



# T Level Technical Qualification in Digital Business Services

Employer set project (ESP)

## Core skills

Digital Business

Mark scheme

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## Mark scheme

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# Marking guidelines

## General guidelines

You must apply the following marking guidelines to all marking undertaken throughout the marking period. This is to ensure fairness to all students, who must receive the same treatment. You must mark the first student in exactly the same way as you mark the last:

The mark scheme must be referred to throughout the marking period and applied consistently; do not change your approach to marking once you have been standardised.

Reward students positively giving credit for what they have shown, rather than what they might have omitted.

Utilise the whole mark range and always award full marks when the response merits them.

Be prepared to award 0 marks if the student's response has no creditworthy material.

Do not credit irrelevant material that does not answer the question, no matter how impressive the response might be.

If you are in any doubt about the application of the mark scheme, you must consult with your team leader or the chief examiner.

## Guidelines for using extended response marking grids

Extended response marking grids have been designed to award a student's response holistically for the relevant task or question and should follow a best-fit approach. The grids are broken down into bands, with each band having an associated descriptor indicating the performance at that band. You should determine the band before determining the mark.

When determining a band, you should look at the overall quality of the response and reward students positively, rather than focussing on small omissions. If the response covers aspects at different bands, you should use a best-fit approach at this stage and use the available marks within the band to credit the response appropriately.

When determining a mark, your decision should be based on the quality of the response in relation to the descriptors. Standardisation materials, marked by the chief examiner, will help you with determining a mark. You will be able to use exemplar student responses to compare to live responses, to decide if it is the same, better, or worse.

To support your judgement, the indicative content is structured in such a way that mirrors the order of the different points within the band descriptors. This will allow you to use the 2 in conjunction with each other by providing examples of the types of things to look for in the response, for each descriptor. In other words, the indicative content provides you with a starting point of possible examples and the bands express the range of options available to you in terms of the quality of the response. You should apply the standards that have been set at the relevant standardisation event in a consistent manner. You are reminded that the indicative content provided under the marking grid is there as a guide, and therefore you must credit any other suitable responses a student may produce. It is not a requirement either that students must cover all of the indicative content to be awarded full marks.

# Task 1

(18 marks)

This includes 2 marks for English skills, which have a separate mark scheme.

## Project management tool: Gantt chart

Band	Mark	Descriptor
4	7–8	The student provides a response to the task that: <ul style="list-style-type: none"> <li>demonstrates an excellent application of project management tools that is comprehensive and highly detailed</li> <li>has an excellent design with a highly logical structure and communicates aspects of a project lifecycle in a comprehensive and highly detailed way</li> </ul>
3	5–6	The student provides a response to the task that: <ul style="list-style-type: none"> <li>demonstrates a good application of project management tools that is clear and mostly detailed</li> <li>has a good design with a mostly logical structure and communicates aspects of a project lifecycle in a mostly detailed way</li> </ul>
2	3–4	The student provides a response to the task that: <ul style="list-style-type: none"> <li>demonstrates a reasonable application of project management tools that has some detail, though this may be underdeveloped</li> <li>has a reasonable design with some logical structure and communicates aspects of a project lifecycle with some detail, though this may be underdeveloped</li> </ul>
1	1–2	The student provides a response to the task that: <ul style="list-style-type: none"> <li>demonstrates a limited application of project management tools that is mostly unclear and has minimal detail</li> <li>has a limited design with an unclear structure and communicates aspects of a project lifecycle in an unclear way that are mostly irrelevant</li> </ul>
0	0	No creditable evidence.

## Indicative content

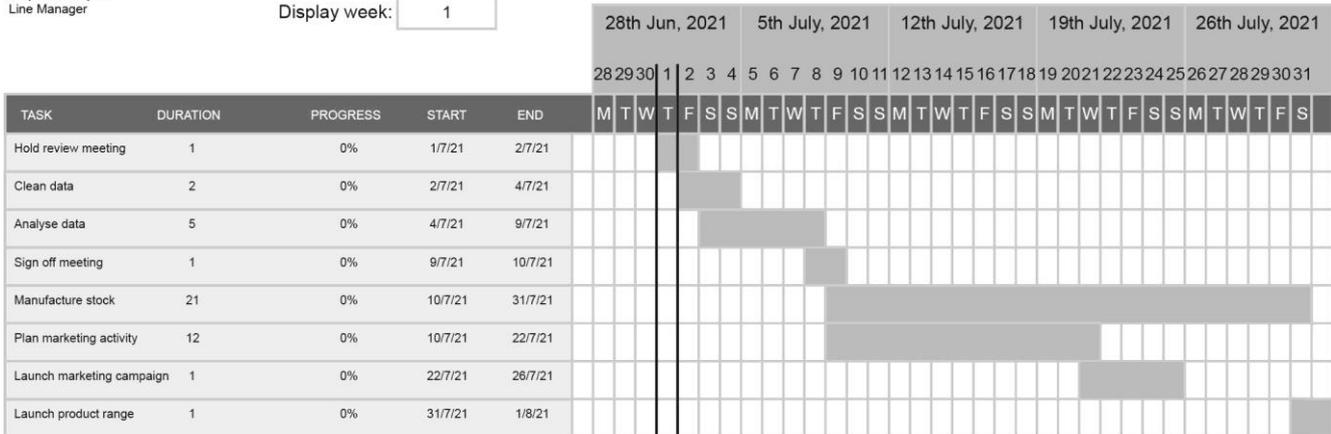
Below is an example of a Gantt chart that would be placed in the top band. It includes key design elements, which are further exemplified afterwards, and reflects a highly logical structure. When deciding a placement within a band, consideration should be given to what design features are included (from the list below) and what are missing. Placement within the higher bands should include all the features (though presentation may be slightly different) as illustrated below. Responses that include fewer features would therefore be placed lower.

