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**ITEC451**

**Homework 1**

(As a group of two to four)

Due: 1:59pm on February, 4 (Friday), 2011

**You need to give a presentation to the class on Friday. Thus, you must email this report and a power point slide (one email per group) to me (****hlee3@radford.edu****) by the deadline to me. You don’t need to dress up.**

**Name(s):**

* Assume that you are hired in the division of Information Technology at Radford University. If you need to select suggested laptop computers and desktop computers for RU students for the following majors, which machines will you suggest and why you will select those? You should give a manufacturer’s name, a model number, a full list of hardware specification, and a full list of OS and software specifications.
1. For a new freshmen who do not declare a major yet.
	1. **Laptop**
	2. Desktop

Why? Since the user is a freshman, he will be living in the dorms. The dorms are usually pretty small and fitting a desktop might be an issue. Also, if the new freshman likes to use technology to assist with school work, carrying a laptop to class will be nice. In that case, you don’t want a huge screen on your laptop; you want something not too big and not too small. You always want to get quality product but with a normal price. In this case, I chose Lenovo. Since Radford supports the Lenovo technology, if you run into issues, the IT Support on campus will be able to help out. The model of the laptop would be ThinkPad Edge 15" Laptop with Intel Processor. The price of this product is only $630.

Hardware specification:

|  |
| --- |
| Processor |
| Intel Core i3-370M Processor (2.40GHz, 3MB L3, 1066MHz FSB)

|  |
| --- |
| Display type |
| 15.6" HD AntiGlare, Midnight Black Smooth |
| System graphics |
| Mobile Intel 5 Series Integrated GFX Chipsets |
| Total memory |
| 2 GB PC3-8500 DDR3 SDRAM 1067MHz SODIMM Memory (1 DIMM) |
| Pointing Device |
| UltraNav without fingerprint reader |
| Hard Drive |
| 500 GB Hard Disk Drive, 7200rpm |
| Optical device |
| DVD Recordable 8x Max Dual Layer |
| Battery |
| 6 cell 2.2Ah Li-Ion Battery |
| Integrated WiFi wireless LAN adapters |
| ThinkPad bgn Wireless |

OS and Software Specifications:

|  |
| --- |
| Operating System |
| Genuine Windows 7 Home Premium 64Microsoft office will be needed. Source: [http://shop.lenovo.com/SEUILibrary/controller/e/web/LenovoPortal/en\_US/catalog.workflow:category.details?current-catalog-id=12F0696583E04D86B9B79B0FEC01C087&current-category-id=99C4BAF867E7467F9E0FAD4487A0A719](http://shop.lenovo.com/SEUILibrary/controller/e/web/LenovoPortal/en_US/catalog.workflow%3Acategory.details?current-catalog-id=12F0696583E04D86B9B79B0FEC01C087&current-category-id=99C4BAF867E7467F9E0FAD4487A0A719) |

 |

1. For an IT major
	1. **Laptop**
	2. Desktop

Why? In the IT field, you will have to write a lot of coding. If you did not go to school and had a full time job, I would recommend a desktop, especially if you like working at home all the time. However, since you are a student, you want something portable. You work a lot in group and the best way to meet up with your members and get things done would be working on your laptop. You need a bigger screen on the laptop just so you can be seeing few windows at once. You need more RAM and HD space because you will have more software and more files that will be taking a lot of space on your laptop. In my opinion, Inspiron 17R Dell will be a perfect choice. In most cases, the people in the IT field usually have some type of interest or background towards technology. You could build your Dell laptop the way you want it and you can decide on how much it’s going to cost.

**Processor**

[Intel](http://www.dell.com/mc.ashx?id=Tech-Spec-Formatting:INTEL-ToolTip&c=us&l=en&s=dhs&modalwidth=400&modalHeight=150&ovropac=0&modalscroll=yes&modaltarget=div&modaltype=tooltip&position=bottom&title=Intel&flip=true&eventType=rollover)® CoreTM i3 380M (2.53GHz/3MB cache)

[Intel](http://www.dell.com/mc.ashx?id=Tech-Spec-Formatting:INTEL-ToolTip&c=us&l=en&s=dhs&modalwidth=400&modalHeight=150&ovropac=0&modalscroll=yes&modaltarget=div&modaltype=tooltip&position=bottom&title=Intel&flip=true&eventType=rollover)® CoreTM i3 370M (2.4GHz/3MB cache)

[Intel](http://www.dell.com/mc.ashx?id=Tech-Spec-Formatting:INTEL-ToolTip&c=us&l=en&s=dhs&modalwidth=400&modalHeight=150&ovropac=0&modalscroll=yes&modaltarget=div&modaltype=tooltip&position=bottom&title=Intel&flip=true&eventType=rollover)® CoreTM i3 350M (2.26GHz/3MB cache)

[Intel](http://www.dell.com/mc.ashx?id=Tech-Spec-Formatting:INTEL-ToolTip&c=us&l=en&s=dhs&modalwidth=400&modalHeight=150&ovropac=0&modalscroll=yes&modaltarget=div&modaltype=tooltip&position=bottom&title=Intel&flip=true&eventType=rollover)® Pentium® Dual CoreTM P6200 (2.13GHz/3MB cache)

