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IT Systems and user needs

Part of the Yodafone Project
Based on OCR Nationals (2010)



Learning outcomes

By completing this unit candidates will develop a thorough knowledge and understanding of the range of hardware and software available and will use this understanding to analyse user needs and make recommendations about an IT system and the software required to meet those user needs. They will acquire the knowledge required to make logical configuration changes to software, including the creation of macros. Candidates will be able to:

- select suitable hardware and software to meet the needs of a home user or small business
- spec a suitable system connected to the internet
- configure the operating system
- configure applications software
- create and edit macros to meet the needs of a user
- understand and carry out simple backup procedures.

Scenario

- Yodafone International is a mobile phone company based in the Dagobah system. In their main office there are a number of employees who help with the day-to-day running. Yodafone have planned to launch 12 new mobile phone shops around England. They have asked for a number of advertising materials to be create which include a TV advert, a radio advert and a booklet/magazine. Anne who has just started working in the office requires a computer to do her job. Yodafone have contacted you to research, purchase and install the machine based on Anne's requirements.
- Anne has been told that she will be responsible for maintaining and uploading the company's website. The website includes text, advertising banners and a large number of photos of mobile phones.
- Anne also has to type up all of the business's weekly meetings, this means that she will need to create and save lots of agendas, minutes and memos. Once she has created these documents she will need to email them to her boss and colleagues.
- The desk Anne has been given is fairly small so she needs a computer and monitor that doesn't take up a lot of space. Anne is left handed and suffers from RSI (pain) in her wrists.
- Anne knows that she will probably need a way of backing up all of her documents every week but doesn't know which program to use.
- Address: Yodafone House, Yodington, Yodaset, UK, YO1 DA2

Topics

- AO1 - Select suitable hardware and software to meet the needs of a home user or a small business.
- AO2 - Spec a computer system connected to the internet
- AO3 - Configure the operating system.
- AO4 - Configure applications software.
- AO5 - Create and edit macros to meet the needs of a user
- AO6 - Understand and carry out simple backup procedures

AO1 - Select suitable hardware and software to meet the needs of a home user or a small business.

	Pass	Merit	Distinction
A	Candidates identify the user and purpose for the required system They describe the hardware required including input, output, processor and storage. They describe suitable applications software. Not all the choices will be appropriate.	Candidates describe the user and purpose for the required system. They give a detailed description of the hardware required including input, output, processor and storage. A suitable operating system is identified and a detailed description of suitable applications software is given. Most choices will be appropriate.	Candidates explain the user and purpose for the required system. A detailed description of the hardware required including input, output, processor and storage with justification of their choices is given. A suitable operating system is identified and a detailed description of suitable applications software with justification of their choices is given. All choices will be appropriate.
B	Info: - In this task you will: - identify the user and purpose of the required system. - describe required hardware for the system. - describe required software for the system. Task: - Read the scenario carefully. - Complete worksheet Appendix 1a. - Save the worksheet in your unit 13 ao1 folder as UserRequirements	Info: - In this task you will: - describe the user and purpose of the required system. - give a detailed description of the required hardware for the system. - give a detailed description of the required software for the system. - identify a suitable operating system for the required system. Task: - Read the scenario carefully. - Complete worksheet Appendix 1a. - Save the worksheet in your unit 13 ao1 folder as UserRequirements	Info: - In this task you will: - explain the user and purpose of the required system. - give a detailed description of the required hardware for the system with justification of choices given. - give a detailed description of the required software for the system with justification of choices given. - identify a suitable operating system for the required system with justification of the choice given. Task: - Read the scenario carefully. - Complete worksheet Appendix 1a. - Save the worksheet in your unit 13 ao1 folder as UserRequirements