Stay Cool Project

Stay Cool Project  
 Line Manager

Project start:

Display week:



The design features, as illustrated in the example provided, include:

- colour, for example:
  - a student may include a colour scheme that provides additional context and meaning to their Gantt chart:
    - this may include a key to explain the meaning of this choice
  - consistent colour scheme, which has a suitable contrast and the writing is still readable
- font, for example, the font may be chosen to reflect the professional nature of the document
- use of appropriate shapes
- structure flows appropriately, for example:
  - vertically (top to bottom)
  - horizontally (left to right)

This brief focuses on the dependencies aspect of the project life cycle. It may include:

- how project considerations relate to each other, for example, the key stakeholders and company aims, and objectives may be identified towards the start and the Gantt chart should indicate that other entries are dependent on this action
- whether any entries require to loop back to feed back into other entries, for example, ensuring all required stakeholders are identified to support the business aims and objectives
- if certain actions need to be repeated as a result of the outcome of a particular project consideration, for example, revisiting of potential risks when the business’s use of data analytics has been completed

**Note:** the above is not an exhaustive list; credit should be given to other suggestions as appropriate to the scenario of the brief.

**Email to line manager:**

Band	Mark	Descriptor
4	7–8	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>• makes judgments when project planning that are excellent and supported with highly detailed and highly relevant links to the scenario of the brief, supported by sustained application of highly relevant technical terminology</li> <li>• demonstrates an excellent understanding of potential risks and issues, which is supported with highly detailed and relevant links to the scenario of the brief</li> </ul>
3	5–6	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>• makes judgments when project planning that are good and supported with mostly detailed and mostly relevant links to the scenario of the brief, supported by mostly consistent application of relevant technical terminology</li> <li>• demonstrates a good understanding of potential risks and issues, which is supported with mostly detailed and relevant links to the scenario of the brief</li> </ul>
2	3–4	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>• makes judgments when project planning that are reasonable and supported with some relevant links to the scenario of the brief that have some detail, though this may be underdeveloped, supported by some application of technical terminology</li> <li>• demonstrates a reasonable understanding of potential risks and issues, which is supported with some relevant links to the scenario of the brief that have some detail, though this may be underdeveloped</li> </ul>
1	1–2	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>• makes judgments when project planning that are limited and supported with minimal links to the scenario of the brief, that lack detail and are supported by minimal application of technical terminology</li> <li>• demonstrates a limited understanding of potential risks and issues, which is supported with minimal links to the scenario of the brief that lack detail</li> </ul>
0	0	No creditable evidence.

**Indicative content**

The project lifecycle focus for the scenario is project dependencies.

Students may make different decisions when project planning (as illustrated in the Gantt chart and justified in the email). Credit should be given for the strength of their decisions and justifications.

Possible judgements may include:

- the relationship and/or dependency of 2 or more of the entities within their Gantt chart

- the context that the steps bring to the other stages and/or the project as a whole
- issues that are not present in the diagram that may impact the project, for example, timescales
- company aims and objectives should take a priority placement in order to define the project parameters
- highlighting that steps of the project may be influenced with regard to importance and timescales by their predecessor/parent tasks

Potential risks and issues should be related to decisions taken by the student but may include:

- project delays caused by problems manufacturing the new product range
- issues collecting data on the new market segments and the applicability of historic data to this group
- levels of competition in the new market segments – will the firm be able to gain a foothold if there are strong incumbent firms?
- whether data can be cleaned and analysed within the given timescales
- unknown timescales
- General Data Protection Regulation (GDPR)/ Data Protection Act (DPA) 2018 – is the company aware of the regulatory requirements when working with data?
- stock management – has the company got the capacity to manufacture and store increasing levels of stock considering the planned growth?
- staffing capacity – has the company got enough staffing resource for the launch of both the new product ranges and the planned physical store?
- if there are any unidentified legal risks or issues

**Note:** The above is not an exhaustive list; credit should be given to other suggestions, as appropriate, to the scenario of the brief.

## Task 1 AO4: English skills

Band	Mark	Descriptor
2	2	English skills presented in the task: <ul style="list-style-type: none"> <li>• demonstrates a good understanding of spelling, punctuation and grammar that is mostly accurate</li> </ul>
1	1	English skills presented in the task: <ul style="list-style-type: none"> <li>• demonstrates a reasonable understanding of spelling, punctuation and grammar that has some accuracy, though errors may be present</li> </ul>
0	0	No creditworthy material.