[Intel](http://www.dell.com/mc.ashx?id=Tech-Spec-Formatting:INTEL-ToolTip&c=us&l=en&s=dhs&modalwidth=400&modalHeight=150&ovropac=0&modalscroll=yes&modaltarget=div&modaltype=tooltip&position=bottom&title=Intel&flip=true&eventType=rollover)® Pentium® Dual CoreTM P6100 (2GHz/3MB cache)

[Intel](http://www.dell.com/mc.ashx?id=Tech-Spec-Formatting:INTEL-ToolTip&c=us&l=en&s=dhs&modalwidth=400&modalHeight=150&ovropac=0&modalscroll=yes&modaltarget=div&modaltype=tooltip&position=bottom&title=Intel&flip=true&eventType=rollover)® CoreTM i5 460M (2.53GHz/3MB cache)

**Operating System**

[Genuine](http://www.dell.com/mc.ashx?id=Tech-Spec-Formatting:MDA-ToolTip&c=us&l=en&s=dhs&modalwidth=400&modalHeight=150&ovropac=0&modalscroll=yes&modaltarget=div&modaltype=tooltip&position=bottom&title=Genuine%20&flip=true&eventType=rollover) Windows® 7 Professional 64-Bit

[Genuine](http://www.dell.com/mc.ashx?id=Tech-Spec-Formatting:MDA-ToolTip&c=us&l=en&s=dhs&modalwidth=400&modalHeight=150&ovropac=0&modalscroll=yes&modaltarget=div&modaltype=tooltip&position=bottom&title=Genuine%20&flip=true&eventType=rollover) Windows® 7 Home Premium 64-Bit

**Memory**[**2**](http://www.dell.com/mc.ashx?id=technotes:graphics-and-system-memory&c=us&l=en&s=dhs&modalwidth=400&modalHeight=150&ovropac=0&modalscroll=yes&modaltarget=div&modaltype=tooltip&position=bottom&title=Important%20Details&flip=false&eventType=rollover)

2GB Shared Single Channel DDR3

3GB Shared Dual Channel DDR3

4GB Shared Dual Channel DDR3

4GB Shared Single Channel DDR3

5GB Shared Dual Channel DDR3

6GB Shared Dual Channel DDR3

8GB Shared Dual Channel DDR3

**Chipset**

Mobile Intel® 5 Series Express Chipset (HM57)

**Video Card**

1. ) ATI HD5470 Mobility RadeonTM
2. Integrated Intel® HD

**Display**17.3 inch display (1600X900)

**Audio and Speakers**

4-Watt (2 x 2W) High Definition Audio 2.0 Stereo Speakers with SRS Premium Sound™
Built-in microphone

**Hard Drive**

Up to 640GB[3](http://www.dell.com/mc.ashx?id=technotes:hard-drive&c=us&l=en&s=dhs&modalwidth=400&modalHeight=150&ovropac=0&modalscroll=yes&modaltarget=div&modaltype=tooltip&position=bottom&title=Important%20Details&flip=false&eventType=rollover) hard drive (5400RPM)

**Optical Drive**

Internal tray-load DVD+/-RW or Blu-ray Disc™ Combo (Read BD, Burn CD/DVD) Drive

**Power**

Up to 3 hours and 37 minutes[4](http://www.dell.com/mc.ashx?id=technotes:battery-life&c=us&l=en&s=dhs&modalwidth=400&modalHeight=150&ovropac=0&modalscroll=yes&modaltarget=div&modaltype=tooltip&position=bottom&title=Important%20Details&flip=false&eventType=rollover) of battery life with a 6-cell battery
Up to 7 hours and 30 minutes[4](http://www.dell.com/mc.ashx?id=technotes:battery-life&c=us&l=en&s=dhs&modalwidth=400&modalHeight=150&ovropac=0&modalscroll=yes&modaltarget=div&modaltype=tooltip&position=bottom&title=Important%20Details&flip=false&eventType=rollover) of battery life with a 9-cell battery
6 cell 48 WHr Li-Ion Battery
9 cell 90 WHr Li-Ion Battery (optional)

**Camera**

1.3MP Integrated Webcam

**Wireless**

**Wi-Fi Options:**
Standard Dell Wireless 1501 802.11 g/n or
Dell Wireless 1397 802.11g or
Dell Wireless 1520 802.11a/g/n or
Opt. Intel® Centrino® Advanced-N 6200 802.11 a/g/n
Opt. Intel® Centrino® Advanced-N + WiMAX 6250 802.11 a/g/n

**Bluetooth Options:**
Dell Wireless 365 Bluetooth Internal (2.1) mini-card (optional)

**Ports, Slots & Chassis**

**Externally Accessible**
(3) USB 2.0
(1) combo E-SATA/USB 2.0
HDMI™ Port
**Standard 7-in-1 Media Card Reader**
Digital (SD) Memory Card
Hi-Capacity Secure Digital (SDHC)
Hi-Density Secure Digital (SDHD)
Multi Media Card (MMC)
Memory Stick (MS)
Memory Stick PRO (MS Pro)
xD Picture Card (xD)
**Dimensions & Weight**
Width: 16.54" (423.0mm)
Height: 1.24" (31.4mm) front / 1.38" (35.0mm) back
Depth: 10.87" (287.0mm)
Starting weight of 6.67 lbs (3.027 kg)[5](http://www.dell.com/mc.ashx?id=technotes:laptop-weight&c=us&l=en&s=dhs&modalwidth=400&modalHeight=150&ovropac=0&modalscroll=yes&modaltarget=div&modaltype=tooltip&position=bottom&title=Important%20Details&flip=false&eventType=rollover) (17.3" HD display, 6 cell battery).

