

Cambridge **TECHNICALS LEVEL 2**

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IT

Unit 17

Using data analysis software

Model assignment

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Please note:

You can use this assignment to provide evidence for summative assessment, which is when the learner has completed their learning for this unit and is ready to be assessed against the grading criteria.

You can use this assignment as it is, or you can modify it or write your own; we give more information in this document under Guidance for tutors.

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Guidance for tutors on using this assignment

General

OCR Cambridge Technical model assignments are available to download from our website: www.ocr.org.uk.

The purpose of this assignment is to provide a scenario and model of tasks that are typical of how IT practitioners would use data analysis software, to enable you to assess your learner against the requirements specified in the grading criteria. The scenario and its tasks are intended to give a work-relevant reason for applying the skills, knowledge and understanding needed to achieve the unit.

This assignment will not instruct learners how to meet the highest grade. Whether learners achieve a pass, merit or distinction will depend on what evidence they produce.

You can modify the scenario we provide in this assignment to make it more relevant to your local or regional needs. Please refer to the information under 'Modifying the model assignment' later in this section.

You don't have to use this assignment. You can use it as a guide to help you to design your own assignment, and we provide an assignment checking service. You'll find more information on these matters in section 8 of the qualification handbook.

In the tasks, we'll refer to the format of evidence. Learners are **not** required to follow that format **unless** we tell them otherwise.

It's essential that the work every learner produces is their own. Please make sure you read through the information we give on authenticity in section 8 of the qualification handbook and make sure that your learners and any staff involved in assessment understand how important authenticity is.

We provide this assignment to be used for summative assessment. You must not use it for practice or for formative assessment.

Before using this assignment to carry out assessment

Learners will need to take part in a planned learning programme that covers the knowledge, understanding and skills of the unit.

When your learners are ready to be assessed, they must be provided with a copy of the following sections of this assignment:

- General information for learners
- Assignment for learners
- Evidence Checklist

They may carry out preparation prior to undertaking the tasks and there is no time limit for this.

When completing the assignment

You should use this assignment in conjunction with the unit specification and qualification handbook.

The assignment can take between 7 and 10 hours to complete.

The learner should choose the software to analyse the data i.e. this is not prescribed by the tutor.

Data files are provided in different file formats to allow the learner to make choices in relation to which software to use.

Resources to complete the tasks

There are resource requirements for this assignment. Every learner will need access to the following resources:

Date files have been provided:

- Westwood Tours Week 25 as a word processing file, a spreadsheet file and a database file.

Time

You should plan for learners to have 7–10 hours to complete this assignment.

Learners must be allowed sufficient time to complete all the tasks. The amount of time may vary depending on the nature of the tasks and the ability of individual learners. To help with your planning, against each of the tasks we've given an indication of how long it should take.

Learners can produce evidence in several sessions.

Format of evidence

Learners have to produce evidence that demonstrates how they have met the grading criteria. At the very least they must produce evidence that meets **all** of the pass criteria.

Please make sure your learners realise that missing just one pass criterion means they will not pass the unit, even if they have successfully met the merit and distinction criteria.

It's possible that certain formats for evidence can naturally cover several grading criteria and avoid the need for excessive amounts of evidence. For example, a report can be a good way to pull together evidence to meet several grading criteria.

For more guidance on generation and collection of evidence, please refer to the section 8 'Internal Assessment', in the qualification handbook.

Group work

This assignment hasn't been written to include group work.

After completing the assignment

Once the learner has submitted their work to you to be assessed, you must judge or 'mark' the work against the grading criteria for the unit and identify one grade for the unit. For further information about assessment, please refer to section 8 of the qualification handbook.

Your assessment decisions must be quality assured across the cohort of learners in your centre who are being entered for the same unit. This must be done through an internal standardisation process. We give information on internal assessment and standardisation in the qualification handbook.

Reworking the assignment

If you and the learner feel they've not performed at their best during the assessment, the learner can, at your discretion, improve their work and resubmit it to you for assessment. If a learner is working on improving their work before it is resubmitted, you and the learner must continue to make sure the work is the learner's own.

Any feedback you give to the learner must not direct them on how to improve their work. You can identify what area of the work could be improved but you cannot give the learner any details about how they could improve it. You must follow the guidelines given in section 8 of the qualification handbook under 'Authenticity of learner work'.

