

**TASK3 [1.3, P3, M1]**

## 2.2.4.




Desktop PC		These are computer that sits on top of desk so called desktop. These are personal computers and have separated input, output and processing Units.
Laptops, Notebook, Netbooks		These are portable computers that have integrated keyboard and display. Size and performance of these computers varies.
Smartphones, Handhelds		These computers have no keyboards but have sensitive display that acts as both input and output.

Table 1Micro Computers

## 3.2.MAC OS X:

This OS is developed by Apple Inc. and 2<sup>nd</sup> most famous operating system. It has very appealing interface with many programs that integrate tightly into the system.

Features: This operating system runs only on Macintosh Computers. Many specific programs are developed for this operating system. Software that runs on other operating system generally does not support Mac but nowadays this issue is being reduced as manufacturer developing mac version of application. Also, wine for mac can make mac run the windows based applications (fig10). Like windows, Mac is also close-source operating system.

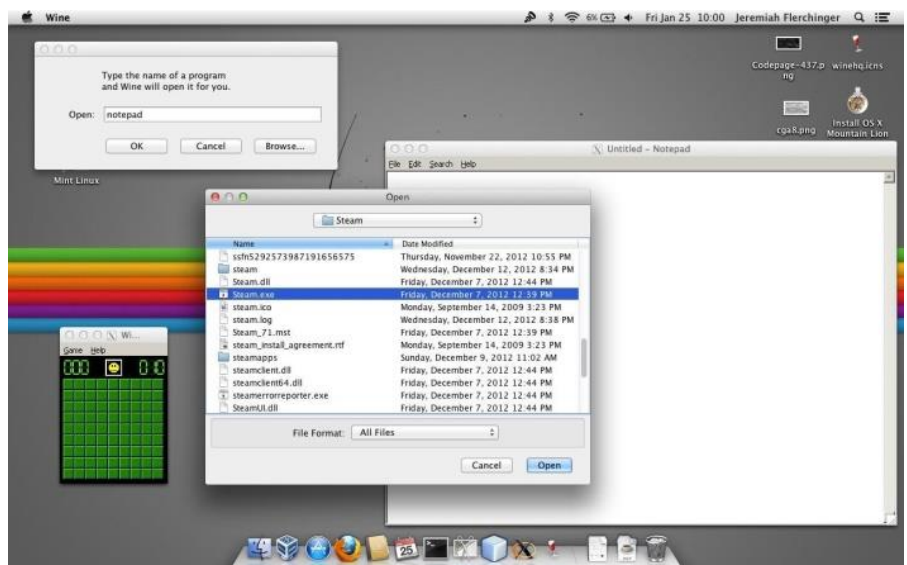


Figure 10 Wine for MAC running windows based application

### 3.3.LINUX:

Other operating system I am going to take for comparisons is LINUX. Term Linux is generally used for collection of Linux DISTROS (distribution).

Features: Its popular OS for server but desktop based system is also getting popularity mainly due to the fact that these are open-source operating system. Hence operating system and software are free of cost and free to modify and distribute. Generally it doesn't run software developed for windows but software like wine can help to run many windows based software on LINUX. Fig11, is screenshot that demonstrates how wine enables LINUX operating system to run windows application like Cam Studio recorder.