AO2 - Spec a computer system connected to the internet

	Pass	Merit	Distinction
A	Candidates use the internet or a specialist computer magazine to obtain one quote for a suitable computer meeting some of the identified hardware/software requirements.	Candidates use the internet or a specialist computer magazine to obtain two quotes for a suitable computer meeting most of the identified hardware/software requirements. The quotes are presented in a table to allow them to be compared. Candidates make a recommendation for the computer to be selected.	Candidates use the internet or a specialist computer magazine to obtain two quotes for a suitable computer meeting all of the identified hardware/software requirements. The quotes are presented clearly in a table to allow them to be compared. Candidates make a recommendation for the computer to be selected, justifying their choices.
B	Info: - In this task you will research and find a quote that will meet some of the identified hardware and software requirements. Task: - Complete worksheet Appendix 2a - Using either a magazine or an online store such as PcWorld, Ebuyer, Dabs, Scan, Novatech to find a computer that meets some of the identified hardware and software requirements. - If you use an online store you will either need to add all the items to your basket and print screen this as evidence or print of the individual product pages to build a quote.	Info: - In this task you will research and find two quotes that will meet most of the identified hardware/software requirements. Task: - Complete worksheet Appendix 2a - Using either a magazine or an online store such as PcWorld, Ebuyer, Dabs, Scan, Novatech to find two computers that meet most of the identified hardware and software requirements. - If you use an online store you will either need to add all the items to your basket and print screen this as evidence or print of the individual product pages to build a quote.	Info: - In this task you will research and find two quotes that will meet all of the identified hardware/software requirements. Task: - Complete worksheet Appendix 2a - Using either a magazine or an online store such as PcWorld, Ebuyer, Dabs, Scan, Novatech to find two computers that meet all of the identified hardware and software requirements. - If you use an online store you will either need to add all the items to your basket and print screen this as evidence or print of the individual product pages to build a quote.
C		Info: - In this task you will present the quotes in a table to allow them to be compared. Task: - Use worksheet Appendix 2b to present your quotes in a table. - Save the worksheet in your unit 13 ao2 folder as QuotesCompared	Info: - In this task you will present the quotes clearly in a table to allow them to be compared. Task: - Use worksheet Appendix 2b to present your quotes in a table. - Save the worksheet in your unit 13 ao2 folder as QuotesCompared
D		Info: - In this task you will make a recommendation for the computer to be selected. Task: - Use worksheet Appendix 2c to make your recommendation. - Save the worksheet in your unit 13 ao2 folder as QuoteRecommended	Info: - In this task you will make a recommendation for the computer to be selected and justify your choice. Task: - Use worksheet Appendix 2c to make your recommendation and justify your choice. - Save the worksheet in your unit 13 ao2 folder as QuoteRecommended

AO3 - Configure the operating system.

	Pass	Merit	Distinction
A	Candidates configure the operating system in at least four different ways. Most configuration changes are appropriate to user needs.	Candidates configure the operating system in at least five different ways. For most of the configuration changes, candidates will explain why they are appropriate to user needs.	Candidates configure the operating system in at least six different ways. They will explain why the configuration changes are appropriate to user needs.
B	Info: - In this task you will learn how to make configurations to the operating system to meet the needs of a user. - You will need administrative access to the Control Panel to make operating system changes. (To complete this task you will need to log on as a computer administrator.) Task: - Make four operating system configurations appropriate for the user needs. - e.g. Mouse Settings, screen saver, screen resolution, time zone. - Print screen a before and after shot to evidence each the changes. - Paste the print screens into a new word document and save this into your unit 13 ao3 folder as OSChanges	Info: - In this task you will learn how to make configurations to the operating system to meet the needs of a user. - You will need administrative access to the Control Panel to make operating system changes. (To complete this task you will need to log on as a computer administrator.) Task: - Make five operating system configurations appropriate for the user needs. - e.g. Mouse Settings, screen saver, screen resolution, time zone. - Print screen a before and after shot to evidence each the changes. - Paste the print screens into a new word document and save this into your unit 13 ao3 folder as OSChanges	Info: - In this task you will learn how to make configurations to the operating system to meet the needs of a user. - You will need administrative access to the Control Panel to make operating system changes. (To complete this task you will need to log on as a computer administrator.) Task: - Make six operating system configurations appropriate for the user needs. - e.g. Mouse Settings, screen saver, screen resolution, time zone. - Print screen a before and after shot to evidence each the changes. - Paste the print screens into a new word document and save this into your unit 13 ao3 folder as OSChanges
C		Info: - In this task you will explain why most of the OS configurations are appropriate. Task: - Using the sheet you used in the previous task annotate most of the print screens to explain why they are appropriate configurations.	Info: - In this task you will explain why all of the OS configurations are appropriate. Task: - Using the sheet you used in the previous task annotate most of the print screens to explain why they are appropriate configurations.