Modifying the model assignment

The tasks in this assignment allow learners access to the full range of grades detailed in the grading criteria of this unit.

If you modify this assignment you must **not** change the grading criteria provided in the tasks for the learner or in the evidence checklist. These grading criteria are taken from the unit.

You can modify the scenario to suit your local or regional needs and the tasks may be contextualised to match any changes you have made to the scenario. If you supply your own drawings to support a different scenario, these must be sufficiently detailed for learners to complete the tasks.

You can modify the type of evidence and the format it takes, unless we expressly state that evidence must take a specific format.

You must also make sure that you avoid discrimination, bias and stereotyping and support equality and diversity. For more information, please see the section 'Designing your own assignments for internally assessed units' in section 8 of the qualification handbook.

If modifications are made to the model assignment, whether to the scenario alone, or to both the scenario and individual tasks, it's your responsibility to make sure that all grading criteria can still be met and that learners can access the full range of grades.

If you're using this model assignment and delivering the Certificate you have an opportunity to secure meaningful employer involvement by working with an employer to modify it.

General information for learners

Q *What do I need to do to pass this assignment?*

A You need to produce evidence to meet the requirements of **all** the pass criteria for the unit this assignment relates to. If you miss just one pass criterion, you will not achieve this unit and will receive an unclassified result.

Q *What do I need to do if I want to get a merit or distinction for this assignment?*

A For a merit, you need to produce evidence to meet the requirements of **all** the pass criteria for the unit this assignment relates to **and** you need to produce evidence to meet **all** the merit criteria.

For a distinction, in addition to the above, you also need to meet **all** the distinction criteria for this unit.

Q *What help will I get?*

A Your tutor will support you when completing this assignment and will make sure that you know what resources or facilities you need and are allowed to use. We've given your tutor information about how much support they can give you.

Q *What if I don't understand something?*

A It's your responsibility to read the assignment carefully and make sure you understand what you need to do and what you should hand in. If you are not sure, check with your tutor.

Q *I've been told I must not plagiarise. What does this mean?*

A Plagiarism is when you take someone else's work and pass this off as your own, or if you fail to acknowledge sources properly. This includes information taken from the internet.

It's not just about presenting a whole copied assignment as your own; you will also be plagiarising if you use the ideas or words of others without acknowledgement, and this is why it's important to reference your work correctly (see Q&A below for more information on referencing).

Plagiarism has serious consequences; you could lose the grade for this unit or you may not be allowed to achieve the whole qualification.

Always remember that the work you produce must be your own work. You will be asked to sign a declaration to say that it is.

Q *What is referencing and where can I find out more information about it?*

A Referencing is the process of acknowledging the work of others. If you use someone else's words and ideas in your assignment, you must acknowledge it, and this is done through referencing.

You should think about why you want to use and reference other people's work. If you need to show your own knowledge or understanding about an aspect of subject content in your assignment, then just quoting and referencing someone else's work will not show that **you** know or understand it. Make sure it's clear in your work how you are using the material you have referenced **to inform** your thoughts, ideas or conclusions.

You can find more information about how to reference in *The OCR Guide to Referencing* available on our website: <http://www.ocr.org.uk/Images/168840-the-ocr-guide-to-referencing>

Q ***Can I work in a group?***

A This assignment hasn't been written to include group work.

Q ***Does my work for each task need to be in a particular format?***

A You can present your work in a variety of ways – it can be handwritten, word-processed, on video or in digital media. What you choose should be appropriate to the task(s) and your tutor can advise you about this. There may be times when you need proof that you have completed the work yourself: for example, if you do something during work placement that you want to use as evidence, the tutor might ask the employer to provide a witness statement.

Make sure you check the wording in each task carefully. For each task, we'll tell you if your evidence has to be in a specific format:

- If we use the word '**must**', for example 'You must produce a report' or 'Your evidence/work must include a diagram', then you must produce the work in the stated format.
- If we use the word '**could**', for example 'You could include sketches of your ideas' or 'You could do this by annotating your diagram', this means that you are not required to follow the format we have given, but you must make sure that the work you do produce allows you to demonstrate the requirements of the grading criteria.

