**Justification of a Computer System**

**Custom Build**I chose to design a custom build PC for several reasons. Firstly, while iMacs would meet all of the requirements and then some, they are far too expensive.  
Secondly, building a custom PC allows the system to meet all of the requirements at a much lower price and in a much more specific manner.  
Thirdly, using pre-built PC’s does not allow the requirements to be met in as specific a manner as using a custom build.

**CPU**  
I chose the Intel i3-550 because, with two cores and a 3.2GHz clock speed, it is plenty powerful enough for day-to-day use, and Intel are well-known brand with a good reputation.

**Motherboard**  
The main reason I chose the Intel DH57JG Mini ITX LGA1156 motherboard is because, being made by the same manufacturer as the CPU, is guaranteed to be compatible, and both the CPU and motherboard are most likely optimised to work together.

**RAM**  
The Crucial 4GB DDR3-1600 memory was chosen because 4GB is the ideal amount of RAM – not so little the hard drive starts thrashing when the user tries to multi-task, but not so much that some will never be used. Also it is DDR3, which means it will be very fast.

**Graphics Card**  
I chose the Radeon 5450 because of its performance-to-price ratio. Other cards of the same performance level would usually be twice the price. Also, it is a mid-range card, suitable for everyday graphical tasks, but not needlessly overpowered.

**Case**The Zalman ZM-T4 MicroATX Mini Tower Case is small, has good ventilation, and is well-priced at around £13.

**Storage**  
I chose a 250GB drive because the average user will never need more than 250GB. At 7200 RPM, the Western Digital drive is also very fast.

**Monitor**The Samsung FX2490HD is well-sized (24”) and has a 1080p display, meaning text and images will be clear and sharp, reducing fatigue on the eyes. At only £18, it is very well priced too.

**Optical drive**As optical drive technology has been more or less perfected, even a cheap generic optical drive is fast enough for almost any purpose.

**Mouse**  
The Kensington optical mouse can be used by left or right-handed people, and is perfectly suited to everyday use.

**Keyboard**Dell has a good reputation when it comes to hardware, and this ergonomic keyboard will help prevent RSI (repetitive strain injury) and is quiet.

**Power Supply**  
The ATX power supply is rated for 300W, which is plenty more than this build needs.

**OS**  
The majority of the computers will use Windows 10. Windows 10 is currently free, and there is a lot of free software available. Windows 10 should be familiar to users of previous versions of Windows, and is easy enough to use for those who aren’t.  
Linux is also free, and those wishing to use Linux can have it for free too. There is a vast repository of free software for Linux too.  
Those who wish to use OS X can use a BYOD scheme, or run OS X in a virtual machine on either Windows or Linux.

**Office software**  
Microsoft Office could be replaced by the free LibreOffice or OpenOffice, giving a full suite of office software for free.

**Anti-virus**  
For anti-virus, I recommend AVG. It comes with numerous features such as malicious software detection & removal, scheduled scans and performance optimization. It is also free.