Many if not all know that a computer system has played a big role in the modernization of our society. Computers are capable of doing things that a mere human being can’t. The fact that a computer is so powerful comes the fact that parts of it are doing a great job also. Considering all the devices that made up the computer it gave me the difficulty in understanding how it was made starting from its core. Without enough knowledge about how a computer was made and how it works, locating problems on a computer is hard. As I continue pursuing computer engineering I learned all about computers. The things I have difficulty understanding before slowly became clear to me. On our subject code CPE 421, it talks about troubleshooting parts of a computer. Troubleshooting for me is the process of locating errors and doing something to fix it. As a computer engineering student, I found it very helpful and essential for I can use it in my field and I became more knowledgeable about computers which are a must for everyone taking a course like mine. Personally, I admit that there are still things about a computer that I am not yet oriented. I still lack skills but learning is a continuous process and I’m learning every single day.

I have learned how to troubleshoot about printers, computer mouse, computer speaker, plotter, SCSI( Small Computer System Interface ), video card, RAM( Random Access Memory )/ memory, hard disk drive, power supply, NIC( Network Interface Card, motherboard, and microprocessors.

Common problems of a printer are the failure in printing, the printer is too slow, printed text on printer looks lousy, inkjet’s photos look lousy, and the printer always gets a lot of paper jams. I have learned to consider all these problems on a printer and also maintaining it’s good condition. To maintain the good condition of printer one must clean its insides, check everything under its hood, choose the right refill, download latest drivers, keeping manual printer safe and using it regularly. With regards to the computer mouse, troubles are related to its port connection, driver, trackball or a trackball unit, and the operation of the mouse buttons. In computer speaker, to diagnose and fix problems one must understand how speaker works, know what is likely to fail, make sure that all connections are plugged, check the speaker’s volume, make sure that headphones are not connected when using it, try to restart the computer and try to address software problems. When it comes to the plotter, common problems are about a dead print head, poor stacking and paper jams, software compatibility and plotter is out of memory. SCSI’s troubles are about the host adapter not recognized by the workstation, one device not found, and there are errors in its intermittent lockups and communication. Symptoms of faulty video card are crashes on the computer, about its artifact, black screen, the text is scrambled or appears distorted and the display shows random black, white, or partial colored blocks. Fixes involve updating its drivers, cooling it down, checking the video cable, checking its monitor and replacing its card. The memory or RAM’s problems are when the computer fails to boot, computer boots up with a blank screen, the computer hangs and reboot, short beeps, and all memory not recognized. I have also learned about troubleshooting hard disk drive. Common problems about it include corrupted files, computer viruses, manufacturing fault, heat, failure in detecting hard disk or BIOS, unexpected computer crashes, and human errors. Tips to maintaining it are installing software that applies only to business operations, updating the operating system, removing unnecessary programs, maintaining computer security and utilizing power save and sleep modes. The troubleshooting of power supply is also done by checking the light of the motherboard and checking if the cord in it is plugged in. Checking errors in NIC or Network Interface Card includes checking whether the NIC is really the problem, checking the internet connection, testing the hardware and testing the software. Troubleshooting the motherboard is done by removing components on it that is not required for its basic operation and then starting the computer. If no faults were found on the components the computer may have a loss of power or virus. Another way of checking is through diagnostic software. A good way of maintaining the motherboard is by cleaning the motherboard using a can of compressed air to blow away the dust. Aside from all those components, I have also learned to check the processor on a test computer. It is done by disconnecting the power cord from both computers. Remove the heatsink and processor from the computer that you suspect that has a dead processor. Remove also the processor and heatsink from the test computer. Attach the processor and heatsink to the second test computer which uses the same type of processor and reconnect the power cord. If the computer will not boot to BIOS or gives the same beep sequence, it is very likely that the CPU is dead. These steps that I have learned in troubleshooting different parts of a computer will be a great help if I met future problems with computers.

I was also oriented about advance PC software configuration troubleshooting and data recovery. It talks about the windows file system, hard disk management and configuration, operating system installations and upgrades, hardware device driver installation, software installation, and virus management. Our group was assigned in searching facts about the windows file system that is why I am more acquainted to the windows file system. It talks about FAT(File Allocation Table), NTFS(New Technology File System), types of file system, file system care, checking the drive for errors and supported file system of the different version of Microsoft Windows.

I am very grateful to have encountered a subject like troubleshooting. I am also grateful to our instructors who taught us this subject. Learning how to check for errors and knowing how to solve it gave me an edge as an engineering student. I am looking forward to more learnings to come and more facts to be absorbed.