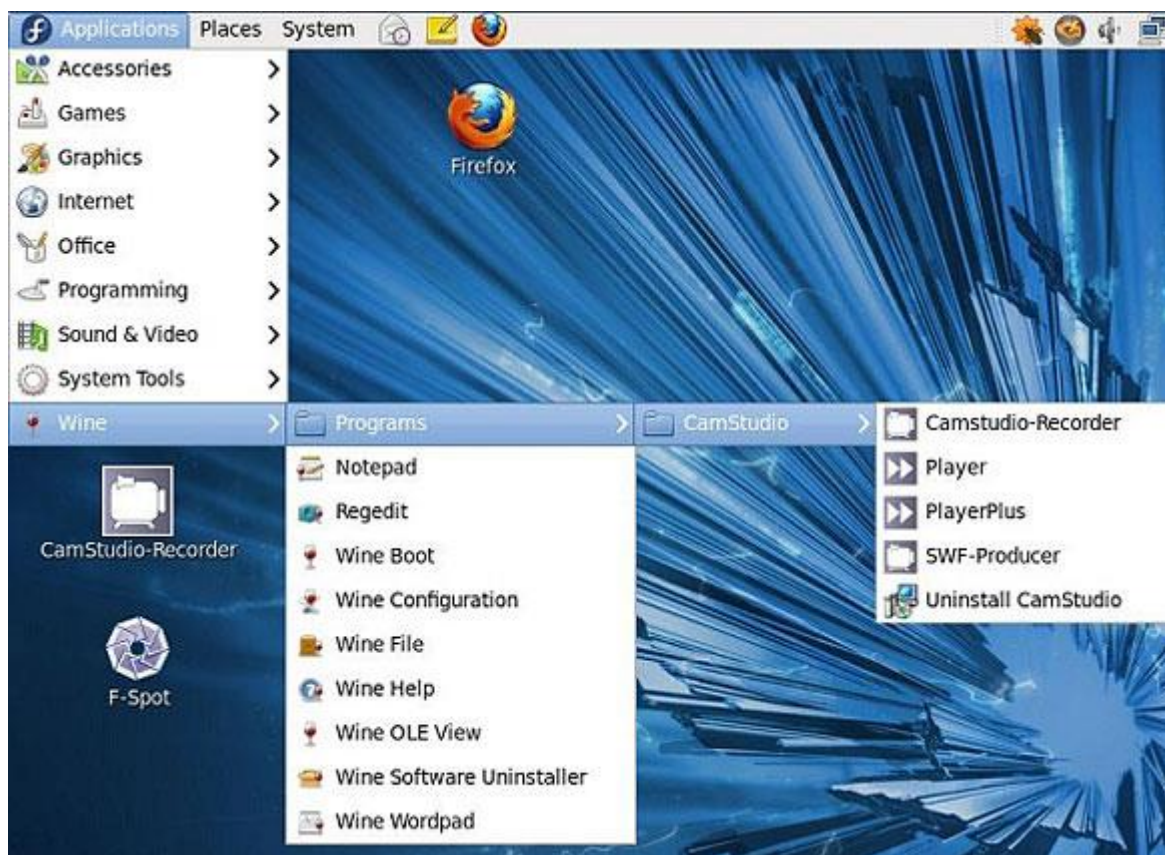


Figure 11 Wine to run Windows application on LINUX

Below in this report I have discussed the comparisons between three different operating system based of some of key features, Pros., and Cons.

#### 1.1.Device driver:

Again here windows have upper hand. Hardware manufacturer generally develop device driver for windows due to their popularity. Similarly, Linux also supports large number of hardware but not as much as hardware supported by windows. On the other hand, Mac does not have very large number

of hardware support although they can support hardware from many manufacturers. For example (fig12), mac does not support latest graphics card from NVidia, manufacturers haven't developed driver for mac coz they do not support latest games that needs latest graphics cards.

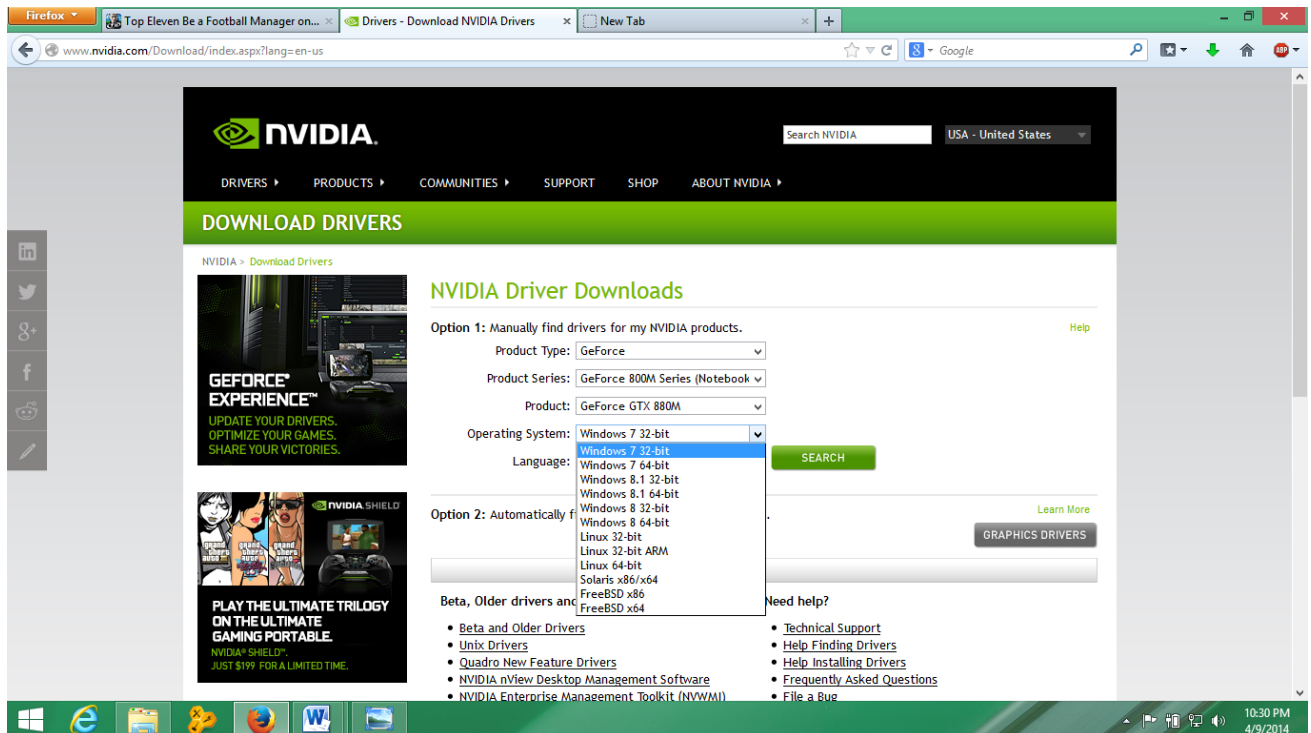


Figure 12 NVIDIA GeForce 800M does not have MAC support

## 5. Conclusion:

In this report, I compared three most popular operating systems available for computers. Then I discussed about which OS is more appropriate for both home and business users. Each operating system has own features, strength and weaknesses. We found Linux is very reliable operating system due to its free cost, virus free environment and stability, however it's less popular among their counterparts may be due to less software support and complexity among general users. Similarly Mac PC is famous but has many issues like hardware and software and software compatibility. But still user prefers them due to their great looks and services.

Windows Operating system found to be best operating system due to their features, services and familiarity among users. They support large number of software and hardware and excellent for both home and business use. Being said that it's all up to user's preference they may find mac or Linux more appropriate for their needs.

**TASK 6 [3.1, P6, D2]****1. Work Place Setup**

Before starting to build and configure computer system, setting up the work place is essential to insure better health safety and better work environment.

