**Question 1:**

Look through all the brochures given by different laptop companies during the NYP laptop roadshow.

**1.Choose 1 of the companies.**

**2.Analyze all the laptops in the brochure. Based on the specifications and components, choose the laptop that is most suitable for GDT.**

**3.Give the reasons for your choice.**

1. Between Lenovo,Fujitsu and HP,I have chosen Lenovo.For the company Lenovo,I was offered the choice of either Lenovo® U430p and Lenovo® Y410p and I have chosen the Lenovo® Y410p as the most suitable laptop for GDT.The reason why I have chosen Levono over Fujitsu and HP is because it offers a better specs as compared to Fujitsu and HP such as the GPU(Graphic Card), swappable drive bay and storage.

Firstly,the GPU.Lenovo® Y410p offers nvidia GPU while HP and Fujitsu offers Intel,AMD and Nvidia GPU.However the Intel GPU is not suitable for graphic intense task,whereas while AMD GPU are able to handle GPU intense task,they produce a large amount of heat and is known to cause discomfort when in use,and for Nvidia,it is able to handle GPU intense task while producing as little heat as possible,which I think is a better choice for GDT as it can prolong the life of the laptop.For Lenovo,the best nvida GPU offered is NVIDIA® GeForce® GT755M,while for HP it offered NVIDIA® GeForce® GT 740M and for Fujitsu it offered NVIDIA® GeForce® GT 720M.Between 755M,740M and 720M,the 755M have the best performance as such I have chosen GeForce® GT755M.

Secondly,swappable drive.The Lenovo® Y410p offers swappable bay which is also known as a ultrabay while HP and Fujitsu do not.The ultrabay can be used to add additional HDD(harddisk drive),another fan for better cooling or another NVIDIA® GeForce® GT755M which can be used for SLI(Scalable Link Interface) for better performances.

Thirdly,storage.While HP and Fujitsu offers 1 TB HDD storage,the Lenovo® Y410p offers 1TB HDD and 8GB SSHD(Solid State Hybrid Drive).The 8GB SSHD canbe used to store cache which will boost performances where as having 1 TB HDD for storage.

As such,I have chosen the Lenovo® Y410p as it offers a better Nvidia GPU,have a swappable drive which can be used to upgrade the laptop when needed and last but not least a 1TB HDD for storage and 8GB SSHD for a faster performances.

**Question 2:**

Go to any computer parts supplier website (e.g www.fuwell.com.sg). Obtain the price list. For each of the following aims, **work out a desktop PC system configuration with the components that you want to be inside stated clearly**:

**1.Study in GDT**

**2. Gaming**

The PC system configuration should be in a **table format** and include all the parts a basic computer should have. You may choose any extra parts that you feel are necessary. **For each configuration, give reasons for your choice of components and price/performance tradeoffs made. Do not simply choose the most expensive components without justification!**

**1) Study in GDT**

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| **PC parts** | **Selection** | **Justification** | **Price** |
| a)CPU | Intel Core i7-4770 | As it will be used for studying ,the i7 will be more suitable as it is better for multitasking as compared to a i5. | $362 |
| b)CPU Cooler | Cooler Master Seidon 120V | It is to prevent the CPU from overheating which can shorten the CPU’s life,as such the cooler is to prolong the CPU’s life by lowering its temperature preventing it from being overheated. | $78 |
| c)Motherboard | MSI H87-G43 Gaming | When compared to the MSI H87-G43,it does not have a heatsink to lower the temperature of the motherboard,as programmers usually use their computer for a long period of time,the MSI H87-G43 Gaming will benefit by having the heatsink to lower its teamperature,preventing it from overheating and prolonging the motherboard’s life. | $209 |
| d)RAM | G.Skill Ripjaws 8GB | 8GB should be suffice for studying in GDT as the software required does not exceed it. | $109 |
| e)Storage | Samsung 840 EVO SSD 120GB  Seagate 7200rpm HDD | The SSD is used to store the operating system for the computer so as to boost performance whereas the HDD is to store the data of any projects or homework while studying in GDT.This combo have been known to be cost effective as it boost computer performances while not compromising storage. | $149  $77 |
| f)GPU | Asus GTX760 2GB DC II OC | The Asus GTX760 GPU is the best performing GPU in the market and it is also silent even when in use,which can help in a quiet studying environment. | $425 |
| g)Case | Cooler Master N600 | The Cooler Master N600 is a Mid ATX tower chassis,it utilizes spaces in the case while not compromising air ventilation.It is a Mid ATX tower that works like a Full ATX tower chassis. | $129 |
| h)Power Supply | Seasonic M12II-850w | Even though the computer may not use up to 850w with this specs,in the future when more and more PC components come out,they may be more power consuming,as such to save cost on spending money on a higher capacity power supply,I rather spend abit more on the power supply now. | $169 |
| i)Optical Drive | Asus DRW-24D3ST | The disk writer is to use for installation of some program from the disk when downloading from the internet is not available. | $26 |
| j)Operating System | Window 7 Home Premium | I have chose Window 7 over Window 8 because I am more used to Window 7 and Window 8 is rather more optimised for a touchscreen monitor as such I do not feel that Window 8 is a good choice. | $120 |
| k)Monitor | Samsung S20C300BL | I have chosen this Samsung 19.5 inch monitor as I feel that it is big enough for studying at GDT and that a bigger screen is not necessary. | $158 |
| l)Keyboard and Mouse Combo | Logitech MK120 | As I am using this computer for studying,I do not feel the need to splurge on a expensive keyboard or mouse as it is not worth it. | $18 |
| m) Mouse Mat | M1-Fellowes F58024 BK mouse mat | The mouse mat is to prevent any damage to the mouse and prolonging its life. | $3.90 |
|  |  |  | Total:$2032.90 |