## **Indicative content (English skills)**

The evidence produced should demonstrate the students' English skills and may include:

- constructing complex sentences, consistently and accurately
- using correct spelling, grammar, and punctuation

## Task 2(a)

(12 marks)

Band	Mark	Descriptor
4	10–12	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"><li>• demonstrates an excellent understanding of the fundamental characteristics of data (as relevant to the scenario of the brief), which is supported by comprehensive and highly detailed examples</li><li>• demonstrates an excellent understanding of possible applications of data within an organisation (as relevant to the scenario of the brief), which is supported by comprehensive, highly detailed examples</li><li>• makes judgements for why the proposed approach is suitable (in relation to the scenario of the brief) that are excellent and are highly relevant and detailed</li></ul>
3	7–9	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"><li>• demonstrates a good understanding of the fundamental characteristics of data (as relevant to the scenario of the brief), which is supported by mostly detailed examples</li><li>• demonstrates a good understanding of possible applications of data within an organisation (as relevant to the scenario of the brief), which is supported by mostly detailed examples</li><li>• makes judgements for why the proposed approach is suitable (in relation to the scenario of the brief) that are good and mostly relevant and detailed</li></ul>
2	4–6	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"><li>• demonstrates a reasonable understanding of the fundamental characteristics of data (as relevant to the scenario of the brief), which is supported by examples that have some detail, though may be underdeveloped</li><li>• demonstrates a reasonable understanding of possible applications of data within an organisation (as relevant to the scenario of the brief), which is supported by examples that have some detail, though may be underdeveloped</li><li>• makes judgements for why the proposed approach is suitable (in relation to the scenario of the brief) that are reasonable and have some relevance and detail</li></ul>

Band	Mark	Descriptor
1	1–3	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>• demonstrates a limited understanding of the fundamental characteristics of data (as relevant to the scenario of the brief), which is supported by examples that have minimal detail, and may be irrelevant</li> <li>• demonstrates a limited understanding of possible applications of data within an organisation (as relevant to the scenario of the brief), which is supported by examples that have minimal detail, and may be irrelevant</li> <li>• makes judgements for why the proposed approach is suitable (in relation to the scenario of the brief) that are limited and have some relevance and detail</li> </ul>
0	0	No creditable evidence.

## Indicative content

The fundamental characteristic of data focus for this brief is data types.

The response may include a range of approaches to sourcing and using data, which are linked to the business needs of Stay Cool. They may discuss types of data that are not provided in the data set for task 2(b). This is acceptable as they will only be expected to process the data sets when they are provided, as part of task 2(b). The intention of task 2(a) is for the student to outline what they believe would be an effective approach in terms of sourcing and using data, therefore, credit should be given for the strength of their decisions and justifications.

Whilst the student may include other possible sources of data, for example, employee, suppliers or financial; the following are more relevant to the scenario of the brief. When deciding placement within a band, consideration should be given to the appropriateness of the sources and strength of justifications offered.

Potential sources (and types) of data, possible applications and justifications may include:

- internal:
  - sales data:
    - possible application for Stay Cool: identifying how the trends with existing product lines will support promotion and stock management activities for the proposed physical store
    - possible justification: understanding which lines sell better will allow Stay Cool to change promotions and adjust stock to maximise cashflow and profit margins/reduce risk of holding stock that will not sell
    - however, online and physical sales may attract different types of customer, so the historical sales data may not give an entirely accurate picture
  - marketing data:
    - possible application for Stay Cool: identifying the results of past campaigns and how they relate to the brand image of the business, and how this might support the branding of the new physical store/new range of goods

- possible justification: the company will need a consistent brand image for its existing and new offerings in order to benefit from marketing economies of scale.
- customer data:
  - possible application for Stay Cool: identifying where repeat sales, cross-sells or up-sells could happen, can show trends and opportunities that Stay Cool should explore
  - possible justification: customers for the existing range may also be interested in the new range or be able to refer friends and family who might be interested in the range, providing an opportunity to leverage the existing customer database for new sales
- external:
  - competitors:
    - possible application for Stay Cool: understanding successes and mistakes of similar and competing businesses can inform activities within Stay Cool
    - key trends in the market such as the rise of 'glamping' may inform decisions such as how to design new products/the features that they require
    - possible justification: understanding where similar businesses are focussing efforts allows Stay Cool to benchmark against best practice and to compete effectively
  - sector/industry:
    - possible application for Stay Cool: analysing trends in the sales of camping equipment, such as the increased awareness of the environmental implications of disposable camping equipment
    - possible justification: understanding trends in consumer tastes/preferences allows the business to better respond to patterns of demand while also sustaining its brand image
  - market research:
    - possible application for Stay Cool: existing research on existing products and customers may also contain information that can be used to understand what potential customers might want. This data would also be useful in preparing for the opening of the new store
    - possible justification: can influence stocking lines in the proposed physical shop and promotions. This should be balanced by collecting new data about the customers that the business intends to target

**Note:** the above is not an exhaustive list; credit should be given to other suggestions, as appropriate to the scenario of the brief.