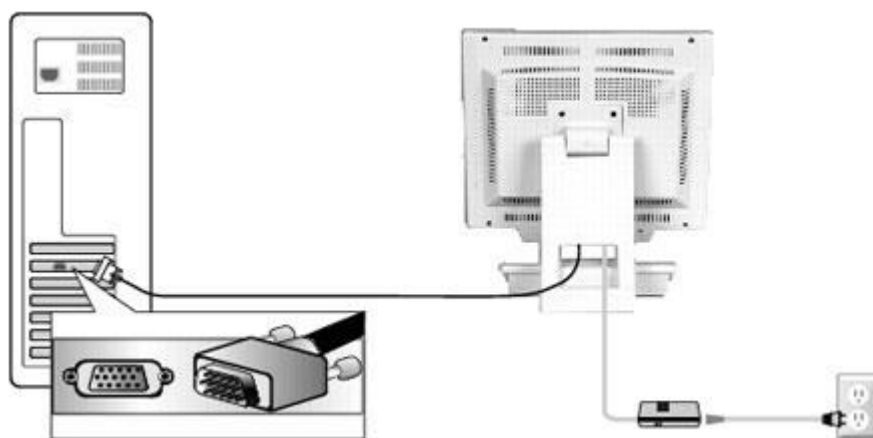
- i. Wear anti-static wrist strap
- ii. Place your computer on a rubber mat or other non-conductive surface.
- iii. Have 1 plus and 1 minus screw driver.
- iv. One small magnet to collect the screw

**2. Connect and Setup****Monitor**

Monitor used: Dell 17 inch LED

To **connect Monitor** I carried out following steps.

- a. **Setup** space for placing computer and Monitor
- b. Place **Monitor** on table and turn the monitor **back panel** side.
- c. In back panel, feed **power cable** and **SVGA/HDMI/DVI** cable.
- d. Connect **power cable** to power supply. Make sure of proper grounding.(Figure1)
- e. Connect video cable to computer.
- f. Press **power** button **ON**.
- g. **Start** computer.
- h. **Adjust** resolution, brightness and display setting. **Finish**.



**Figure 1 MONITOR CONNECTION**

## Printer

Printer Used: HP office Jet Pro L7700

- Place printer from where USB cable can reach the computer.
- Download HP Printer install Wizard for windows from HP's official site.
- Run the program. **(Figure3)**
- Now grab the USB A to B cable and feed (B) end to printer and (A) end to computer. **(Figure2)**
- Click Next on Wizard program. Let the scan process end. **(Figure4)**
- Select the printer and click next.
- Let the driver download finish.
- After completing wizard to view the newly installed printer go to control panel then Hardware and sound and select Devices and printers. **(Figure 5)**
- There is New HP office Jet Pro L7700 printer listed. Set it as default if needed.
- Finish.

