

PC Construction & repair – Research Assignment Assignment Brief

Module Item; 12.1.1: **Sections:** 1, 3, 4; 60% of task, 20% of module.

Your friend has asked you to build a custom PC.

She is aware that there are many good deals available from shops and on-line-sales and manufacturing channels. However, she is determined that the PC in question should only have components and software that she will need and use.

She is an experienced computer user and realises that many of the extras provided by the majority of sellers are never used by the average computer user; as such she considers them a waste that – even with today's low PC prices – she would rather not pay for.

She has made the following list of specifications to be taken as *suggestions* for you to act upon:

1 General System Type

1.1 The computer will be used as a workhorse for general office functions and some graphics manipulation as well as DTP (page makeup) work. She works as a freelance landscaper and will use applications in support of this.

2 Processor:

2.1 She has expressed no preference for processor type and suggests something a little above mid-range. She refuses point blank to pay for the latest, fastest CPU when she does not intend using the PC for gaming or other excessive tasks.

3 Memory

She has requested as much as possible since:

3.1 applications will tend to run faster and

3.2 the life of the PC will be extended

4 Graphics Card

4.1 With no need for high-powered gaming rendering, any generic card will do. Standard screen resolutions up to 1024x768 pixels are adequate, at full colour.

5 Monitor

5.1 Flat screen LCD with biggest possible display size. Her office is relatively cramped so the depth of a CRT is not welcome.

6 Hard Disk

6.1 She intends to store large quantities of pictures, as well as to backup her laptop onto this machine. Therefore she estimates a bare minimum of 80GB is required.

7 Removable Media

7.1 She loathes floppies disks and thinks that men who use them are like men who drive big cars.

7.2 Though a cheap ZIP drive may tempt her, she feels they are less popular by now and will accept one on one of the the computers IDE channels but only if it is cheap. She would prefer and extra harddrive on the channel instead.

7.3 A regular CD drive is required as she likes to listen to music as she works.

7.4 A DVD+RW drive is a must, again on an IDE channel. She wants to use this to burn everything from CDs to DVDs and to perform backups as well as sharing files.

8 Sound

8.1 A generic sound card to allow her to listen to music CDs is required.

8.2 A good set of speakers, preferably with some bass amplification or minor sub-woofer would be nice. She doesn't intend deafening the neighbours so low to medium power output is all that is required.

9 Connectivity

9.1 As an experienced user she intends keeping her old PC and converting it into a server for a home network.

9.2 She will take care of the server and network set-up and her laptop herself.

9.3 She intends this network to be wireless. All you need do is provide network connectivity for the PC in accordance with the 802.11g standard.

9.4 She already has broadband in place and will allow connection to the Internet via the broadband hub already in place. You will have no task to perform in this area except the provision of 802.11g connectivity.

10 Keyboard/Mouse

10.1 She would prefer that both would be wireless; failing this longer leads (using extensions) would be preferred. The mouse must be optical as mechanical mice fall foul of the dust that is often on her clothes after a days work.

11 Operating System

11.1 As long as it works, she is confident she can use it.

12 Applications Software

12.1 Same attitude as the OS, but she must be able to read Microsoft format files that clients may send her. She wants to be able to generate PDF format files of suggested landscape layouts for e-mailing but refuses to pay the prices that Adobe charge for their Adobe Writer software.

13 Printing

13.1 She has no need for further printing facilities.

14 Budget

14.1 Whilst not rich, your friend expects to use this PC for quite some time and as such is willing to spend money on something that satisfies her needs. She estimates circa €700 should be more than sufficient.

14.2 This figure does **not** include VAT as she is registered for VAT and can claim it back.

14.3 The PC is also intended for work and can also be allowed against running costs prior to calculating income tax.

14.4 As such, exceeding the stated budget is an option if good reasons are given.

The marks for this assignment are more for the reasons why components are chosen than the components themselves. Components, software etc must be compatible with one another. More details may follow. *Hint*: use the web. *Big hint*: ASK QUESTIONS!!! *Bigger Hint*: use the web, think, then ASK QUESTIONS!!!

Due Date: 20050429.15:15