

BTEC Assignment Brief

Qualification	Pearson BTEC Level 1/Level 2 Tech Award in Digital Information Technology
Component number and title	2: Collecting, Presenting and Interpreting Data
Learning aims	<p>A: Investigate the role and impact of using data on individuals and organisations</p> <p>B: Create a dashboard using data manipulation tools</p> <p>C: Draw conclusions and review data presentation methods</p>
Assignment title	Data Collection and Analysis
Assessor	
Issue date	
Hand in deadline	

Vocational Scenario or Context	<p>Many organisations collect data to help them improve their products or services.</p> <p>Data can be collected in a variety of ways, in this scenario, there are two sets of data collected in different ways by two different companies.</p> <p>The first set of data has been collected by a supermarket. It has been collected automatically by the checkout computer system.</p> <p>The data is about customers who have loyalty cards and was collected over a limited period of time. The supermarket estimates that about 90% of its customers have a card.</p> <p>The data is in the file called Supermarket_data.</p> <p>The data contains:</p> <ul style="list-style-type: none"> • Customer Number • Date • Time • Amount Spent • Gender • Self Checkout
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	<ul style="list-style-type: none"> • Minutes to Process. <p>The second set of data is for the holiday company. The data has been collected from various sources: the company's booking system database, the electoral roll and a specialist survey company who contacted the customers via an email survey.</p> <p>The company has calculated that only 50% of the customers who were contacted responded to the survey.</p> <p>The data is in the file called Holiday_data.</p> <p>The data contains:</p> <ul style="list-style-type: none"> • Customer email • Date of Survey • Gender • Holiday Date • Holiday Duration (days) • Holiday Type • Accommodation Rating • Booking Process Rating • Transport • Transport Rating • Recommend to Friend • Price Paid <p>The ratings are on a scale of 1 to 10, one being the lowest 10 being the highest.</p> <p>In tasks 2 and 3 you will choose ONE of these files to analyse by creating a fully efficient and comprehensive dashboard using data manipulation tools.</p> <p>You will be using your dashboard to draw conclusions and make recommendations based on your analysis of the data.</p>
<p>Task 1</p>	<p>In this task you should first study the data files so that you are familiar with the data that has been collected.</p> <p>You should explore:</p> <ul style="list-style-type: none"> • the characteristics of data and information • the data collection methods and features used • the quality of the data collected by each company and how this impacts on decision making • the reliability of the data • how the data might be used by the company to make decisions. <p>You should then provide a comprehensive detailed assessment of:</p>

	<ul style="list-style-type: none"> • how the data was collected by the companies • the features of the collection method used • how reliable are the methods of collection that were used. • the factors that might affect the quality of the data • suggest how the data might be of use to the company • suggest ways that data collection might be improved • how the collection of this data might affect the privacy of customers.
Checklist of evidence required	A word-processed document.
Criteria covered by this task:	
Criteria reference	To achieve the criteria you must show that you are able to:
A.2D1	Assess data collection methods and features used and how they affect the quality of data and decision making in two sectors, drawing detailed justified conclusions.
A.2M1	Discuss data collection methods and features used and how they affect the quality of data and decision making in two sectors, drawing justified conclusions.
A.2P1	Explain how data collection methods and their features affect the quality of data across two sectors, with relevant examples.
A.2P2	Explain how data is used to make decisions across two sectors, with relevant examples.
A.1M1	Describe data collection methods across two sectors.
A.1M2	Describe data that is used to make decisions across two sectors.
A.1P1	Identify data collection methods across two sectors.
A.1P2	Identify data that is used to make decisions across two different sectors.

Task 2	<p>For this task you have been given two data files:</p> <ul style="list-style-type: none"> • Holiday_data • Supermarket_data <p>Choose ONE of these files to create a fully efficient and comprehensive dashboard using data manipulation tools.</p> <p>A dashboard is way to simplify and display important information from a set of data in one, easy-to-access place. Your dashboard should display a summary of the data in the form of tables, charts, charts and gauges</p> <p>Your dashboard should identify patterns and trends in the data.</p> <p>You should:</p> <ul style="list-style-type: none"> • import the data into a spreadsheet • apply data processing methods to manipulate the data • use formulae to produce data summaries • produce a dashboard to select and display data summaries.
Checklist of evidence required	<p>A written document containing screenshots that:</p> <ul style="list-style-type: none"> • shows the completed dashboard • the choice of presentation features used • the data manipulation tools used.
Criteria covered by this task:	
Criteria reference	To achieve the criteria you must show that you are able to:
B.2D2	Select and use relevant methods to effectively and accurately manipulate data and produce a fully efficient and comprehensive dashboard.
B.2M2	Select and use relevant methods to effectively and accurately manipulate data and produce an effective dashboard that clearly summarises data.
B.2P3	Select and use methods to carry out some manipulation of data, which is largely accurate.
B.2P4	Produce an appropriate dashboard that clearly summarises data.
B.1M3	Use methods to carry out some manipulation of data, with some inaccuracies.