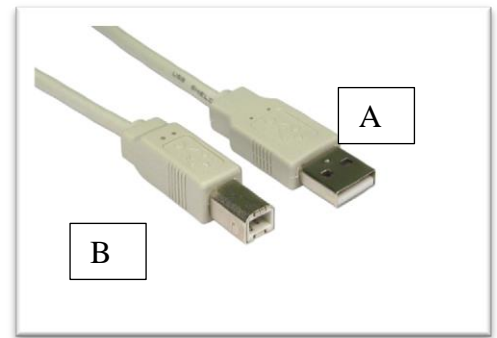


Figure 2 USB A to B cable

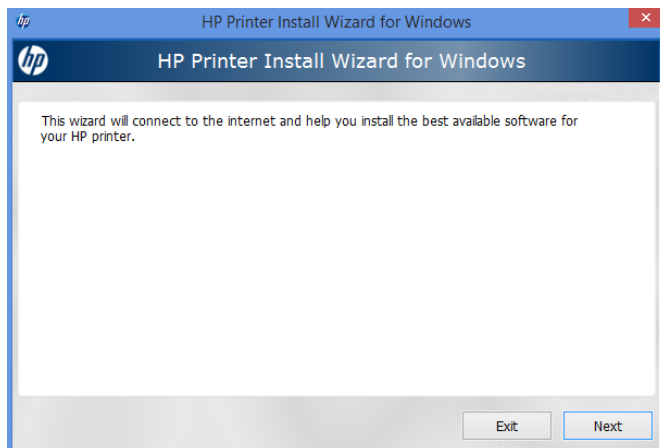


Figure 3 Devices and Printers

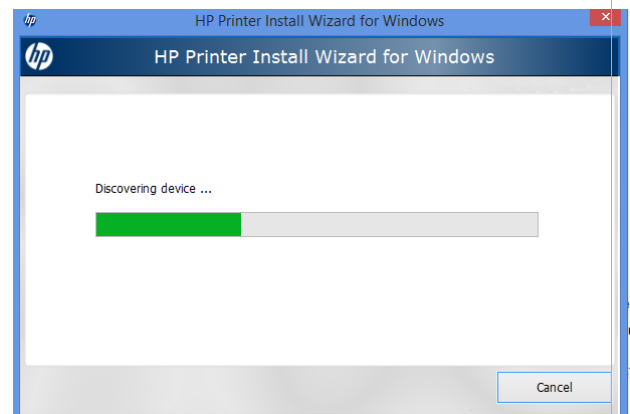


Figure 4 Devices Scan

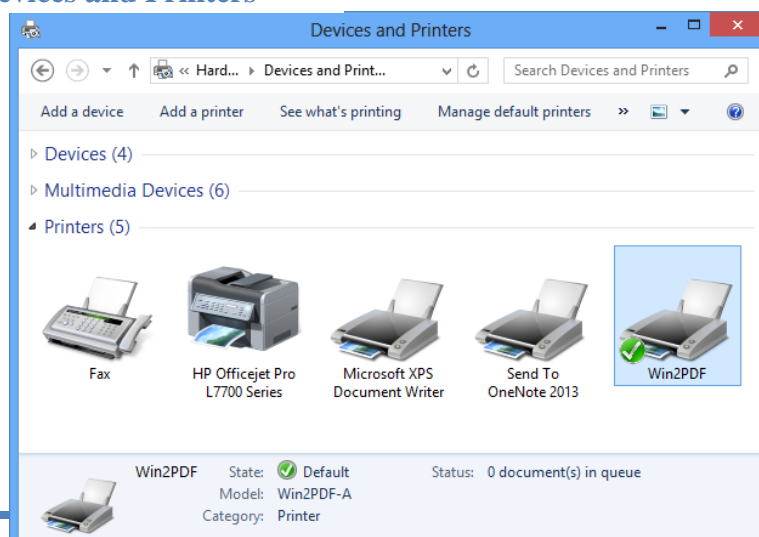


Figure 5 HP Printer Install



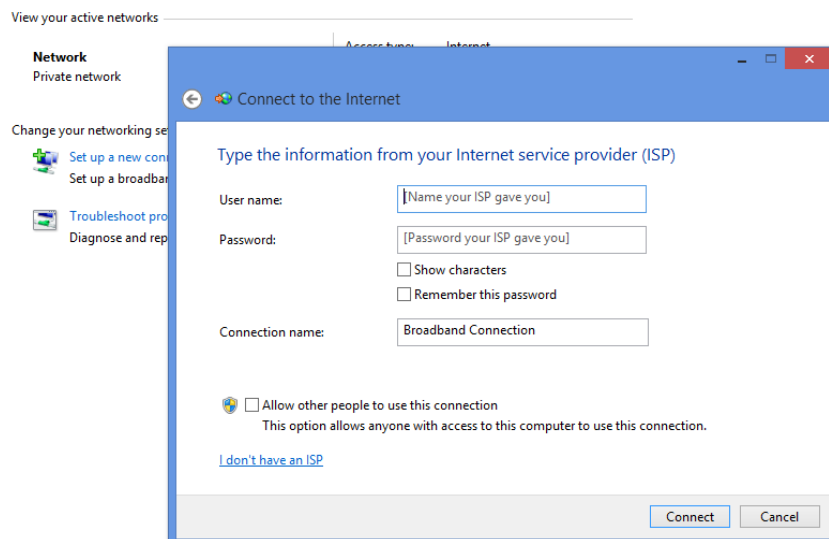
Modem/Router

Modem used: NETGEAR ADSL modem DM 602

- Make sure Computer has RJ45 Port either inbuilt or NIC card.
- TCP/IP networking installed
- Ethernet Patch cable.
- Connect the modem to computer using USB or Ethernet cable. Connect **power supply**.
- Connect cable from ISP provider to modem using **RJ45**. (Figure 6)
- Install modem driver from provided CD/DVD.
- Complete the PPPoE **authentication** process. Provide login name, password, and service name in **setup new connection or network** under **control panel**. (Figure 7)



**Figure 6 Ethernet Cable with RJ45**



**Figure 7 ISP LOGIN**

- Open any web browser and type **192.168.0.1** and login into modem setup page using username and password. Default admin/public
- Select **yes** to 'Does your internet connection requirement'.
- Provide **login** credential.
- Restart** computer.

Speaker

Speaker Used: 2.0 Stereo Dell Speakers

- Place the **speaker** on suitable place. Make sure cable is large enough to connect to computer.
- Grab the 1/8" jack (Figure 8) and **feed** it into **line out (speaker)** port either **front panel** or **back**

panel.

(Figure 9)

- c. **Connect the Power supply. Press On**
- d. Manage sound level using wheel on speaker or from computer.



Figure 8 Speaker and 1/8 jack

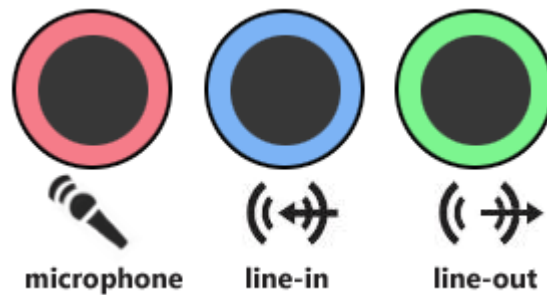


Figure 9 Audio I/O panel

### 3. Hardware Component Installation

#### Graphics Card

To install PCIe Graphics card I performed following steps.

- a. **Manage** the workplace as mentioned above in this report.
- b. **Unplug** and then Open the computer case and collected the screws using magnet.
- c. After opening the case, Search for **PCIe slot** in the motherboard to ensure it supported the card to be installed. There was X16 size slot which is PCIe slot as shown is figure 10.
- d. Open the **back panel** case to install graphics card
- e. Now **align** the video card to the PCI Express slot. Consider the **Notch** position.
- f. **Insert** the card's connector to PCIe slot (Fig.11)
- g. Once card is firmly in the slot connect power cables to the card
- h. Replace the PCI bracket and screw it back down and close the case.

