# Report Task 2

## ~ Hardware and Software Used ~

To create the new Top Toggs information system I have used a computer of the following specification:

Internal:

Intel Pentium Celeron CPU running at 566Mhz.
128Mb of RAM
8GB UDMA66 Hardisk
52x CD-ROM Drive
1.44Mb Floppy Disk Drive
Onboard 128 Bit Sound
Onboard 4Mb Graphics
10/100 Ethernet Network Card

External:

Standard 15” CRT Monitor
Standard Windows 101 Key Keyboard
Standard two-button mouse
LaserJet printer (accessed via Network)

The keyboard, as the name may suggest, is a simple PCB that is sensitive to touch. The plastic casing incorporates 101 or 101 keys that are supported directly above the areas of the PCB that responds to touch. Therefore when a key is pressed it triggers an electronic signal tha t the computer interprets as a binary number, which is in turn changed into the appropriate character.

The mouse is a device allowing a pointer to be moved around the screen in response to the relative position to the mouse. Two optical sensors monitor two wheels, at 90 degrees to each other (equivalent to the y and x axis on a graph) driven by a spherical mouse ball. These optical signals which are read as a set of co-ordinates to be able to plot the mouse pointer on the screen. Two other buttons, and in some cases a scroll wheels, work in similar ways however they respond as impulses rather than a constant stream of monitored data. Some more expensive mice scan the wheel position more than 80 times a second!

One of the most essential parts of a computer system is the monitor it allows me to see exactly what is happening with my computer. The monitor I have used was set at a resolution of 1024 by 768 at 75hz. This means that 786432 (1024x768) are pixels are in use. The 75Hz indicates that my screen is re-drawn 75 times a second.

To produce hard copies of information a printer is used. In the way the computer system I am using is configured to work in the following way: Data is sent from the terminal via the network as Ethernet packets to the server whic h then redirects them back down the network to the appropriate print server, which is a small box connected to both the network and the printer. The print server than changes the data from Ethernet packets to the data type usually sent from a computer that the printer would recognise.

The printer having got this information stores it into its print buffer and releases the data as it is needed to the electronics inside that produce the actual print out. The printer, now having an image of the document to be printed in its memory uses a laser positively charge electrons on the surface of paper that is to have ink on it. The ink is negatively charged and therefore it is attracted to the positively charged paper. Heat is applied to allow the ink to dry quickly.

To create the information system I have also had to use software. I have chosen to use the ‘Microsoft Office’ package, which contains a word processor: Microsoft Word, a spreadsheet application: Microsoft Excel, a database application: Microsoft Access a nd a presentation creation application: Microsoft Powerpoint. Used together these applications are very powerful as they use a single shared core library that allows data to be passed between them seamlessly.