## Task 2(b)

(20 marks)

### Action 1:

Band	Mark	Descriptor
3	5–6	The student provides a response to the task that: <ul style="list-style-type: none"><li>demonstrates an excellent understanding of how to process and cleanse data, which is comprehensive and highly accurate</li><li>applies an excellent understanding of data modelling tools, which is comprehensive and highly accurate</li></ul>
2	3–4	The student provides a response to the task that: <ul style="list-style-type: none"><li>demonstrates a reasonable understanding of how to process and cleanse data, which has some accuracy, though may be underdeveloped</li><li>applies a reasonable understanding of data modelling tools, which has some accuracy, though may be underdeveloped</li></ul>
1	1–2	The student provides a response to the task that: <ul style="list-style-type: none"><li>demonstrates a limited understanding of how to process and cleanse data, which has minimal accuracy</li><li>applies a limited understanding of data modelling tools, which has minimal accuracy</li></ul>
0	0	No creditable evidence.

### Indicative content

The data set that requires cleansing (Stay Cool\_QA\_exports) contains a number of errors. These should be cleansed in order to create the entity relationship diagram (ERD). Some examples of the entries that require cleansing include:

- dates in different formats
- times in different formats
- numbers entered as words or stored as text

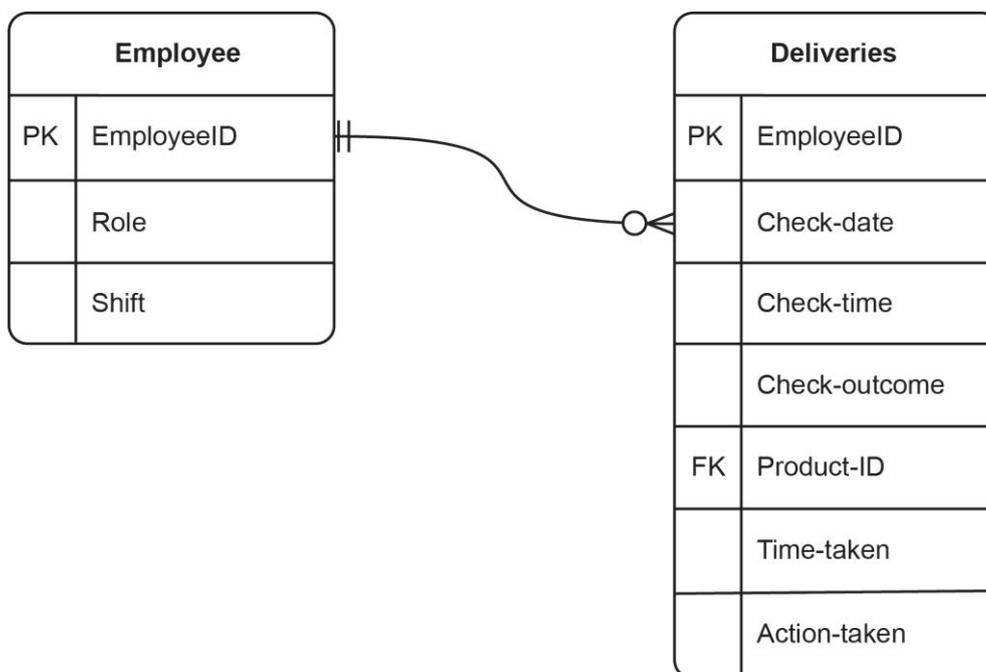
The specified data modelling tool for the brief this year is an ERD.

Below is an example of an ERD that would be placed in the top band. It includes 4 key areas of technical understanding, which are:

- assignment of primary key (PK)
- assignment of foreign key (FK)
- cardinality (meaning is appropriate for the nature of the relationship between the entities)

- inclusion of attributes, such as gender and age

When deciding a placement within the bands, consideration should be given to the number of features (as detailed above) that are included, as well as the level of accuracy. The lower number of features included by a response would result in a lower placement.



## Action 2

Band	Mark	Descriptor
3	5–6	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>demonstrates an excellent understanding of how to process data to create new data sets, which includes a wide range of variables/queries/formats (where appropriate) that is comprehensive and highly detailed</li> <li>demonstrates an excellent understanding of how to process data into a meaningful output by integrating different elements of the data sets, which is highly relevant for the needs of the client, in relation to the scenario of the brief</li> </ul>
2	3–4	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>demonstrates a reasonable understanding of how to process data to create new data sets, which includes some use of variables/queries/formats (where appropriate) that has some detail, though may be underdeveloped</li> <li>demonstrates a reasonable understanding of how to process data into a meaningful output by integrating different elements of the data sets, which has some relevance to the needs of the client, in relation to the scenario of the brief</li> </ul>
1	1–2	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>demonstrates a limited understanding of how to process data to create new data sets, which includes a minimal range of variables/queries/formats (where appropriate) that is limited and lacks detail</li> <li>demonstrates a limited understanding of how to process data into a meaningful output by integrating different elements of the data sets, which has little relevance to the needs of the client, in relation to the scenario of the brief</li> </ul>
0	0	No creditable evidence.