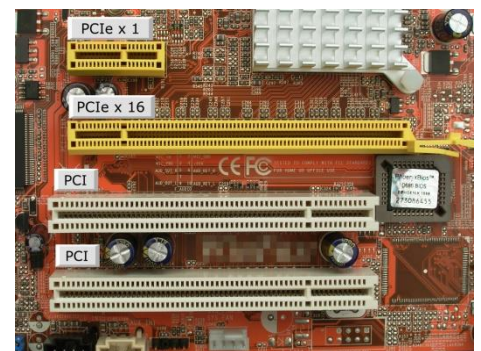


Figure 10 PCIe slot

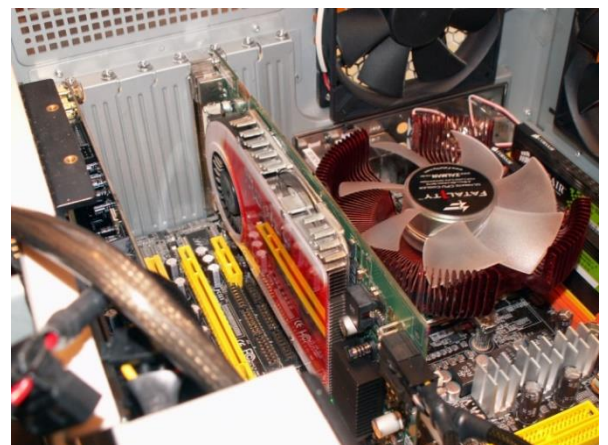


Figure 11 Graphics Card Installation

- i. Plug it to **power source**.
- j. Now Startup the computer.
- k. To **install the driver**, if there is driver CD, insert and install the driver.
- l. If there is no driver CD, download it from vendor's site and install it.
- m. Customize the appropriate resolution.
- n. Restart computer. Done

### RAM

To Install RAM I performed following Steps.

- a. First I visited motherboard's manufacturer's website to understand the type of RAM it supports. It was DDR2.
- b. Manage the workplace as mentioned above in this report.
- c. Align the RAM to RAM slot in motherboard.(Fig12)  
Consider the notch position.(fig 13)
- d. Insert the RAM into slot. (fig.14)
- e. Made sure its side clips are locked
- f. Once all other component installed and computer runs press windows + pause break keys to check system properties. Check RAM status is OK.
- g. RAM installation complete.



Figure 12 RAM slot



Figure 13 RAM and Notch

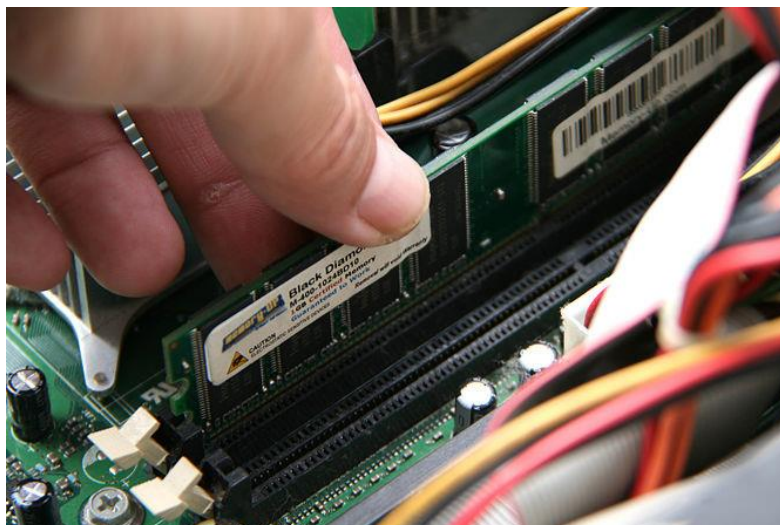


Figure 14 RAM INSTALLATION



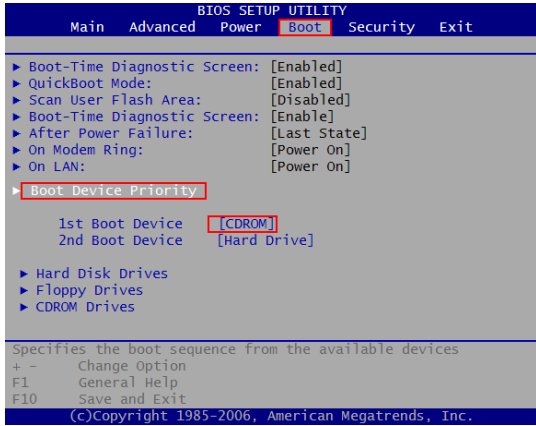
#### 4. Software Installation

##### Windows 8

Windows to be installed: Windows 8

To clean install windows 8 I performed following steps.

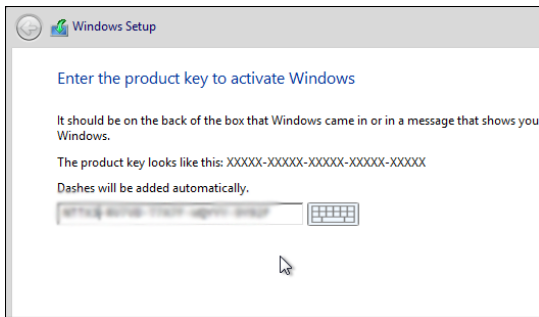
- a. Startup the Computer and Enter to Bios setup page pressing 'Del' key
- b. Under Boot section select first Priority to CD. Press F10 to save and exit
- c. Now insert the bootable Windows 8 DVD into DVD drive and restart computer
- d. Computer will boot from Windows 8 DVD with screen
- e. In the next page set your language, time and currency format, keyboard or input method according to need. (fig.14) Press Next.
- f. In this page click Install Now. Setup process will start.
- g. In the next page enter the product key came with windows 8 DVD as shown in Fig's. Press Next
- h. In this page Tick the accept license box and click next
- i. Since we are doing clean installation, in this page select custom installation
- j. Choose the Drive where windows to be installed. To create new partition click new and set the size. Fig.
- k. Click on Apply, Ok then select the partition and click next.
- l. Now Installation Process will start (Fig.) and computer will restart automatically once installation is done.
- m. Once computer start following page with few messages will start up. Fig.
- n. In the next page Set PC name and color as shown in fig.
- o. Next page allows setting customization; here I went with use express setting.
- p. In the next page select appropriate account. Either create local account or choose Microsoft account. This account will be used for login into the PC. Fig.
- q. To create local account select local account and in the following page give account name and password.
- r. Press FINISH.
- s. Now setup will finalize the installation automatically. This will take few minutes.
- t. Once these process finish, installation complete and presented with metro user interface.
- u. Windows 8 is installed.



