Hardware & Software
Lesson 2

PC hardware Issues
- How much do you need to spend for each PC?

Basic new PC
Word-processing / Spreadsheets / Database entry / Web browsing / email

You need a better PC for:
Computer programming / Large Databases / complicated calculations / Video production / multimedia editing / server

Macs are useful for:
Graphics Artists / Professional desktop publishing / Music production and video production

Printer Issues
- Laser Printer
  Good for high volume / Often has duplex functionality / higher purchase price / lower running costs
- Inkjet
  Low initial purchase price / higher running costs / Good for colour
- Professional Printing
  Higher quality printing / high volume / less flexibility / different materials etc

Backup Devices
<table>
<thead>
<tr>
<th>Storage device</th>
<th>Cost of data storage</th>
<th>Reliability</th>
<th>Availability</th>
<th>Access to data</th>
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<tbody>
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<td>CD drives</td>
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<td>DVD drives</td>
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<td>Tape streamers</td>
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<td>Floppy Disks</td>
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Exercise 1

Software
- Operating System – Essential for every computer
- System Tools – Background tools e.g. network management, virus protection etc
- Applications – Word Processors, Web browsers etc.

Other hardware
- Screen size – Larger screens allow workers to fit more data on screen / reduce eye strain
- LCD screens – Lower fire risk / less electricity
  Better for your eyes / less space
- Mice – Standard mouse / Optical mouse (More accurate)

More Great Resources at:
http://www.jamesabela.co.uk/
Operating Systems

- Unix (Linux) – Used primarily for managing servers, but is popular with techies for day-to-day use. Linux and most Linux applications are free. It also uses less power than Windows.
- Mac OS – Used for Macintosh computers
- Windows – Used in the majority of PCs.
My Computer – Bread Crumb Bar

Internet Explorer

Search

Windows - Summary

Vista
- Better Search
- Easier to find Windows
- Easier to multi-task
- Future Support
- Potentially faster
- Intellectual Property Protection built-in

XP
- Runs all current software
- Runs all current hardware
- Designed for today’s PCs

System Tools

- Virus Protection
- Firewall
- Network control
- Other system tools required by software

Applications

- Databases – Most MIS systems need databases.

Other applications
- Word Processors / Desktop publishing / email
- Spreadsheets / Statistical packages
- Presentation software
- Web Browser

Exercise 2 – With a partner fill out the software you use.
**MS Office Upgrade**

Upgrading to Office 2007

**The Good**
- Smart Art makes drawing easier
- Improved Formatting
- Workflows introduced
- Many Small Improvements
- Better Customization
- Create PDFs – With Add-on
- Create better templates & themes
- Better security & document sizes

**The Bad**
- Some relearning required
- No adherence to Windows Themes
- Some power users may find Office "dumbed down"
- No Full 64-bit support

**Costing**

**Software Choices**

**The Internet**
- Email & Discussion Groups
- Research & Information
- News
- Entertainment
- Download Files
- E-Shopping
- Financial matters
- Auctions
- Telephony & conferencing
- Career advancement
- Distance Learning
- E-Business

Exercise 3 – How can you do each of these things and what are the Websites you would use

More Great Resources at:
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### Programming Languages
- **Older languages** – FORTRAN, COBOL & Pascal
- **Low level languages** – C, Assembler & Binary
- **Application Development** – C++, JAVA, Visual Basic
- **Database development** – SQL, .net, ASP, Oracle Database
- **For Web development** – html, xml, PHP, ASP

### Support for your computer
- Users have problems with software – Loss of productivity / loss of business
- Often ask friend who is more knowledgeable – loss of their productivity
- Still cannot solve problem, so phone somebody else and so on...

### How to choose software
- Make sure it is easy to use
- Make sure that the help files are actually helpful!
- Do you get printed manuals?
- Do you get software training?
  Always make sure you either have:
  - Good quality internal company support
  - Pay for good quality technical support

### Summary
- Hardware is important, but what is most important is the software you run on it.
- There are cheaper alternatives to MS products
- The Internet is a key tool for business & personal use
- Knowing the uses of programming languages can help you hire the right people.
- Training and support are essential parts of your decision