
Sample Assignment: Unit 19 Developing and Maintaining ICT Systems for Users

OUTLINE ASSIGNMENT

This assignment will allow you to meet all of the assessment requirements for Unit 19: *Developing and Maintaining ICT Systems for Users*. You should look at the Assessment Evidence Grid to check what you need to demonstrate in each task to achieve each mark band.

In this assignment you will:

- Establish the key requirements of two users and specify computer systems to meet those needs
- Upgrade systems by adding new components and replacing existing ones
- Use troubleshooting procedures to find faulty components and solve problems
- Evaluate information sources, your specifications and your performance.

Task 1

Interview **two** people who want you to specify a computer system for them. The two people should have different requirements from these systems. If you cannot find suitable people, your teacher(s) has some case studies that they will use to answer your questions:

Case Study 1: Roger, a retired teacher who wants to produce promotional and educational videos.

Case Study 2: Lindsay, the Managing Director of a small construction company who wants a network server and any necessary upgrades to existing computers – the network cabling and set up will be carried out by a specialist company.

Keep a record of the questions you ask and the responses you receive. Use these to identify each user's key requirements.

If you are aiming to achieve a higher mark, you should plan the questions you will ask in advance. To reach the highest mark band, you should question each user in depth.

Task 2

Produce a detailed specification for each system to include:

- Micro-processor and associated components
- Display system
- Memory
- Storage device(s)
- Input device(s)
- Output device(s).

And for each give details (as appropriate) of:

- Type
- Size
- Speed
- Method of connection
- Bus type
- Type of case
- Device controllers
- Other cards.

Explain in non-technical language why you have selected each component by describing its characteristics and how they relate to the user's requirements.

If you are aiming for higher marks, you should use a range of information sources (not just the Internet) to find information, renegotiate the user's requirements if necessary and amend your specification. To reach the highest mark band you will need to justify your choice for each configuration by matching it to each user's key requirements. You will also need to consider compatibility, cost and availability and give advice on future-proofing.

Task 3

Your teacher will provide you with a system that need upgrading, what the user needs from the upgrade and suitable components to upgrade it.

Specify the components needed to upgrade the system to meet the identified need. For higher marks, you should consider the limitations imposed by the existing system and to achieve the highest mark band you should identify any additional components or reconfiguration needed.

Carry out the upgrade to the system by adding new components.

Carry out another upgrade, as specified by your teacher that requires you to replace one component with another.

Task 4

Either set up a help desk to solve hardware related problems that people may have, or your teacher will provide you with computers that have hardware problems. In either case:

- Use troubleshooting procedures to locate the faulty component
- Fix the problem if possible or refer it to an expert
- Keep a log of problems, what caused them and solutions.

Task 5

Evaluate the information sources you used to help you specify systems and upgrades. You should consider:

- How accurate the information is
- How up-to-date the information is
- How relevant the information is to your needs.

For higher marks you should compare the sources and to reach the highest mark band you will need to evaluate the sources critically.

Task 6

Evaluate your specification and your performance in specifying, upgrading and repairing systems.

To evaluate your specification you need to:

- Comment on how well each specification met the user's needs
- Identify the strengths of your specifications
- Identify any weaknesses in your specifications
- Consider feedback from the users
- Suggest how you would refine your specifications in the future.

To evaluate your own performance you need to consider:

- How you approached the tasks
- What went well with this approach
- What went badly with this approach
- What you would do differently if you had to do a similar task in future.

You should try to structure your report with suitable headings and sub-headings and check it carefully to correct errors in spelling, punctuation and grammar.