### Step 1



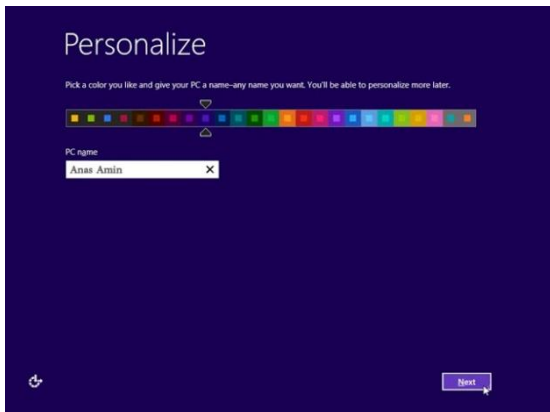
## Step 2



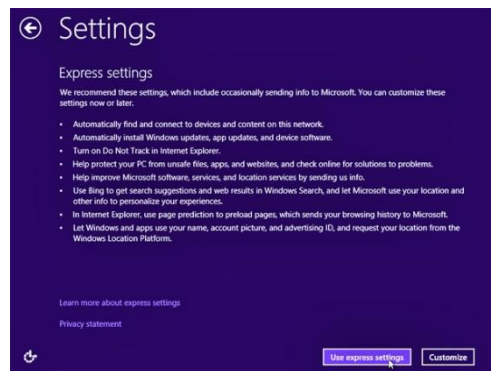
### Step 3



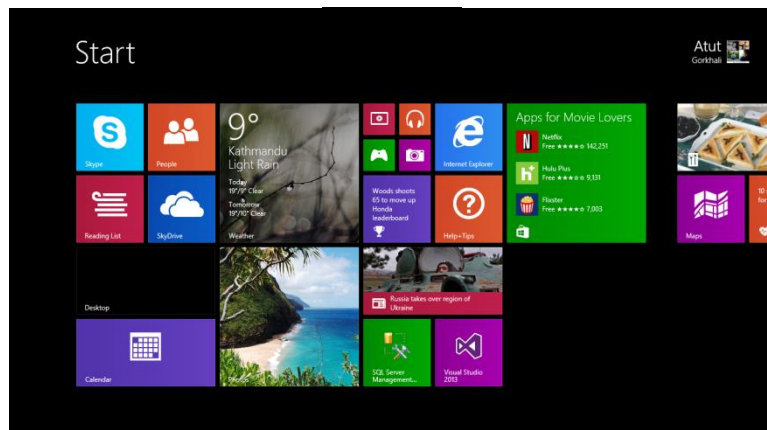
### Step 4



### Step 5



### Step 6

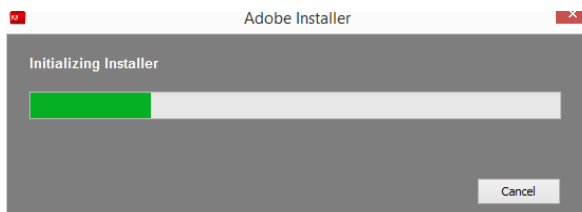


## Step 7

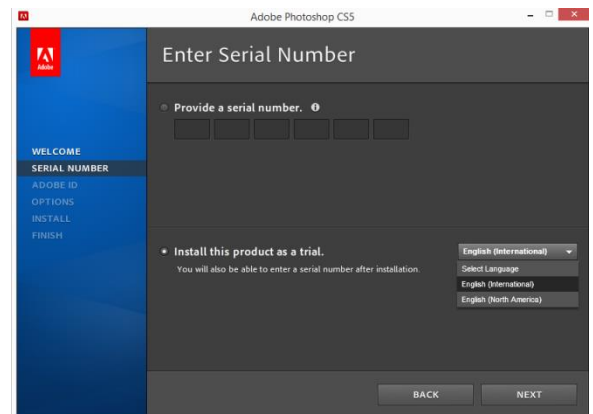
Adobe Photoshop

To install Photoshop CS5 perform following Steps.

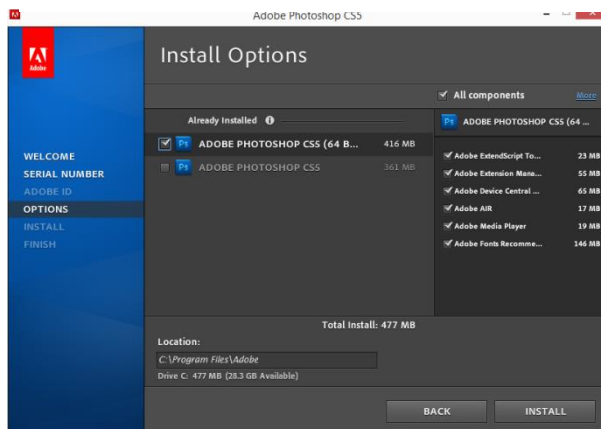
- Insert the DVD into optical drive. Explore the Drive and double click Setup.exe
- Once the installation initialization finishes, in the next page click 'Accept' to accept the license agreement.
- In the next page, Provide the serial Number came along with Photoshop DVD. Alternatively there is trial option too.
- Select the language and click next.
- In this page, select required components. Click Install.
- Once Installation complete, click done.
- Photoshop cs5 is installed.