## Indicative content

Below is an image of a new data set that would be placed in the top band. It reflects a number of ways in which data has been processed and integrated, such as:

- integrating the Stay Cool aggregate (internal) and Office for National Statistics (ONS) (external) data sets
- identifying areas of contextual support (national spending habits (ONS) against recorded Stay Cool customers)
- use of appropriate data types, such as:
  - numeric – used for data made up of only numbers and for data that can be calculated
  - currency – used for data such as income, expenditure, profit, loss and to store price of products and orders
  - text – used for data made up of characters, can also include numeric characters

Students may select different parts of the data sets (Stay Cool\_QA\_exports, Sales\_data\_set, Stay Cool\_clients, ONS\_manufacturing\_activity) to process and integrate into meaningful output, though some of the essential features may include:

- data that relates to the manufacturing sector Stay Cool operates in
- data that relates to the shopping, spending, or purchasing decisions of the market demographics relevant to Stay Cool
- may identify missing parts of the data

**Note:** The above is not an exhaustive list; credit should be given to other ways data may be processed as appropriate to the scenario of the brief.

Example of data set:

Industry Overview - sports manufacturing - source - ONS													
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
	Sales	Sales											
UK manufacturer sales of individual products listed in this product group	£ 290,140	£ 321,259	£ 321,350	£ 358,993	£ 334,215	£ 342,989	£ 342,531	£ 310,144	£ 339,636	£ 355,624	£ 377,118	£ 375,045	
All other income	£ 2,447	S	£ 3,134	£ 9,643	£ 9,600	£ 4,896	£ 4,915	£ 5,604	£ 6,020	£ 4,266	£ 11,821	£ 39,113	
Total UK manufacturer sales of products in this product group	£ 292,587	S	£ 324,483	£ 368,635	£ 343,815	£ 347,885	£ 347,446	£ 315,748	£ 345,656	£ 359,890	£ 388,939	£ 414,158	
Merchanted goods	£ 137,521	£ 121,022	£ 93,085	£ 68,285	£ 57,711	£ 77,131	£ 100,983	£ 74,434	£ 76,396	£ 82,530	£ 92,470	£ 150,304	
Total turnover of businesses classified to this industry	£ 626,807	£ 576,092	£ 444,661	£ 582,023	£ 535,431	£ 570,132	£ 622,874	£ 562,045	£ 616,959	£ 641,820	£ 733,278	£ 878,290	

Quality check outcomes - source - internal QA data

	Count of Product ID
Fail	5
Pass	43
Grand Total	49

Current staffing - source - internal data

	Count
Manager	2
Operative	23
Supervisor	5
Total	30

Sales revenue by product line - most recent three months - source - internal data

Row Labels	Sum of Quant	Sum of Price
AW24K18P	£ 664.00	£ 800.00
AW26K18P	£ 1,006.00	£ 304.00
AW29K20P	£ 820.00	£ 708.00
AW33K14P	£ 753.00	£ 44.00
AW33K15P	£ 762.00	£ 341.00
AW33K19P	£ 822.00	£ 178.00
AW33K22P	£ 464.00	£ 188.00
AW36K13P	£ 548.00	£ 160.00
AW37K13P	£ 860.00	£ 416.00
AW38K17P	£ 651.00	£ 470.00
AW39K20P	£ 642.00	£ 653.00
AW41K19P	£ 449.00	£ 213.00
AW42K24P	£ 822.00	£ 632.00
AW44K17P	£ 668.00	£ 392.00
AW44K20P	£ 580.00	£ 196.00
AW45K19P	£ 798.00	£ 420.00
AW47K12P	£ 748.00	£ 234.00
AW47K18P	£ 590.00	£ 227.00
AW49K18P	£ 890.00	£ 76.00
AW49K20P	£ 910.00	£ 329.00
AW50K12P	£ 971.00	£ 135.00
AW51K22P	£ 704.00	£ 492.00
AW52K19P	£ 867.00	£ 65.00
AW53K21P	£ 680.00	£ 651.00
AW55K20P	£ 554.00	£ 122.00
AW56K21P	£ 862.00	£ 649.00
AW57K21P	£ 550.00	£ 468.00
AW63K16P	£ 935.00	£ 196.00
AW65K13P	£ 789.00	£ 651.00
AW66K19P	£ 448.00	£ 500.00
AW66K21P	£ 604.00	£ 652.00
AW67K18P	£ 894.00	£ 497.00
AW69K19P	£ 464.00	£ 207.00
AW70K21P	£ 774.00	£ 500.00
AW71K17P	£ 597.00	£ 513.00
AW73K12P	£ 896.00	£ 218.00
AW73K21P	£ 770.00	£ 147.00
AW75K24P	£ 655.00	£ 215.00
AW77K19P	£ 728.00	£ 217.00
AW77K20P	£ 699.00	£ 375.00
AW80K17P	£ 913.00	£ 102.00
AW84K24P	£ 856.00	£ 218.00
AW85K21P	£ 643.00	£ 102.00
AW86K15P	£ 873.00	£ 44.00
AW91K14P	£ 561.00	£ 102.00
AW91K23P	£ 717.00	£ 218.00
AW93K16P	£ 1,078.00	£ 102.00
AW93K19P	£ 487.00	£ 496.00
AW94K24P	£ 666.00	£ 276.00
Grand Total	£ 35,682.00	£ 16,111.00

