A01

Task 1- Aims and Purposes

My aims and purposes are put here because john needs a computer with different accessories and programs which are necessary for his learning and day to day life. As his I.T. consultant I have to decide what computer and access ories he will need. I will need to John's computer will need to be fast and have a good graphics card , as John is a dedicated fan of online game Runescape .

In John's spare time he likes taking photos, making music and making movies and playing games so his computer has to have a lot of memory to save his photos and movies, he needs to be able to store music, he likes listening to Girls Aloud. The computer should also be in different languages because he is studying German for A-Levels.

He needs to have a good internet connection because he uses games and plays runescape. He is a member of the local conservative party and needs to print flyers, so he will need Microsoft office and will also need a printer.

He also likes making his own music and movies so he will need programs such as Cubase to make music and Adobe Premiere to make movies. He will also use editing programs such as adobe Photoshop. He also needs programs for his art/design A-Level such as Picasso. His computer also needs anti-virus software so his computer is protected from viruses.

Task 2- Hardware Requirements- Input devices

Item	Description	Why Required?
Keyboard	A keyboard is made up of keys used to insert numbers, text and punctuation, it is also has other keys. Most keyboards are qwerty keyboards because researchers have found that this is the preferred layout for a keyboard. Keyboards are made so hands are laid out in a natural, comfortable position.	John needs to use email, design flyers and generally use a keyboard to type in text. He can also use a keyboard to play computer games like runescape. It is hard to use a computer without a keyboard. A keyboard is also very easy to use and doesn't take a lot of practice to get it right. But too much use of a keyboard can cause RSI (Repetitive strain Injury).
Mouse	A mouse is used to control what happens on the screen. There is generally 2 buttons left click selects an item and right click brings up a relevant menu. Most people are used to using a mouse so no one would need any training to use a mouse. But overuse of a mouse can lead to repetitive strain injury.	To navigate and select different items and while playing runescape a mouse is needed. A computer can be used without a mouse but it is very difficult because he needs to select things quickly. A mouse usually has three buttons one right click, one left click and on scroll button but a new mouse will sometimes have a back button which can be used in an internet browser, this will make johns research much quicker.

Joystick	Joysticks are used while playing computer games. They are used for navigating in different directions. Joysticks can be moved in many different directions and it tells the computer what to select it generally has at least two buttons on it.	To play some computer games he will need to use the joystick to move (Good for racing or aeroplane games). A joystick is for games which john likes to play; it controls the object in a game e.g. the car in a racing game.
Microphone	A microphone detects sounds which are then sent to the computer. The better the microphone the better the quality of the sound that comes out from the speakers when playing back the sounds recorded.	He needs to talk to his friend and he likes to record music. And he uses a microphone to record the sound of videos. If John has a good microphone it will be able to detect all the sounds and voices that John wants to input in the computer.
Webcam and Digital Camera	They are both used to record or take pictures. It would need to have a high megapixel because the higher the megapixel, the better the quality. No film is needed for modern day cameras and picture can be viewed immediately after the picture has been taken.	He needs a digital camera to record his home movies and he needs a webcam to make a video call with his friend. Cameras are usually quite expensive but as technology is developing they are becoming cheaper. The picture taken from cameras can take up a lot of memory space.

| Graphics Tablet | A graphics tablet is a board where you can draw/sketch drawings. Designers and illustrators often use graphics tablets. They can be extremely accurate, so drawings made can be precise. | It would be useful for him to have this because it would make it easier to design flyers and could be helpful with his art/design A-level. Johns art/design A-Level will require him to do accurate and great pieces of art work and a graphics tablet can give him precision. |

Task 2 Hardware Requirements - Output Devices

Item	Description	Why required?
Monitor	The monitor shows what is going on through thousands of pixels. Recently LCD monitors have become common. Large monitors make it easier to use a computer; it is probably one of the most useful items that come with a computer.	He needs a monitor to view what he is doing. He needs a widescreen HD monitor as he likes making movies. John needs a monitor which is at least 720p, maybe LCD as they are good quality, but the best quality screens are the ones that are 1080p.
Ink-Jet Printer	This is an output device what can print out work. It is fast and ink is cheap to replace. They operate by heating the ink when it's going through the nozzle.	He needs to print out flyers and he also needs to print out his work. Ink-jet printers are very useful for home-use as it is cheap and easy to use. But ink-jet printers do not have high quality printing.