If you are unsure about what evidence you need, please ask your tutor.

Q ***Can I ask my tutor for feedback on my work?***

A Yes, but they can't give you detailed feedback.

We have given your tutor instructions on what kind of feedback they can give you. For example, they are **not** allowed to tell you exactly what to do to make your work better, but they **can** remind you about what they've taught you and you can use this additional learning to try and improve your work independently. They can say what they've noticed might be wrong with your work, for example if your work is descriptive where an evaluation is required, but your tutor can't tell you specifically what you need to do to change it from a description to an evaluation – you will need to work out what you need to do and then do it for yourself.

Q ***When I have finished, what do I need to do?***

A If you have included the personal details (such as name, address or date of birth) of someone other than yourself in your work, this must be blanked out (anonymised) – your tutor will tell you how to do this. You don't need to do this for information contained in references.

You can complete the evidence checklist to show your tutor where they can find the evidence for each grading criterion in your work.

You should make sure your work is labelled, titled and in the correct order for assessing.

Hand in the work that you've completed for each task to your tutor. They might ask to see your draft work, so please keep your draft work in a safe place.

Q ***How will my work be assessed?***

A Your work will be marked by someone in your centre who has been authorised to do so. They will use the information in the grading criteria to decide which grade your work meets. The grading criteria are detailed in each unit and are also given in the tasks within this assignment. Please ask your tutor if you are unsure what the grading criteria are for this assignment.

Assignment for learners

Unit 17: Using Data Analysis Software

Scenario

Businesses use data and this must be accurate. Software can analyse the data to convert it into business information.

You will analyse some data for a client as part of your evidence for this unit and produce some meaningful information.

Progress Solutions for Business

Progress Solutions for Business is an existing organisation that offers administration services for businesses and organisations, as well as creating business solutions.

A client, Westwood Tours, requires a solution for its tour bookings. Tour bookings are offered to ships visiting ports in the UK. The majority of the information is held on paper-based records at the moment. It stores details about the tours that have been pre-booked by people and the prices for the tours.

Contact details are stored for the person making the booking and the tour that they have booked.

There are a maximum number of places available on each tour, with an adult price and a child price for each tour.

The information that must be produced includes:

- the number of adult bookings for each tour;
- the number of child bookings for each tour;
- if there are places available on each tour;
- the value of the sales of the bookings for each tour;
- the profit for each tour (value of sales less insurance and transport costs);
- the number of tours offered in each city;
- the average number of bookings for each city;
- charts to represent the data.

Data files for

- list of bookings for week 25
- list of tours for week 25

are each provided in Excel, Access and Word formats. You choose which file(s) you want to use.

Costs:

Fixed Costs Per Tour			
Coach Size (maximum number of passengers)	40	54	108
Transport Costs	£100	£160	£300
Insurance costs per trip is £85			

Sample layout of analysis requirements provided by Westwood Tours:

Westwood Tours
Week number 25

A table to show the fixed costs per tour (coach size, transport costs, insurance costs)

TOUR DETAILS					BOOKINGS					
TOUR REF	TOUR DESCRIPTION	ADULT PRICE	CHILD PRICE	MAXIMUM NUMBER	ADULT	CHILD	ANY SPACES AVAILABLE	NUMBER OF SPACES AVAILABLE	TOTAL SALES	REVENUE
Southampton										
SWIN4	Windsor				Calculated values					
etc										

Analysis of data to show:

- the number of tours offered for each destination (Edinburgh, Hull, etc)
- the average number of adult bookings and child bookings for each destination (Edinburgh, Hull, etc)

Task 1: Data, data everywhere

(This task should take between 1 and 1½ hours.)

Learning Outcome 1: Understand the data used by business

Your task is to: produce a leaflet, or other format of your choice, to outline the types and sources of data used by business. You must describe the characteristics which are important when deciding what data is appropriate for a particular business need, such as tour bookings, using examples. Finally, you will need to explain what impact poor data could have on a business.