Current customers by age - source - internal data			
Age	Male	Female	Total
16 - 24	800	1200	2000
25 - 35	1550	1400	2950
36 - 45	2500	2000	4500
46 - 55	3900	2950	6850
56 - 65	1800	1090	2890
66 and over	400	145	545
Total	10950	8785	19735

**Action 3:**

Band	Mark	Descriptor
4	7–8	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>demonstrates an excellent understanding of analysing and processing the data sets in order to create meaningful output that is comprehensive and highly detailed, supported with sustained application of highly relevant technical terminology</li> <li>makes judgments for how the different data has been selected and integrated into a new data set that is excellent, highly detailed, and highly relevant to the scenario of the brief</li> </ul>
3	5–6	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>demonstrates a good understanding of analysing and processing the data sets in order to create meaningful output that is mostly detailed, supported with mostly consistent application of relevant technical terminology</li> <li>makes judgments for how the different data has been selected and integrated into a new data set that is good, mostly detailed and relevant to the scenario of the brief</li> </ul>
2	3–4	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>demonstrates a reasonable understanding of analysing and processing the data sets in order to create meaningful output that has some detail, though may be underdeveloped, supported with some application of technical terminology that has some relevance</li> <li>makes judgments for how the different data has been selected and integrated into a new data set that is reasonable and has some detail and relevance to the scenario of the brief</li> </ul>
1	1–2	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>demonstrates a limited understanding of analysing and processing the data sets in order to create meaningful output that has minimal detail, and may be irrelevant, supported with minimal application of technical terminology</li> <li>makes judgments for how the different data has been selected and integrated into a new data set that is limited and has minimal detail and relevance to the scenario of the brief</li> </ul>
0	0	No creditable evidence.

## Indicative content

Students may choose to process the supplied data sets in a variety of ways in order to create their own, reflecting what they consider to be meaningful output, including any trends and/or patterns. This will vary as it will be dependent upon the ways they have chosen to process the data, but may include:

- customers tend to be male and aged between 25 and 55
- the business has more new customers than returning customers
- sales tend to be relatively high in London and relatively low in Scotland and Northern Ireland

Students may make different decisions when creating their new data sets and will therefore make varied justifications within the email. Credit should be given for the strength of their decisions and justifications.

Possible judgements on how the new data sets could meet the needs of Stay Cool (in relation to the brief) may include:

- differences in demographics of customers, for example gender and age and how this might influence the targeting of adverts
- differing profiles of returning and new customers and how this might influence activities such as loyalty schemes.
- more resources should be focused on the south of England than other parts of the UK

**Note:** The above is not an exhaustive list; credit should be given to other suggestions as appropriate to the scenario of the brief.

## Task 3

(22 marks)

This includes 2 marks for English and 4 marks for digital skills, which have separate mark schemes.

Band	Mark	Descriptor
4	13–16	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>• demonstrates that digital slides are constructed in an excellent and highly detailed manner, supported by sustained application of highly relevant technical terminology that is contextualised (where appropriate) for a non-technical audience in a comprehensive and highly detailed way</li> <li>• demonstrates an excellent explanation of how data analytics can be used (in relation to the scenario of the brief), supported by highly detailed and highly relevant visualisations, and includes examples of advantages and disadvantages that are comprehensive and highly detailed</li> <li>• demonstrates an excellent understanding of the possible impacts of business decisions on stakeholders (both internal and external) including reference to key factors that can influence those decisions that are comprehensive and highly detailed</li> <li>• demonstrates an excellent understanding of how the proposed solution meets the business needs, with an explanation of potential risks, mitigations and implications that are comprehensive and highly detailed</li> </ul>
3	9–12	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>• demonstrates that digital slides are constructed in a good and mostly detailed manner, supported by mostly consistent application of relevant technical terminology that is contextualised (where appropriate) for a non-technical audience in a mostly detailed way</li> <li>• demonstrates a good explanation of how data analytics can be used (in relation to the scenario of the brief), supported by mostly detailed and mostly relevant visualisations, and includes examples of advantages and disadvantages that are mostly detailed</li> <li>• demonstrates a good understanding of the possible impacts of business decisions on stakeholders (both internal and external) including reference to key factors that can influence those decisions that are mostly detailed</li> <li>• demonstrates a good understanding of how the proposed solution meets the business needs, with an explanation of potential risks, mitigations and implications that are mostly detailed</li> </ul>

