD driver		

（圖一）我與我的 DRAM

（圖二）我與我的筆電

2. Try to repeatedly connect the Web Site "FM 99.7" (台北愛樂) or some media web (like YouTube) over the Internet until your PC/NB *shuts down* finally. Then *count* how many "FM 99.7 sites" (or YouTube) was connected.
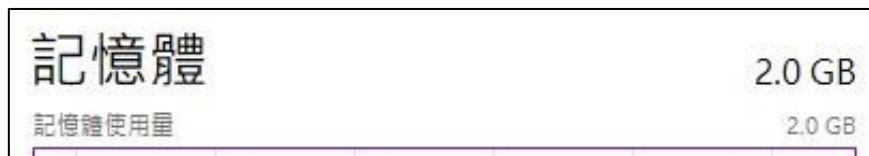
In Exp.-1, your PC/NB is with *full* DRAMs on the motherboard, and then use *half* DRAMs in Exp.-2. *Take some pictures* of the LCD screen on your PC/NB to showing the *work* and *frozen* status of the LCD screen in the two experiments, respectively.

Remind that you first must turn off your PC/NB, and then remove or plug the DRAMs from or into the specified bank on the motherboard.

Items	Exp.-1	Exp.-2
1. My OS version	MS Windows 10 (on virtual machine)	MS Windows 10 (on virtual machine)
2. DRAMs in total (GB)	2 GB	1 GB
3. DRAMs available for Applications (GB)	2 GB	1 GB
4. (a) DRAM occupied by FM 99.7/YT (MB)	447.1MB	322.7MB
5. (b) No. of FM 99.7 /YT sites be opening	269	179
6. (a / b) in MB/Application	1.662	1.802