Pass	Merit	Distinction
P1: Outline types and sources of data used by business		
P2: Describe the characteristics of data	M1: Explain how poor data can impact on a business	
Evidence		
<p>A report, pamphlet or blog.</p> <p>This should include:</p> <ul style="list-style-type: none"> • types of data; • sources of data; • purpose of data; <p>using examples to illustrate your evidence.</p> <p>A presentation, a pamphlet or recorded oral presentation.</p> <p>This must include:</p> <ul style="list-style-type: none"> • identification of a business need; • characteristics of data for the business need, including when different characteristics are more important than others; • the impact of poor data in a business. 		

Task 2: What software to use?

(This task should take between 1 and 1½ hours.)

Learning Outcome 2: Be able to select software to analyse data for business purposes

Your task is to: select the type of software you wish to use to analyse the data for the tour company, Westwood Tours, based on the information provided in the assignment scenario. You should review the features of the software and the functions of the software that make it an appropriate choice.

Pass	Merit	Distinction
P3: Select software to analyse data for a specified business need	M2: Review the features and functions of the selected software	
Evidence		
<p>A presentation or report.</p> <p>This must include:</p> <ul style="list-style-type: none">• the type of software to be used to analyse data for the tour bookings for Westwood Tours, as outlined in the assignment scenario;• features within the software which make it appropriate to use;• functions available within the software which make it appropriate to use.		

Task 3: Analyse the data

(This task should take between 4 and 5½ hours.)

Learning Outcome 3: Be able to use software to analyse data for business purposes

Your task is to: analyse the data provided by Westwood Tours for its tour bookings using the information provided in the assignment scenario.

Pass	Merit	Distinction
P4: Select data for analysis for a specified business need		D1: Justify the choice of selected data for a specified business need
P5: Analyse the selected data for a specified business need	M3: Document the outcomes of data analysis	
Evidence		
<p>The file saved in the software application used to analyse the data.</p> <p>This must include:</p> <ul style="list-style-type: none"> only the data necessary to carry out the analysis; evidence that it has been saved in an appropriate file format for the software. <p>A report or presentation.</p> <p>This must include justification for:</p> <ul style="list-style-type: none"> including particular items of data in the software file; excluding particular items of data from the software file. <p>Screenshots of the analysis, a screen capture video of the steps in the analysis, copies of functions, macros and formatted data.</p> <p>This must include:</p> <ul style="list-style-type: none"> the file containing the analysis; an indication of what analysis has been carried out; where the analysis is within the file. <p>A report, a presentation, audio/visual presentation.</p> <p>This must include:</p> <ul style="list-style-type: none"> the outcomes of the analysis. 		

Task 4: Present the results

(This task should take between 1 and 1½ hours.)

Learning Outcome 4: Be able to present the results of data analysis to the client

Your task is to: present your solution to Westwood Tours i.e. the information you have produced from the data and inform Westwood Tours about how it can use your solution to help it with decision making in the future.

Pass	Merit	Distinction
P6: Present the outcomes of data analysis to the business		D2: Recommend use of the analysis model to support future business decision making
Evidence		
<p>A presentation to the business, a report or a webinar.</p> <p>This must include:</p> <ul style="list-style-type: none">• your analysis of the data;• what information you have produced for Westwood Tours;• recommendations from your solution, in terms of how it will support Westwood Tours to make future business decisions. <p>Note - Your tutor may be the representative from Westwood Tours.</p>		

Evidence Checklist

OCR Level 2 Cambridge Technicals in IT Unit 17: Using data analysis software

LEARNER NAME:

For Pass have you: (as a minimum you have to show you can meet every pass criterion to complete the unit)	Where can your tutor find the evidence? Give page no(s)/digital timings, etc.
P1: Outlined types and sources of data used by business?	
P2: Described the characteristics of data?	
P3: Selected software to analyse data for a specified business need?	
P4: Selected data for analysis for a specified business need?	
P5: Analysed the selected data for a specified business need?	
P6: Presented the outcomes of data analysis to the business?	

For Merit have you:	Where can your tutor find the evidence? Give page no(s)/digital timings, etc.
M1: Explained how poor data can impact on a business?	
M2: Reviewed the features and functions of the selected software?	
M3: Documented the outcomes of data analysis?	

For Distinction have you:	Where can your tutor find the evidence? Give page no(s)/digital timings, etc.
D1: Justified the choice of selected data for a specified business need?	
D2: Recommended use of the analysis model to support future business decision making?	

To find out more

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