Band	Mark	Descriptor
2	5–8	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>• demonstrates that digital slides are constructed in a reasonable manner with some detail, supported by some application of relevant technical terminology that is contextualised (where appropriate) for a non-technical audience with some detail, though may be underdeveloped</li> <li>• demonstrates a reasonable explanation of how data analytics can be used (in relation to the scenario of the brief), supported by visualisations that have some detail and relevance, and includes examples of advantages and disadvantages that have some detail</li> <li>• demonstrates a reasonable understanding of the possible impacts of business decisions on stakeholders (both internal and external) including reference to key factors which can influence those decisions that have some detail, though this may be underdeveloped</li> <li>• demonstrates a reasonable understanding of how the proposed solution meets business needs, with an explanation of potential risks, mitigations and implications that have some detail, though may be underdeveloped</li> <li>• is written in a reasonable manner, that is supported by some application of technical terminology that is sometimes contextualised for a non-technical audience with some clarity, though this may be underdeveloped</li> </ul>
1	1–4	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>• demonstrates that digital slides are constructed in a limited manner with minimal detail, supported by minimal application of relevant technical terminology that is contextualised (where appropriate) for a non-technical audience with minimal detail and may be irrelevant</li> <li>• demonstrates a limited explanation of how data analytics can be used (in relation to the scenario of the brief), supported by visualisations that have minimal detail and relevance, and includes examples of advantages and disadvantages that have minimal detail and may be irrelevant</li> <li>• demonstrates a limited understanding of the possible impacts of business decisions on stakeholders (both internal and external) including reference to key factors that can influence those decisions that have minimal detail and may be irrelevant</li> <li>• demonstrates a limited understanding of how the proposed solution meets business needs, with an explanation of potential risks, mitigations and implications that have minimal detail and may be irrelevant</li> </ul>
0	0	No creditable evidence.

## Indicative content

The digital slides may be constructed in a manner suitable for a non-technical audience by:

- having a clear structure, such as an introduction slide and clear sections
- organising and presenting information in an appropriate format, such as making sure that the slides are accessible, that information can be read easily and that it is not text heavy
- having a professional/consistent slide style, such as colour, fonts, headings
- using non-technical language and/or explaining technical language in an accessible way, such as avoiding technical jargon and explaining technical terms/concepts
- using a formal tone

The digital slides may incorporate different methods of visualising data, such as:

- graphs, for example, bar, line
- charts, for example, pie, funnel, area
- data tables
- infographics
- maps
- heat maps

The response may discuss a range of ways that data analytics could be used with associated advantages and disadvantages, in context to the brief, such as:

- advantages of using data:
  - to influence customers' engagement by introducing target marketing - for example, based on current customer data and promoting new products that are similar or complementary to previous orders
  - to inform decision-making – for example, to use in-store and online trends alongside competitor data to inform future marketing campaigns to attract new customers
  - forecasting (predictive analytics) – for example, to use data over time to predict stock requirements for future sales needs and linked to geographical location to ensure stores have sufficient products to fulfil demand and retention of customers
  - monitoring performance – for example, comparing own sales figures, profit and loss against other retailers using open data
  - operational management utilising internal data to set and monitor key performance indicators (KPIs) as part of a staff appraisal process whereby targeting of support or professional development needs are specific to the individual, allocating staff rotas based on footfall data, warehouse management based on online activity and sales
- disadvantages of using data:
  - extensive amount of data available and the ability to select and use what is appropriate or relevant to the business aims and objectives
  - real-time data that is in a constant state of change

- ability to visualise and present data in a readable form to be informative or useable by a non-technical audience

**Note:** The above is not an exhaustive list; credit should be given to other relevant evaluative points, as appropriate to the scenario of the brief.

The response may discuss impacts on internal and external stakeholders, such as:

- employees – staff will need to be recruited for the new physical store and more staff will be needed for manufacturing and selling new ranges. This might require new skills and so staff may need training. Management may need to be upskilled in order to manage the complexities of running a multi-modal business
- departments – the structure of the company may need to change to incorporate the new physical retail operation. The business may need to expand its marketing and operations teams to produce larger quantities of goods and sell them to a larger range of customers. It is likely that this can be done without significantly expanding the human resources department
- customers/consumers – new customers will be drawn into the business. Existing customers may find that as the business grows, the quality of service declines as the managers have to focus on a wider range of markets/products
- suppliers – as the business grows, suppliers may find that they gain larger orders. This may result in more pressure on suppliers, depending on their capacity. The business may need to switch suppliers if it wants to move to a more efficient stock management system

The response may consider the importance of mitigations for potential risks (in relation to the scenario) such as:

- confidentiality, integrity, and availability of information when working with personal and sensitive data:
  - the business is growing its customer database to facilitate more CRM activity. This may lead to an increased risk of breaches of data protection law
  - this also raises ethical issues. Existing customers may find their data being used to market new products
- control access to data – only available via business email accounts, passwords, access codes or multi-authentication process:
  - the business is opening physical retail that will include the use and collection of data as part of operations, increasing the possible points of failure in data management systems. As the business grows, the volume of data collected and the number of people with access to it will grow, increasing the risk of breaches
- code of conduct – all employees should be made to follow the relevant code of conduct, which outlines the rules, responsibilities and practices expected by Stay Cool to maintain the confidentiality and integrity of data including implications to the business if not adhered to:
  - financial loss of business/income if data is leaked or shared with competitors in breach of the Data Protection Act 2018 (in relation to marketing)
  - legal – prosecution or fines if personal data is misused or there is a breach of data as outlined in the GDPR
  - reputation and brand damage, which could result in poor customer perception and lack of customer retention, the opposite of what Stay Cool are trying to achieve

**Note:** The above is not an exhaustive list; credit should be given to other suggestions of potential risks, as appropriate to the scenario of the brief.