AO4 - Configure applications software.

	Pass	Merit	Distinction
A	Candidates carry out at least four different configurations on one or more types of applications software. Most configuration changes are appropriate to user needs.	Candidates carry out at least five different configurations on one or more types of applications software. For most of the configuration changes, candidates will explain why they are appropriate to user needs.	Candidates carry out at least five different configurations on at least two different types of applications software. They will explain why the configuration changes are appropriate to user needs.
B	Info: - In this task you will learn how to make configurations to applications software (e.g. Excel, Word, Photoshop etc) to meet the needs of a user. Task: - Make four application configurations appropriate for the user needs. - e.g. Autosave time, autosave location, developer tab, default file format. - Print screen a before and after shot to evidence each the changes. - Paste the print screens into a new word document and save this into your unit 13 ao3 folder as ApplicationChanges	Info: - In this task you will learn how to make configurations to applications software (e.g. Excel, Word, Photoshop etc) to meet the needs of a user. Task: - Make five application configurations appropriate for the user needs. - e.g. Autosave time, autosave location, developer tab, default file format. - Print screen a before and after shot to evidence each the changes. - Paste the print screens into a new word document and save this into your unit 13 ao3 folder as ApplicationChanges	Info: - In this task you will learn how to make configurations to applications software (e.g. Excel, Word, Photoshop etc) to meet the needs of a user. Task: - Make five application configurations appropriate for the user needs on at least two different types of application software. - e.g. Autosave time, autosave location, developer tab, default file format. - Print screen a before and after shot to evidence each the changes. - Paste the print screens into a new word document and save this into your unit 13 ao3 folder as ApplicationChanges
C		Info: - In this task you will explain why most of the application configurations are appropriate. Task: - Using the sheet you used in the previous task annotate most of the print screens to explain why they are appropriate configurations.	Info: - In this task you will explain why all of the application configurations are appropriate. Task: - Using the sheet you used in the previous task annotate most of the print screens to explain why they are appropriate configurations.