**Regulatory Model: P08E
Regulatory Type: P08E001**

In addition, you might need some specific software on your machine: Microsoft office, Java tools, Eclipse, Toad & oracle, some Rational Tools and etc.

Source:

* <http://www.dell.com/us/p/inspiron-17r/pd>
* <http://echochamber.me/viewtopic.php?f=36&t=43013>

1. For an Interior Design Major
	1. **Laptop**
	2. Desktop

Why? Recommended that students purchase laptop computers. While these cost more than desktop computers they have significant advantages. Students can bring their computers to work in any studio. They can work both on and off campus, in and out of town. Further, we can help trouble-shoot hardware and software problems on laptops in ways we obviously can not with desktop computers. Macs would probably be more preferable to this case however a PC is always cheaper. You will probably need a big screen and a good graphic card on your machine. HP has known for their design tool that they provide and the quality of the image on their machines. As the result, I would say to buy HP Pavilion dv6-3052nr 15.6-Inch Entertainment Laptop.

Hardware:

**Processor**

Intel® Core™ i7-720QM processor 1.60GHz with Turbo Boost Technology up to 2.80 GHz

**Operating System**

Genuine Windows® 7 Home Premium 64-bit

**Display**

15.6" diagonal High-Definition HP BrightView LED Display (1366 x 768)

**Memory (RAM)**

6GB DDR3

**Hard Drive**

500GB (7200RPM) SATA with HP ProtectSmart Hard Drive Protection

**Weight & Dimensions (w x d x h)**

5.35 lbs; 14.88" x 9.65" x 1.21"/1.37"

**Battery Life**

Up to 5.15 hours

**Wireless**

Wireless LAN 802.11b/g/n WLAN

**Optical Drive**

LightScribe SuperMulti 8X DVD±R/RW with Double Layer Support

**Video Graphics**

ATI Mobility Radeon™ HD 5650 graphics with 1024MB DDR3 with up to 3738MB total graphics memory

Software and OS specifications:

* Microsoft Office Suite
* Adobe CS3 or CS4
* Autodesk Architecture Suite
* SketchUp Pro
* Painting/Art software tools.

Source:

* <http://www.amazon.com/dp/B003Y73P44?tag=procompcom-20&camp=213381&creative=390973&linkCode=as4&creativeASIN=B003Y73P44&adid=1TDBJ25C6GE5R3ZKQGMS&>
* <http://art.uga.edu/index.php?pt=1&id=169>
1. For a Business Major
	1. **Laptop**
	2. Desktop

Why? Since it’s always about the money, I will say a college student can have a laptop for a Business Major. It is not like you are running a business on your machine at school; you just have to do the business school related assignments. You can have a very simple laptop. It doesn’t have to be big or have a lot of memory and HD space on it. The laptop I would recommend would be Toshiba Satellite C655-S5090 15.6-Inch Laptop. I have something that is very similar to this laptop, but instead of Toshiba, I have Lenovo. The only reason why I have it, it is because I got my laptop for the same price on black Friday. Other than that, I would have gotten something in this area but with less quality. You have to know when to buy the right product at the right time.

Hardware:

* Intel Celeron processor 900 2.2 GHz, 1MB L2 Cache, 800MHz FSB
* Configured with 2GB DDR3 (max 8GB)
* 320GB (5400 RPM) Serial ATA hard disk drive, DVD SuperMulti drive supporting 11 formats
* 15.6" diagonal widescreen TruBrite TFT display at 1366 x 768 native resolution (HD) with native support for 720p content, Intel Graphics Media Accelerator 4500M with 128MB-829MB dynamically allocated shared graphics memory
* Genuine Windows 7 Home Premium 64-bit with a 6 cell/48Wh Lithium Ion battery pack; Battery Life (measured by MobileMark 2007): 4 hours, 35 minutes.

Software:

* Microsoft office
* Maybe some specific software that is requested by the teacher.

Source:

* [http://www.amazon.com/dp/B0041O492Q/ref=asc\_df\_B0041O492Q1414288?smid=ATVPDKIKX0DER&tag=dealt179907-20&linkCode=asn&creative=395093&creativeASIN=B0041O492Q](http://www.amazon.com/dp/B0041O492Q/ref%3Dasc_df_B0041O492Q1414288?smid=ATVPDKIKX0DER&tag=dealt179907-20&linkCode=asn&creative=395093&creativeASIN=B0041O492Q)
* <http://www.consumersearch.com/cheap-laptops/toshiba-satellite-c655>