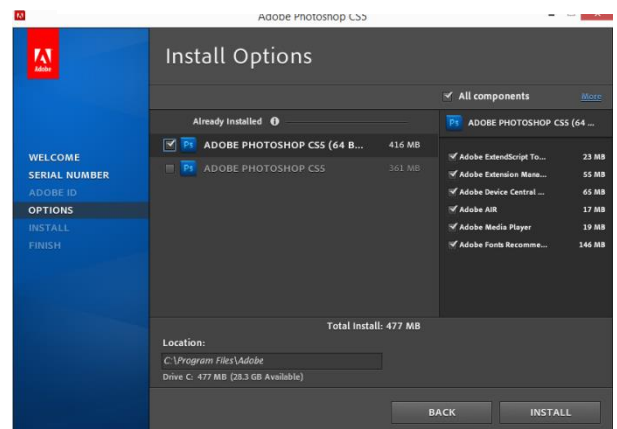
Step 1



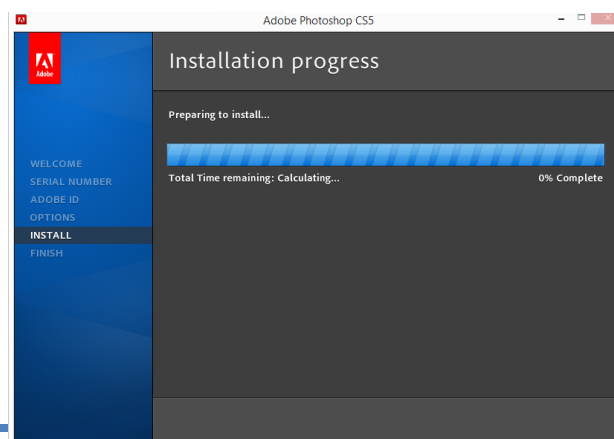
Step 2



Step 3



Step 4

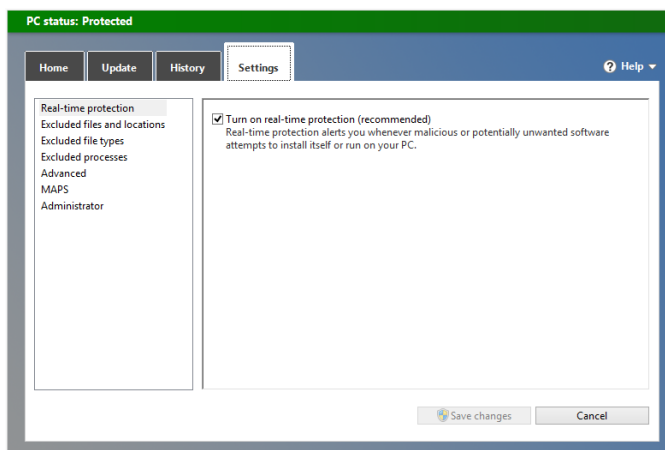


Step 5

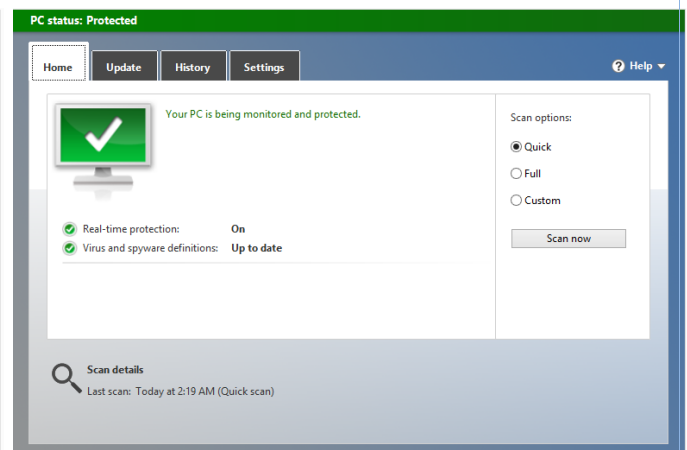
### Configure Windows Defender

Windows Defender is pre-installed anti-spy/malware in windows 7 and later versions. It prevents viruses if regularly updated and properly configured. To configure windows defender, proceed following steps.

- (In windows 8) In the start Menu type 'defender' and select 'windows defender' from the list.
- Once the windows defender starts go to setting tab by clicking on it.
- In the option Real-time protection, tick the Turn on tick box.
- In the administrative option tick the Turn on tick box.
- Leave the other options to default and click Save changes, if required click ok to authenticate.
- Now under Update tab, click update to update virus and spyware definitions.
- Once the update complete windows defender configuration is complete and windows is safe from viruses.



**Step1**



**Step2**

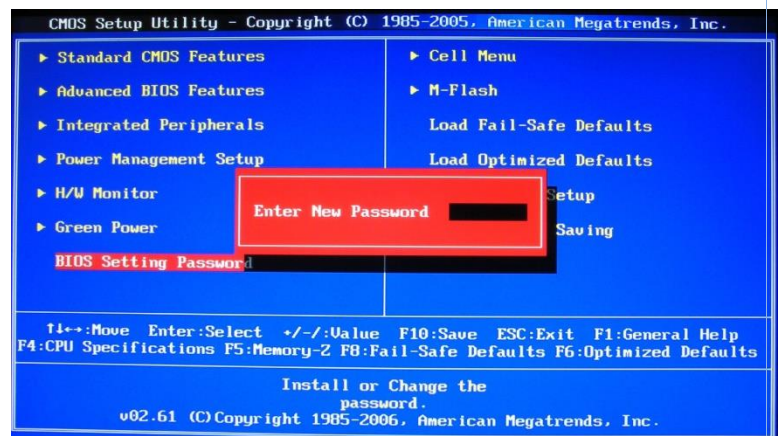
### **5. Settings According to Mike**

#### **Hargreaves requirements:**

#### **Set Bios Password (TO MrABC)**

To perform bios password setup I performed following steps.