AO5 - Create and edit macros to meet the needs of a user

	Pass	Merit	Distinction
A	Candidates record a macro to automate a sequence of tasks and use one method to activate the macro. The macro functions as intended.	Candidates record a macro to automate a sequence of tasks in each of two different types of applications software. They will use two different methods to activate their macros. The macro functions as intended.	Candidates record a macro to automate a sequence of tasks in each of two different types of applications software. They will use three different methods to activate their macros. The macro functions as intended. Candidates will edit the code to change the function of the macro.
B	Info: - In this task you create a macro that automates a sequence of tasks and is activated using two methods. Task: - Open a blank new excel sheet - Check you have the developer tab - Record a new macro: - Name: Spellsave - Keyboard shortcut : Ctrl+Shift+S - Description: your name - You macro must: - spell-check the spreadsheet & save the spreadsheet as spellsave.xlsm (File Type: Excel Marco Enabled Workbook. - Stop the recording - View & print the macro code - Close the code and return to the spreadsheet - Insert a picture into the spreadsheet and right click and assign the spellsave macro to it (so it is activated when the user clicks on it) - Create print screen evidence showing you have assigned the macro and paste it into a new word document. - Print the evidence - Save the spreadsheet as an excel macro enabled worksheet called SpellSave.xlsm in your unit 13 ao5 folder	Info: - In this task you create a macro that automates a sequence of tasks and is activated using two methods. Task: - Open a blank new excel sheet - Check you have the developer tab - Record a new macro: - Name: Spellsave - Keyboard shortcut : Ctrl+Shift+S - Description: your name - You macro must: - spell-check the spreadsheet & save the spreadsheet as spellsave.xlsm (File Type: Excel Marco Enabled Workbook. - Stop the recording - View & print the macro code - Close the code and return to the spreadsheet - Insert a picture into the spreadsheet and right click and assign the spellsave macro to it (so it is activated when the user clicks on it) - Create print screen evidence showing you have assigned the macro and paste it into a new word document. - Print the evidence - Save the spreadsheet as an excel macro enabled worksheet called SpellSave.xlsm in your unit 13 ao5 folder	Info: - In this task you create a macro that automates a sequence of tasks and is activated using two methods. Task: - Open a blank new excel sheet - Check you have the developer tab - Record a new macro: - Name: Spellsave - Keyboard shortcut : Ctrl+Shift+S - Description: your name - You macro must: - spell-check the spreadsheet & save the spreadsheet as spellsave.xlsm (File Type: Excel Marco Enabled Workbook. - Stop the recording - View & print the macro code - Close the code and return to the spreadsheet - Insert a picture into the spreadsheet and right click and assign the spellsave macro to it (so it is activated when the user clicks on it) - Create print screen evidence showing you have assigned the macro and paste it into a new word document. - Print the evidence - Save the spreadsheet as an excel macro enabled worksheet called SpellSave.xlsm in your unit 13 ao5 folder
C		Info: In this task you will create a macro that automates a sequence of tasks and is activated using two methods. Task:	Info: In this task you will create a macro that automates a sequence of tasks and is activated using two methods. Task:

		• Open a blank new word document sheet • Check you have the developer tab • Record a new macro: ○ Name: Footprint ○ Keyboard shortcut : Ctrl+Shift+F ○ Description: your name • You macro must: ○ Insert a footer into the document containing fields for date, filename & page number & print the document (ignore any error message) • Stop the recording • View & print the macro code • Close the code and return to the spreadsheet • Insert a button on the QAT (Quick access toolbar) and assign the footprint macro to it (so it is activated when the user clicks on it) • Create print screen evidence showing you have added the macro to the QAT and paste it into a new word document. • Print the evidence • Save the document as an word macro enabled worksheet called FootPrint.docm in your unit 13 ao5 folder	• Open a blank new word document sheet • Check you have the developer tab • Record a new macro: ○ Name: Footprint ○ Keyboard shortcut : Ctrl+Shift+F ○ Description: your name • You macro must: ○ Insert a footer into the document containing fields for date, filename & page number & print the document (ignore any error message) • Stop the recording • View & print the macro code • Close the code and return to the spreadsheet • Insert a button on the QAT (Quick access toolbar) and assign the footprint macro to it (so it is activated when the user clicks on it) • Create print screen evidence showing you have added the macro to the QAT and paste it into a new word document. • Print the evidence • Save the document as an word macro enabled worksheet called FootPrint.docm in your unit 13 ao5 folder
D			Info: • In this task you will edit the code to change the function of the macro Task: • Open Spellsave.xlsm • View the macro code • Edit the code to change the location of where the macro saves the document • Print the code • Save the spreadsheet as an excel macro enabled worksheet called SpellSave2.xlsm in your unit 13 ao5 folder