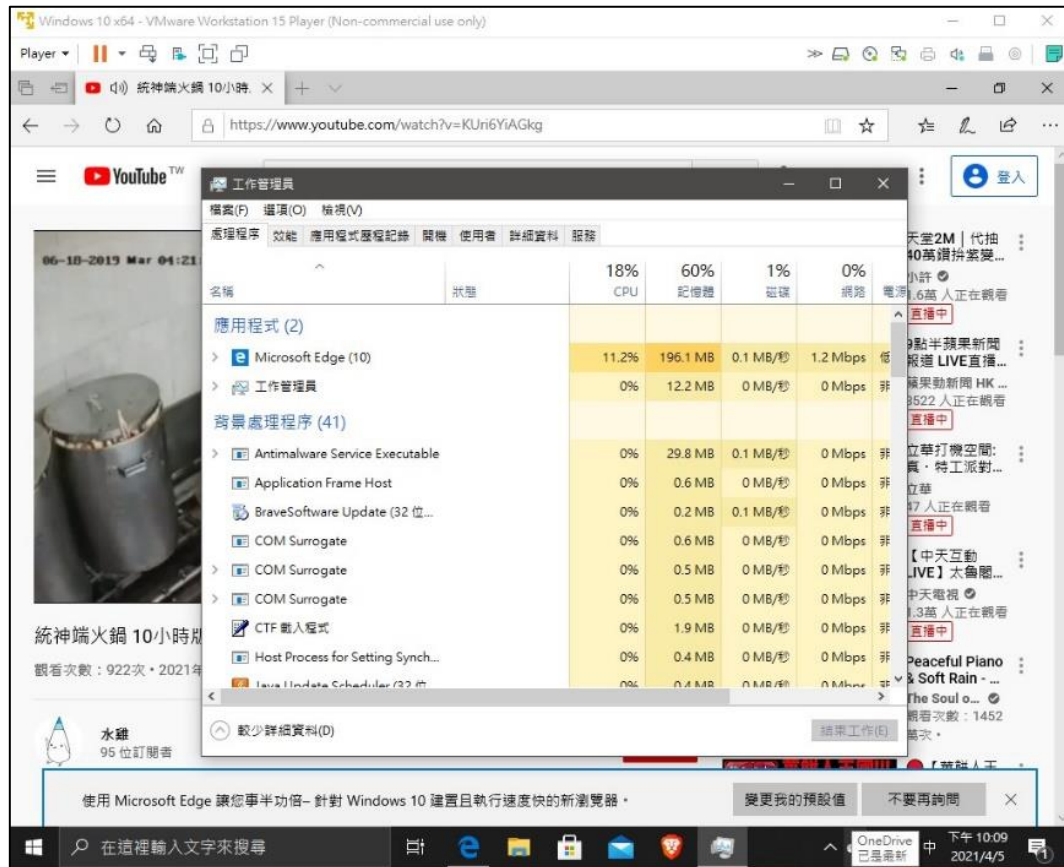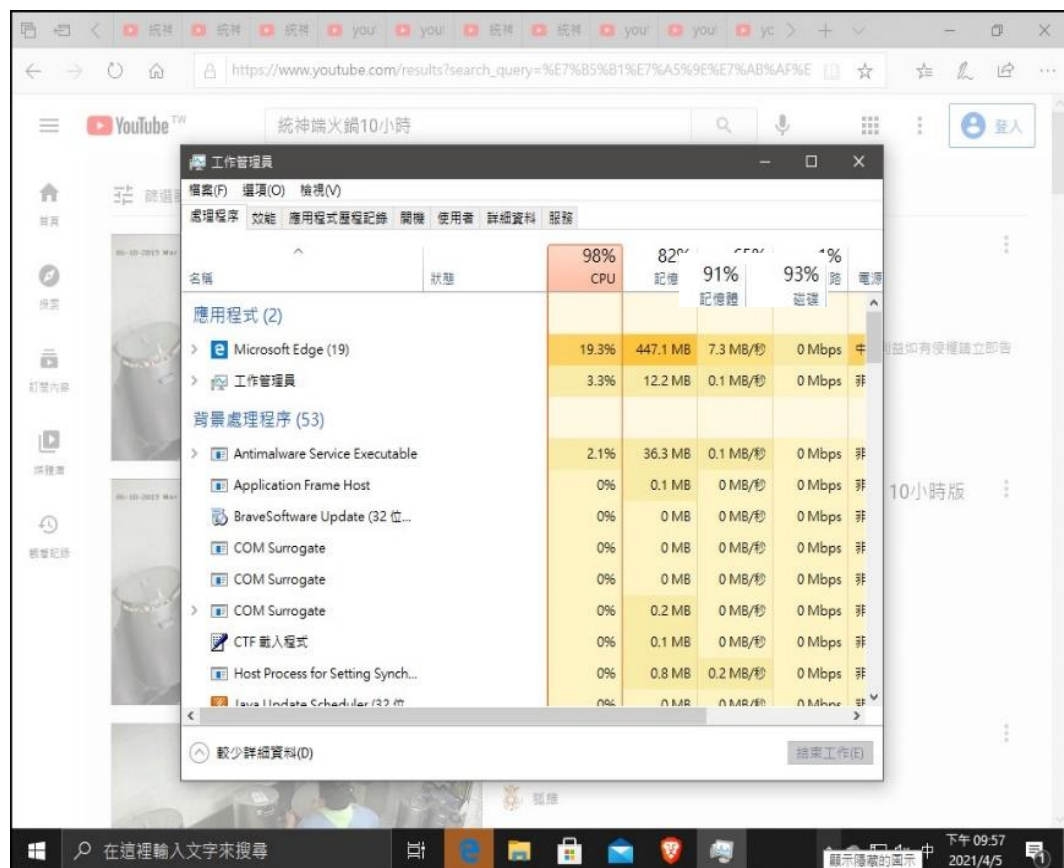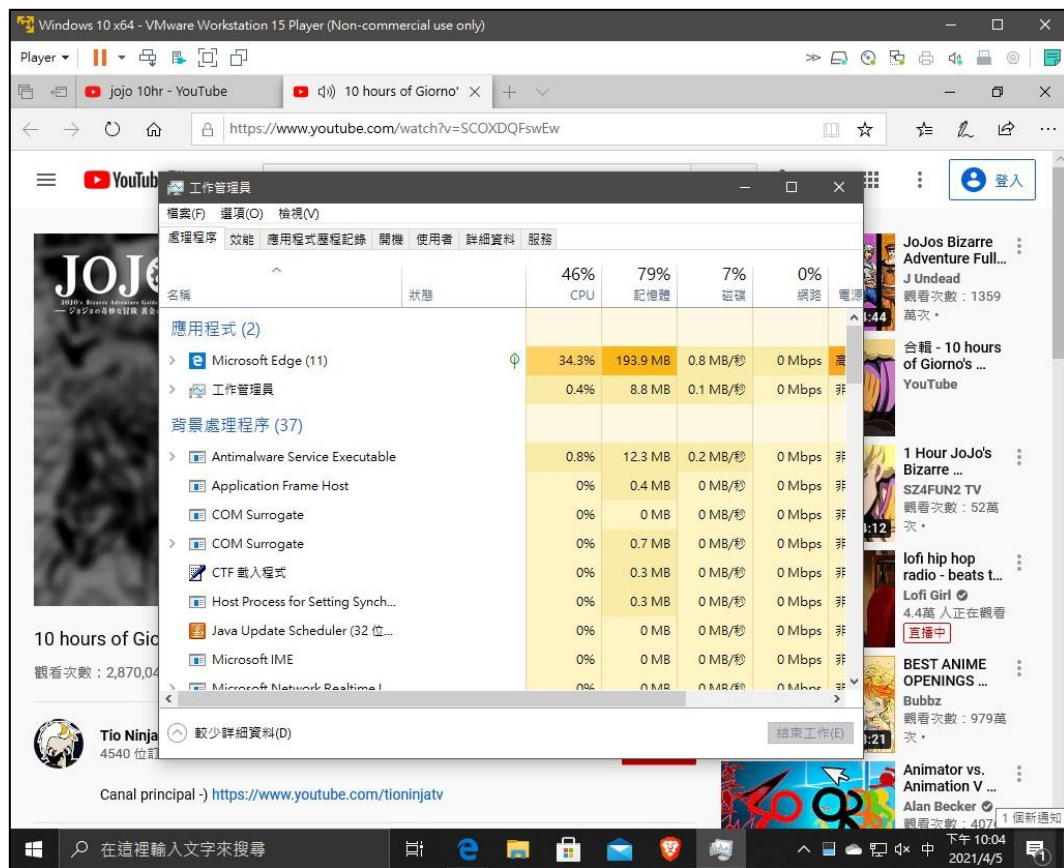（圖三）VMware 虛擬機