1. **Gaming**

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| **PC parts** | **Selection** | **Justification** | **Price** |
| a)CPU | Intel Core i5-4670 | As it will be used for gaming only,I do not see the need to splurge on a i7-4770 processer as it does not benefit the game in anyway. | $257 |
| b)CPU Cooler | Cooler Master Seidon 120V | The CPU cooler is to lower the temperature of the i5-4670 when in use so as to extend its life. | $78 |
| c)Motherboard | MSI H87-G43 Gaming | The motherboard is equipped with a large heatsink to lower the temperature of the motherboard so that even after we played 3 hours,the temperature of the motherboard will be lower than the average motherboard after 3 hours of gaming.Furthermore I chose H87 chipset over Z87 chipset as they are roughly the same specs just that Z87 is more optimized for SLI(Scalable Link Interface) and I do not intend to SLI as it is not worth it so I chose H87 chipset instead. | $209 |
| d)RAM | G.Skill Ripjaws 16GB | The 16GB is planning for the future,as games are getting more and more advance,it uses more and more ram,an upcoming game Watch Dogs uses a minimum of 6GB ram,so if I used 8GB ram,it won’t leave me much ram for other use,as such I would choose a 16GB ram over 8GB ram instead. | $209 |
| e)Storage | Samsung 840 EVO SSD 120GB  Seagate 7200rpm HDD | The SSD is used to store the operating system for the computer so as to boost performance whereas the HDD is to store the data games as nowadays games are using more and more storage,for example Assasssin’s Creed 4 Black Flag already used 30GB data already and that is not counting in the updates and DLCs. | $149  $77 |
| f)GPU | MSI GTX760 TwinFrost Gaming 2GB | The MSI GTX760 TwinFrost is a GPU by MSI which is optimised for gaming.When compared to the Asus GPU,it is cheaper but with a noisy fan,however when we are gaming,the sound from the game will drown out the noise of the fan so it is not really a problem. | $409 |
| g)Case | Cooler Master N600 | The Cooler Master N600 is a Mid ATX tower chassis,it utilizes spaces in the case while not compromising air ventilation.As time goes on where newer and longer GPU are made,most would have to change their computer chassis to a newer one so as to fit the longer GPU,however with N600,we can just remove the SSD/HDD combo cage so as to fit it in, also it is space and cooling optimised as such it is cost effective. | $129 |
| h)Power Supply | Seasonic M12II-850w | For a power supply,running at full capacity will shorten its lifespan,also as more and more power consuming GPU are coming out,I have chose the Seasonic M12II-850w as it is cheap and it provides 850w power,which is useful in the future as we splurge more on a power supply with high capacity rather than buying a new one in the future where more power is needed. | $169 |
| i)Optical Drive | Asus DRW-24D3ST | The disk writer is to use for installation of some game from their disk. | $26 |
| j)Operating System | Window 7 Home Premium | I have chose Window 7 as currently,games that are being made right now are being optimized for gaming with window 7. | $120 |
| k)Monitor | Samsung S20C300BL | I have chosen this Samsung 19.5 inch monitor as I feel that it is big enough for gaming for me and I do not feel that a bigger screen will improve our gameplay. | $158 |
| l)Keyboard | Logitech K120 | As I am just a casual gamer,rather than a hardcore gamer,I do not see the need o splurge on a $300+ keyboard made for gaming and I just need a normal and good keyboard for me to play FPS(First-Player Shooter) such as Battlefield 4. | $11 |
| m)Mouse | PowerLogic GMX-3 | I have chosen a this gaming mouse over a $100+ gaming mouse as I do not see the need for it as basically they are the same,they have a few extra buttons,it only provide better access to attacks in the game and whether it improves the gameplay depends on how the player uses it,as such to save money,I have chosen the PowerLogic GMX-3 as it is cheaper. | $15 |
| n) Mouse Mat | M1-Fellowes F58024 BK mouse mat | The mouse mat is used to protect the mouse from any damage and is slip proof so as to enable me to properly play the games without any disruptions. | $3.90 |
| o) Controller | Xbox 360 wired controller | For games like Battlefield 4 where it is a FPS game,I am comfortable with using the keyboard and mouse ,but however for games like Assassin’s Creed 4 Black Flag,I do not feel good with the controls on the keyboard,but I feel good playing it on the controller.However its vice versa for FPS with the controller,for FPS to run we have to press the right analog stick and move it,which proves to be difficult for me,as such I have keyboard and mouse for playing FPS and Xbox 360 wired controller for other games. | $60 |
| p)Speaker | X-mini ME Speaker | As I detest messy wires,i have chosen theX-mini ME speaker,it is small portable and do not have too much wire,further more it is powered by the USB port instead of a plug in.It is also cheaper than other brands,last but not least,it is very portable and I can bring it with me on the go whenever I need it outdoor,plus it runs on a battery,so it have more uses than a $60+ speaker. | $28 |
|  |  |  | Total:$1898.90 |