AO6 - Understand and carry out simple backup procedures

	Pass	Merit	Distinction
A	Candidates explain basic backup procedures. Candidates carry out one backup procedure	Candidates explain a range of backup procedures using some correct terminology. Candidates carry out a range of backup procedures.	Candidates explain a wide range of backup procedures using correct terminology. Candidates carry out a wide range of backup procedures and explain their choice of backup procedure.
B	Info: - In this task you will learn and explain backup procedures. Task: - Complete worksheet Appendix 6a - Explain full-backup - Save the worksheet in your unit 13 ao6 folder as backupprocedures	Info: - In this task you will learn and explain a range of backup procedures using some correct terminology. Task: - Complete worksheet Appendix 6a - Explain full, incremental, explain differential backup - Backup locations - Save the worksheet in your unit 13 ao6 folder as backupprocedures	Info: - In this task you will learn and explain a wide range of backup procedures using some correct terminology. Task: - Complete worksheet Appendix 6a - Explain full, incremental, explain differential backup - Backup locations - backup patterns such as frequency, grandfather-father-son backup - backup file names (logical naming/dating system) - Save the worksheet in your unit 13 ao6 folder as backupprocedures
C	Info: - In this task you will carry out a backup procedures. Task: - You need to carry out one simple backup procedure. - e.g. simple file copy to USB backup, automatic MS-Office file duplication, email file to a friend, windows backup utility, backup to DVD - Print screen evidence and save it in worksheet Appendix 6b - Save the worksheet in your unit 13 ao6 folder as backupevidence	Info: - In this task you will carry out a range of backup procedures. Task: - You need to carry out three backup procedures. - e.g. simple file copy to USB backup, automatic MS-Office file duplication, email file to a friend, windows backup utility, backup to DVD - Print screen evidence and save it in worksheet Appendix 6b - Save the worksheet in your unit 13 ao6 folder as backupevidence	Info: - In this task you will carry out a wide range of backup procedures and explain your choices of backup procedure. Task: - To achieve Distinction level you need to carry out five backup procedures, explaining your choices - e.g. simple file copy to USB backup, automatic MS-Office file duplication, email file to a friend, windows backup utility, backup to DVD - Print screen evidence and save it in worksheet Appendix 6b - Save the worksheet in your unit 13 ao6 folder as backupevidence

Appendix 1a – User & Purpose

Task 1a Instructions • Give the aims and purpose of the system required by Anne. • To achieve Pass level this may be a simple list or statement. • To achieve Merit level you need to describe the user and purpose for the required system. • To achieve Distinction level you need to explain the user and purpose.	User & Purpose: What will Anne use her pc for?
Task 1b Instructions • Identify and describe the hardware required: ○ Input ○ output ○ processor ○ storage. • To achieve Pass level you must describe the hardware requirements. • To achieve Merit level you need to give detailed descriptions and your choices must appropriate. • To achieve Distinction level you also need to justify your choices.	Hardware Requirements (e.g. Processor, Ram, Hard Disk, Optical, Motherboard, Video , Sound , LAN, Monitor, Speakers, Printer, keyboard, mouse, scanner)
Task 1c Instructions • Identify and describe suitable applications software for the required system. • To achieve Pass level you must describe the applications software requirements. • To achieve Merit level you need to give detailed descriptions and your choices must be appropriate. • To achieve Distinction level you also need to justify your choices.	Software Requirements
Task 1d Instructions • Identify a suitable operating system for the user. • To achieve Merit level, your choice must be appropriate. • To achieve Distinction level you will also need to justify your choice.	Operating System Required

Appendix 1b

Aim & Purpose
Q1: What will Anne need a PC for?
Hardware: What equipment will Anne need to do her job?
Q2: Hardware > Input
Q3: Hardware > Output
Q4: Hardware > Storage
Q5: Hardware > Processing/Other
What programs will Anne need to do her job?
Q6: Software > Productivity
What Operating system will Anne need?
Q7: Software > OS
Q8: Additional

Which operating system is suitable for Anne?