B.1M4	Produce a dashboard that produces a limited summary of data, with some appropriate presentation methods.
B.1P3	Use methods to carry out limited manipulation of data, with a limited degree of accuracy.
B.1P4	Produce a dashboard that produces a limited summary of data.

Task 3	<p>In this task you will assess the effectiveness of your dashboard's presentation of data, draw conclusions and review the data presentation methods used.</p> <p>Use dashboard to:</p> <ul style="list-style-type: none"> • identify trends, patterns and possible errors in the data • draw conclusions on patterns and trends in the data • make a wide range of recommendations based on your analysis. <p>Produce a document using screenshots from your dashboard that:</p> <ul style="list-style-type: none"> • uses a wide range of relevant examples to support your conclusions • makes appropriate recommendations • assesses how the presentation features of the dashboard influences its effectiveness.
Checklist of evidence required	<p>A word-processed document that uses screenshots from your dashboard to:</p> <ul style="list-style-type: none"> • identify patterns and trends in the data • make appropriate recommendations • support your conclusions • assess how effective the presentation of the data on the dashboard is.

Criteria covered by this task:	
Criteria reference	To achieve the criteria you must show that you are able to:
C.2D3	Assess the effectiveness of the dashboard's presentation of data and how it affects the conclusions drawn and the recommendations made, using justified examples.

C.2M3	Analyse how the dashboard's presentation of data influences the conclusions drawn and the recommendations made, using relevant examples.
C.2P5	Use the dashboard to draw conclusions, with some appropriate recommendations.
C.2P6	Explain the methods used to present data so that it can be clearly Understood, with detailed examples.
C.1M5	Use the dashboard to outline some trends in the data.
C.1M6	Describe the methods used to present data so that it can be understood, with brief examples.
C.1P5	Use the dashboard to identify trends in the data.
C.1P6	Identify the methods used to present data.

Sources of information to support you with this Assignment	<p>Software manuals and guidance on how to use Excel tools and features.</p> <p>YouTube videos https://www.youtube.com/</p> <p>How to Use Excel - Excel Tutorials for Beginners</p> <p>How to create a dashboard in Excel</p> <p>https://www.youtube.com/watch?v=RM8T1eYBjQY</p> <p>Excel 2016 For Dummies – free pdf version</p> <p>http://www.gcflearnfree.org – for training on any software topic including Excel and Google sheets</p>
Other assessment materials attached to this Assignment Brief	<p>Data Files:</p> <p>Holiday_data</p> <p>Supermarket_data</p>

Notes to the assessor (*to be removed before distribution to learners*):

Approach to teaching and learning to support learners to 'get it right first time'	<p>Pearson expects that before this assignment brief is distributed to learners they should have already:</p> <ul style="list-style-type: none"> • Attempted formative assessment tasks that replicate important elements of the activities to be carried out in this assessment. • Received feedback from their teacher on the completion of formative assessment activities including what they did well and
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	<p>how they can further improve including both the quality of their work and the way they went about their work.</p> <p>It would be beneficial for learners to explore the individual elements of the assignment tasks before attempting to put them all together in a mock assessment.</p> <p>The above will help learners to do their best first submission of this assessment and reduce the likelihood of the need for a resubmission opportunity.</p>
The scenario	<p>The scenario can be adapted to any situation that would allow the learner to carry out the tasks.</p> <p>Care should be taken to ensure that the requirements of the tasks will allow the learner to meet the assessment criteria without under or over-assessing the learner.</p> <p>The assignment provides a realistic vocational context for the learning aims. It would not be good practice to artificially force this assignment into a 'vocational role' that is either:</p> <ol style="list-style-type: none"> a) not realistic to the level of the learner/qualification b) not directly relevant to the qualification.
The task	<p>Ensure that the task set is holistic and allows the learner to be assessed against what is a continuum of effectiveness. Learners should not be asked to complete separate tasks for each criterion.</p> <p>Evidence submitted must be produced by the individual learner, and not as a contribution as part of a team. This means the learners must produce a presentation or written report of their own.</p> <p>Centres are free to adapt the tasks providing the requirements of the assessment is maintained and are encouraged to use the Pearson Assignment Checking Service if they do so. Assignment checking service link: https://qualifications.pearson.com/en/support/Services/assignment-checking-service.html</p>
Evidence checklist	<p>It is important that the evidence provided can be independently authenticated by both an Internal Verifier (IV) and a Standards Verifier (SV). It is, therefore, required that if a verbal presentation takes place then it is supported with learner presentation notes and an observation record which details information given by the learner to support the award of identified and clearly referenced criteria which is not evident in the written report.</p>
Sources of information to support you with this Assignment	<p>Sources of information should directly support the learner to complete the assignment. Sources of information are not intended to form additional teaching and learning. It is advisable that a mixture of sources will give learners the best opportunity to achieve their best.</p>

Other materials	Data Files: Holiday_data Supermarket_data
Your assessment decision	You will notice that the assessment criteria form a 'continuum of effectiveness'. Therefore, when assessing learners' work, rather than assessing the achievement of each criterion separately you should start at the distinction criteria and work backwards to find the point at which the learner meets the targeted criteria.