（圖四）使用虛擬機模擬 2GB 記憶體

（圖五）使用虛擬機模擬 1GB 記憶體

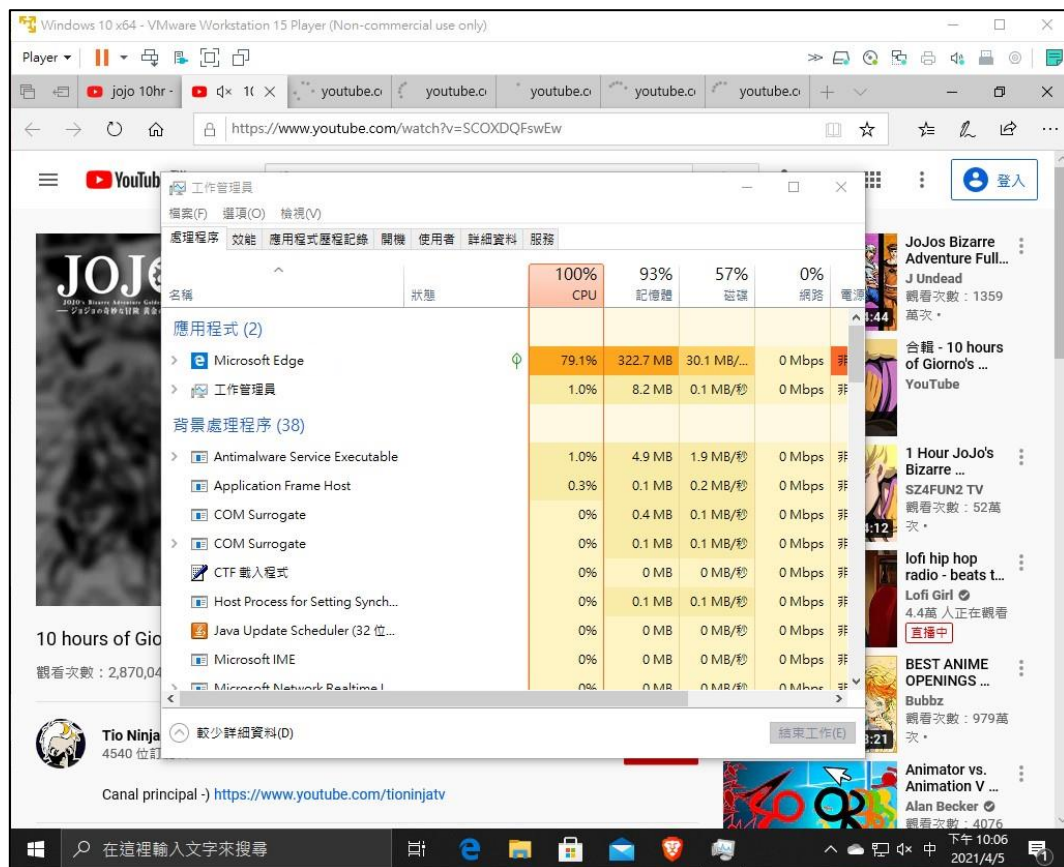（圖六）使用 2GB 記憶體 未當機畫面

（圖七）使用 2GB 記憶體 當機畫面

（圖八）使用 1GB 記憶體 未當機畫面

（圖九）使用 1GB 記憶體 當機畫面

3. 心得

　　這次的作業，老師要求我們拆開自己的電腦，原本我是很猶豫，因為自己從來沒拆過電腦，但還好在同學的幫忙與指導下，順利且「沒有弄壞」地拆開了它，還順便加裝了一張 8GB 的記憶體。也因為這次的機會，才第一次看到的我的筆電裡的樣子，包括散熱銅管的配置等等，覺得很新奇。

　　另外還有，這次的作業也有要將電腦操至當機的要求，但現今的電腦不管是效能，或是記憶體的大小都非常難將之當機，所以我透過虛擬機模擬較小的記憶體，再搭配微軟的 edge 瀏覽器（chrome 在 2015 年之後就不提供關閉記憶體回收），好不容易才出現要求的效果，真的很有成就感。

Due date: April 8 (Thu.), 2021.