Range	Name	Description
Vista		Vista Home: Vista Home is suitable for a family pc on a budget. It has all of the necessary features to run applications such as internet, Microsoft office, and games. All of the vista family feature better visual themes, increased security such as the new “user account control” and built firewall. The pc will search and run faster with automatic file indexing.
		Vista Home Premium: Vista Home premium is suitable for a high spec family pc. It has all of the necessary features to run applications such as internet, Microsoft office, and games. Home premium also features a new set of built-in games, and media centre software. All of the vista family feature better visual themes, increased security such as the new “user account control” and built firewall. The pc will search and run faster with automatic file indexing.
		Vista Business: Vista Business is suitable for a business environment. It has all of the necessary features to run applications such as internet, Microsoft office, and supports advanced productivity and connectivity allowing easier access to your files from multiple pc’s connected to a server. All of the vista family feature better visual themes, increased security such as the new “user account control” and built firewall. The pc will search and run faster with automatic file indexing.
		Vista Ultimate: Vista Business is suitable for a business or home environment. It has all of the necessary features to run applications such as internet, Microsoft office, games and supports advanced productivity and connectivity allowing easier access to your files from multiple pc’s connected to a server. Ultimate also features media centre software. All of the vista family feature better visual themes, increased security such as the new “user account control” and built firewall. The pc will search and run faster with automatic file indexing.
XP		XP Home: XP-Home is Suitable for the home environment as it features a wide range of productivity solutions. XP is full of built-in features such as firewall and games. Although XP has been around for a while many of its bugs have been fixed and is incredibly stable.
		XP Professional: XP-Professional is Suitable for the home/office environment as it features a wide range of connectivity and productivity solutions. XP is full of built-in features such as firewall, games and networking tools. XP professional can connect to a server to allow multiple logons, and file sharing. Although XP has been around for a while many of its bugs have been fixed and is incredibly stable.

Appendix 2a - Quote

Task 2a Instructions

- Use the Internet or a specialist computer magazine to obtain at least one quote for the system identified in Task 1.
 - (You could use a site such as www.pcworld.co.uk)
- To achieve Pass level you need to obtain one quote that meets some of the identified hardware and software requirements.
- To achieve Merit level you must obtain at least two different quotes that meet most of the identified requirements.
- To achieve Distinction level the quotes must meet all of the identified requirements.

Quote: (print-screen quote from internet or glue in from magazine here)

This quote meets **some/most/all** of the identified requirements.

(Don't forget to annotate your quote to say why and how it meets the requirements)

Appendix 2b – Comparison Table

Task 2b Instructions

- Present the two quotes in a table so that they can be easily compared.

Hardware Comparison Table:

	Quote 1 from Source – provide hardcopy	Quote 2 from Source – provide hardcopy
Processor		
Ram (Memory)		
Hard Disk (Hard drive)		
Optical (CD, DVD)		
Video card (Graphics)		
Sound card (Audio)		
LAN card (Networking)		

Input devices	Quote 1	Quote 2
Keyboard		
Mouse		
Scanner		

Output devices	Quote 1	Quote 2
Monitor		
Speakers		
Printer		

Software Extras (such as: operating system, antivirus, Office etc)		
Operating System		

<i>Word Processing</i>		
<i>Picture Editing</i>		
<i>Web Authoring</i>		
<i>Antivirus</i>		

Cost		
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Appendix 2c - Recommendation

Task 2c Instructions

- Based on the quotes obtained, make a recommendation for the computer system to be selected for Anne.
- To achieve Merit level you need to write down your recommendation.
- To achieve Distinction level you must justify your choice.

Recommendation:

I would recommend the quote from _____ because...

This quote suits Anne's requirements because...

Appendix 6a – Backup Procedures

Task 6a Instructions

- To achieve Pass level you need to explain basic backup procedures.
- To achieve higher levels you need to explain a range of different procedures, using correct terminology.

Backup Procedures: (Make sure you research & write not copy & paste your answers!)

Pass, Merit, Distinction:

- What is a full-backup?
- What is a restore?

Merit, Distinction:

- What is an incremental-backup?
- What is a differential-backup?
- Where should Anne store her backup once it has been created?

Distinction:

- How often should Anne backup her documents?
- What documents should Anne backup?
- Explain what the “grandfather, father, son backup” is and why it is useful.
- Explain what is meant by backup verification.

Appendix 6b – Backup Evidence

Task 6b Instructions

- Produce Print-screens to show you have created backups.
- To achieve Pass level you need to carry out one simple backup procedure.
- To achieve Merit level you need to carry out three backup procedures.
- To achieve Distinction level you need to carry out five backup procedures, explaining your choices.

Backup Evidence