### Task 3 AO4: English skills

Band	Mark	Descriptor
2	2	English skills presented in the task: <ul style="list-style-type: none"> <li>demonstrates a good understanding of spelling, punctuation and grammar that is mostly accurate</li> </ul>
1	1	English skills presented in the task: <ul style="list-style-type: none"> <li>demonstrates a reasonable understanding of spelling, punctuation and grammar that has some accuracy, though errors may be present</li> </ul>
0	0	No creditworthy material.

### Indicative content

#### English

The evidence produced should demonstrate the students' English skills and may include:

- constructing complex sentences, consistently and accurately
- using correct spelling, grammar, and punctuation

### Task 3 AO4: Digital skills

Band	Mark	Descriptor
4	4	Digital skills presented in the task: <ul style="list-style-type: none"> <li>demonstrates excellent use of software application tools</li> </ul>
3	3	Digital skills presented in the task: <ul style="list-style-type: none"> <li>demonstrates good use of software application tools</li> </ul>
2	2	Digital skills presented in the task: <ul style="list-style-type: none"> <li>demonstrates reasonable use of software application tools</li> </ul>
1	1	Digital skills presented in the task: <ul style="list-style-type: none"> <li>demonstrates limited use of software application tools</li> </ul>

Band	Mark	Descriptor
0	0	No creditworthy material.

### **Digital**

The evidence produced should demonstrate the student's ability to utilise the technical applications features, this will vary depending on what the student has used to visualise the data, but may include:

- data inputted appropriately
- labelling of features to support communication
- ensuring the accessibility of design features, such as use of colour, the size of fonts
- ensuring appropriate file types to insert into digital slides

## Task 4

(8 marks)

Band	Mark	Descriptor
4	7–8	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>evaluates their own performance throughout the project, which is excellent and highly detailed, supported by excellent explanations of actions taken, proposed solutions and effectiveness of tools and/or techniques in relation to the scenario of the brief</li> <li>demonstrates an excellent application of appropriate reflective techniques to evaluate their own performance, which includes an excellent discussion of the need for further learning and development that is comprehensive and highly detailed</li> <li>is written in an excellent and highly detailed manner, highly appropriate for a technical audience, supported by sustained application of relevant technical terminology</li> </ul>
3	5–6	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>evaluates their own performance throughout the project, which is good and mostly detailed, supported by good explanations of actions taken, proposed solutions and effectiveness of tools and/or techniques in relation to the scenario of the brief</li> <li>demonstrates a good application of appropriate reflective techniques to evaluate their own performance, which includes a good discussion of the need for further learning and development that is clear and mostly detailed</li> <li>is written in a good and mostly detailed manner, mostly appropriate for a technical audience, supported by mostly consistent application of relevant technical terminology</li> </ul>
2	3–4	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>evaluates their own performance throughout the project, which is reasonable with some detail, though this may be underdeveloped, supported by reasonable explanations of actions taken, proposed solutions and effectiveness of tools and/or techniques in relation to the scenario of the brief, though this may be underdeveloped</li> <li>demonstrates a reasonable application of appropriate reflective techniques to evaluate their own performance, which includes a reasonable discussion of the need for further learning and development that has some detail, though this may be underdeveloped</li> <li>is written in a reasonable manner, with some appropriateness for a technical audience, supported by some application of relevant technical terminology</li> </ul>

Band	Mark	Descriptor
1	1–2	<p>The student provides a response to the task that:</p> <ul style="list-style-type: none"> <li>evaluates their own performance throughout the project, which is limited and has minimal detail, supported by limited explanations of actions taken, proposed solutions and effectiveness of tools and/or techniques in relation to the scenario of the brief</li> <li>demonstrates a limited application of appropriate reflective techniques to evaluate their own performance, which includes a limited discussion of the need for further learning and development that has minimal detail</li> <li>is written in a limited manner, with minimal appropriateness for a technical audience, supported by minimal or no application of relevant technical terminology</li> </ul>
0	0	No creditable evidence.

## Indicative content

Written for a technical audience, the evidence should demonstrate a reflective process and make use of appropriate technical terminology.

An appropriate reflective technique applied may be:

- Boud, Keogh and Walker’s 3-stage model of experience, process, and outcomes

An understanding of what was expected might include:

- how data analytics could be used to support Stay Cool in achieving their aims and objectives to increase customer engagement and retention, sales, and brand awareness

A discussion of how well the solution meets the needs of the brief may include:

- a proposal that demonstrates how the aims and objectives could be achieved using a combination of internal and external data sources to inform decision-making, such as marketing campaigns

An evaluation of the effectiveness of the tools and techniques used throughout the project may include:

- different methods of visualising data and the value in displaying data in the student’s chosen formats

An understanding of the need for further learning and development within the role of a digital data technician may include:

- continuous professional development (CPD) importance when working with digital data, as practices and analysis tools change so frequently and legislation must be adhered to

**Note:** The above is not an exhaustive list; credit should be given to other suggestions, as appropriate to the scenario of the brief, and/or reflective models.

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