- Start the computer and go to bios setup pressing Del key.
- Select Bios setting password option (as shown in fig. 15)



**Figure 15 Bios Password Setting**

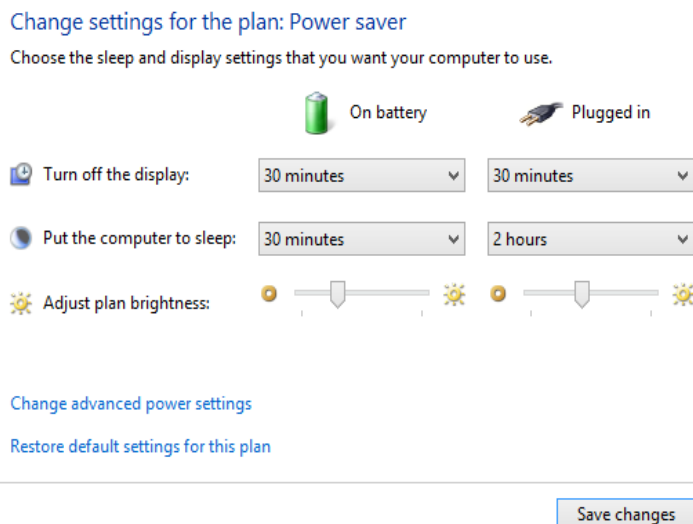


- c. Set password to MrABC
- d. Press f10 to save the password and exit.
- e. Done.

#### Power Management turn off display (after 30 min) when away

Perform the following steps to Configure Power management.

- a. (In windows 8) In search menu, type power option and select power option.
- b. Under power option page, click change power setting of the plan that is to be used.
- c. In this page, set turn of display time to 30 minute (Fig. 16).
- d. Click save changes. Done

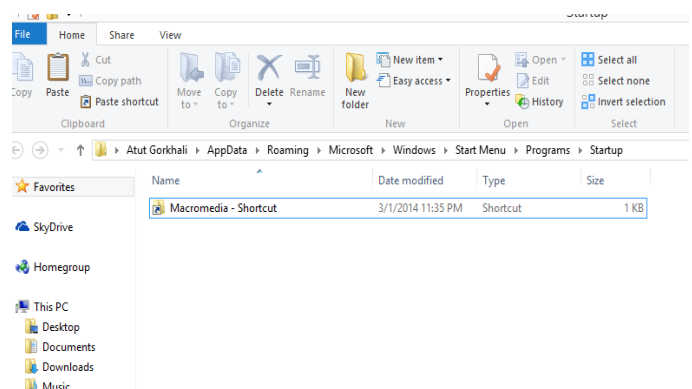


**Figure 16 Power Management**

#### Startup option: load Macromedia Suite folder

To load Macromedia suite Folder automatically after the windows startup, a shortcut of macromedia folder is need to be places inside startup folder. Perform following process.

- a. (In windows 8) Press windows + R key to open run menu.
- b. Type Shell: STARTUP
- c. Now inside startup folder right click and select new then shortcut.
- d. Now browse the Macromedia folder location and click next.
- e. Once the shortcut is created, setting is done



**Figure 17 Macromedia Folder Shortcuts**

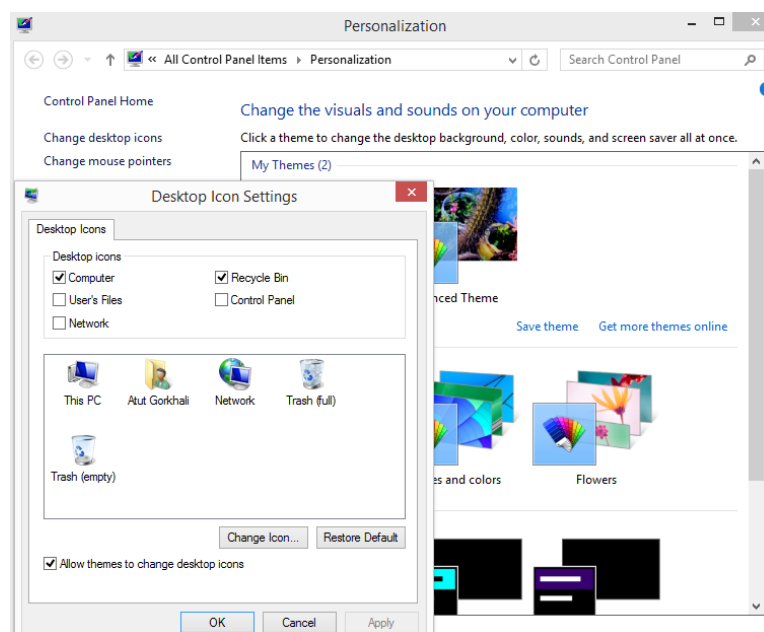
(Figure 17).

- f. Every time windows starts, Macromedia folder will AutoOpen.

#### Edit Desktop Setting: Display “My Computers” on desktop

To Display ‘My Computer’ Desktop performs following steps. (Based on Windows 8)

- a. Right click on the desktop and select personalize.
- b. From the sidebar select Change desktop Icons.
- c. Tick the desktop in the check box (Fig 18).
- d. Click Apply and then ok. Done.



**Figure 18 Desktop Icon Setting**

#### **6. Troubleshooting Software installations failure:**

1. Verify administrative access
2. Recheck serial number / code correctly
3. Check the system requirements
4. Check Disk space
5. Check internet connection before Software Update
6. Reinstall Software
7. If still problem occurs, files may be corrupt try another DVD or download another copy of software.