Speakers	Speakers are output devices which project sound out loud so 1 or more person can hear it. But sometimes speakers can often disturb other people who doing work or are busy.	To listen to his music out loud and watch his homemade movies. Text can be converted and be projected out loud through speakers. Computers often have internal speakers but they are not of very high quality so John needs separately bought speakers.
Headphones	Headphones are output devices used to listen to music or movies, when no one else can hear it. They are small loudspeakers which go on the outside of the ear or the inside of the ear depending on the type of headphones.	To listen to his music or watch movies without anybody in the room listening to it. Headphones are very useful when John wants to listen to his own personal sounds when he doesn't want anyone else to hear.

Task 2- Processing devices

Item	Description	Why Required?
Graphics Card	This makes the computer appear on the screen. Different graphics cards add different functions; some are made for 3d or 2D. Graphics card	He needs a good graphics card, as he likes playing games. If he has a better graphics compute will be a higher quality. If john wants to play games in 3d he needs a 3D graphics card and a 3D monitor.

Central Processing Unit (CPU)	The CPU is the brain of the computer; it makes all the decisions, searches and does calculations. It processes instructions. The CPU contains a tiny quartz clock which ticks; every time it ticks one instruction is sent. The more ticks per second the more instructions are sent.	The computer wouldn't work without this and the higher the GHz, the faster the computer responds to processes. John needs at least a processor with higher than 3GHz because that will carry out 3 billion instructions per second.
Motherboard	The motherboard is where all the components are connected together. The motherboard houses the sound card, graphics card, RAM, ROM, Network interface and hard disk.	He needs the motherboard for the computer to work and to use the computer. And he needs it to plug anything in it e.g. Mouse. The motherboard connects all of the components together, so without this nothing would work because none of the connections between wires will be made.
Sound Card	A sound card is a computer expansion card that facilitates the input and output of audio signals. The term sound card is also applied to external audio interfaces that use software to generate sound, as opposed to using hardware inside the PC.	He could use the sound card to transfer the sounds from the computer to the output device. John needs a good sound card so when the sound is projected from the computer to the speakers or headphones the quality of the sound will be clear.
ROM	ROM stores permanent data about the computer which cannot be changed by the user. The data on the ROM cannot be deleted unless the	He needs this to make the computer save all the permanent memory, used to start up the computer. Without the ROM the computer wouldn't start up

	computer is rebooted.	as it contains the operating system to start up the computer.
RAM	RAM stores temporary memory and helps the computer to run. A typical ram is about 1-2GB. The ROM chip is used to hold data that cannot be changed by the user.	Without the RAM the computer wouldn't be able to run, the higher the RAM more processes can be happening at one time. John would need at least a 4GB RAM as that will provide john with a lot of temporary memory to make his computer faster.

Task 2- Storage Devices

Item	Description	Why Required?
Hard Disk	It stores data, all data is stored on the hard disc. The hard disk is the main storage device on a computer it is needed for storing everything from pictures to software. The data is stored in this magnetic material. Thus, the hard disk is known as a magnetic storage device.	He needs to save all his music, movies, work and other files. Everything he does needs to be saved on the hard disk so he needs. He needs a hard disk that comes with his computer to have a lot of memory preferably more than 500GB, so it is unlikely for him to need more memory.
Flash Memory	A flash memory, also known as a USB, stores memory which can be transferred from one computer to another computer. They are usually lightweight and easy to use.	He needs a USB to transfer his work from his computer to another computer so he can also edit his work when he is studying on another computer. John can save a lot of work on a Flash Memory because they can be up to 64GB.
CDs and DVDs	CDs and DVDs are used to store audio or video files which can be played in a compatible CD or DVD player. A single sided DVD can store about 4.7Gb of data. DVDs which store data on both sides can hold over 9Gb of data.	He could use DVDs or CDs to store his music or the homemade movies that he makes. They are small, portable and are very easy to use but John's computer will need a disk reader which usually comes with the computer.

Task 3- Software Requirements

Item	Description	Why required?
Windows 7	It is the latest edition of windows operating systems. It has more features than windows vista such as improved booting times. It also has pre-installed programs such as windows movie maker, windows photo gallery and other programs.	Windows 7 is quick and easy to use. He can also save files that can be compatible with other operating systems. I think that this will be the most useful operating system because most programs are compatible with windows and this is the latest edition of windows. Other operating systems like Apple (Mac) are much more expensive and not all programs are compatible with an Apple Mac and a Linux.
Microsoft Office Professional 2007	It is cheap (£80 minimum price), Microsoft office 2010 is not a lot different but is £430. Although this isn't the latest edition of Microsoft office, it isn't much different from the new 2010 edition and the 2007 edition is much cheaper.	Microsoft office professional is one of the easiest software applications that can be used and it is very powerful which enables John to do many tasks at one using many different features such as word art. Although Microsoft office doesn't have as much creativity skills as other software, such as Adobe Photoshop, it still has many other features such as creating publications and presentations.

Word	:	Microsoft Word is easy to use and can also be saved in different formats. The 2007 version of word is compatible with word 2003, which he uses at college. Word also gives options of different layouts and different templates.	He needs word to help him with his A-levels and he uses Microsoft office at college so he is used to it. He can also use word to create flyers and other documents for his participation at the local conservative. Word can be used to create documents, letters, flyers and general editing. Word has many simple features which will make Johns work look good.
Excel	:	It features calculation, graphing tools and many features what can be used in a spreadsheet. Excel is extremely useful as it can do anything a calculator can do and plot it into graphs and tables. Excel isn't all calculations; it also has some design features, for example colourful tables, graphs, text and table templates.	He will use excel to make spreadsheets as he could be using this for his ICT A-level. Word is a very cleaver, powerful application as it can solve equations deal with difficult numbers and plot them into graphs. He can also use excel to plot tables for general use, for example how many leaflets he has printed for his local conservative party and how much were the printing costs.
PowerPoint	:	PowerPoint can be used to make slideshow presentations which are easy to use. PowerPoint has custom animations which can be used on text, picture and slides. PowerPoint also gives templates which can make the presentation look of high standard as the templates have a colour scheme which makes a presentation look professional.	He could use PowerPoint to help him with his ICT A-level and because John is used to using Words at his college. He can also use PowerPoint to make presentations in his other a-levels, for general use and to give presentations about the local conservative party.
Outlook	:		

Publisher:	Microsoft Outlook is a personal information manager from Microsoft, available both as a separate application as well as a part of the Microsoft Office suite.	He needs outlook to view his emails and easily manage everything. John can send and receive emails quickly using outlook. He can also use outlook to attach files, e.g. take work from college and back it up on home computer by sending files through an email.
	This is a publishing program which is easy to use, has many templates and produces good quality documents. Publisher is very powerful and easy to use. It lays out work for anyone who wants to produce work. To use publisher a custom layout doesn't have to be designed which makes work much quicker. Other publication software is not as fast as publisher.	He needs publisher to produce flyers, leaflets and other documents he has Microsoft office 2003 so it is compatible with Microsoft 2007. He can also use publisher to produce letters that he can send and use generally. Publisher has many templates for example letters, flyers and business cards and they come in different sizes (A4, A5 and more).

Access :	Microsoft access is a program which allows you to make tables and search information in a database. If formulas are not needed it is better to use access than excel because it is easy to navigate to an area of data out of a database.	He is likely to use this in his ICT A-level so when he does his work at college, he can finish it off at home. John can also use access to create tables about the amount of leaflets he has made. He can also use a database to record everything that goes on during the conservative party meetings.
Adobe Photoshop Elements	Adobe Photoshop is editing software used to edit pictures. It is also cheap. Adobe Photoshop elements might not be able to produce finalized documents like word or publisher but it can create stunning design picture, text and other shapes.	He could use adobe Photoshop to edit his picture or graphics in Art/Design level. He also likes photography and he will be able to edit his pictures. To produce quality leaflets for his local conservative party John can create shapes and a design scheme in adobe Photoshop and bring it into word so he can add text and finalize his document.
Adobe Premiere Elements	Adobe Premiere Elements is a video editing software application for nonlinear video editing, published by Adobe Systems. It is a scaled-down version of the professional-level Adobe Premiere Pro. Adobe premiere elements have features which can edit each individual time frame.	John likes making and editing home made movies and adobe premiere is a professional movie making software. An alternative video editing software is windows movie maker which comes free with windows 7, but windows movie maker doesn't have as much editing features because it is free and John will usually get more

		for something he pays for.

Task 3 –Software Requirements

Item	Description	Why Required?
Reason	Reason is a music making program which allows you do add and edit different sounds. Reason is a professional music making software which allows someone to edit music or sounds, just like professionals e.g. DJs.	In John's free time he likes making his own music so reason would be a good program for him to use. John can create a remix of other people music tracks or he can create his own music. He can also go back and edit every time frame of his music track.
Microsoft German Language Pack	Microsoft German language pack converts any language to German. It can even convert an internet page to German language.	He studies German for his A-levels. John can use the German language pack to help him convert English to German if he needs help with his work. /he can also use the German language pack to convert all of his settings to German language so he can get used to reading German.
Windows Live Messenger	Msn messenger is a free messenger which is easy to use and is used by many people. John can also use windows live messenger on his mobile so he can talk to a contact even when he isn't at his compute. It is very easy to	John needs to talk to his friends and family. He also likes to make video calls. Windows live messenger is free and can be used just to write messages to a friend or family and John can also send happy or sad emotions to a contact

	use and he can add any contacts and make video/voice/text chats to them.	he can also attach and send files to somebody in his contact list.