



T Level Technical Qualification in Digital Business Services

Occupational specialism assessment (OSA)

Data Technician

Task 4

Assignment brief

T Level Technical Qualification in Digital Business Services Occupational specialism assessment (OSA) (603/6902/4)

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Assignment brief

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About this assignment

Introduction

This occupational specialism assessment (OSA) is set by NCFE and administered by your provider during a 3 week window. It contains 4 separate tasks which will be completed one after the other during this assessment window.

All 4 tasks will be completed under supervised conditions.

You must complete all tasks in this assignment independently. You are required to sign a declaration of authenticity to confirm that the work is your own. This is to ensure authenticity and to prevent potential malpractice and maladministration. If any evidence was found not to be your own work, it could impact your overall grade.

You will be given a copy of the assignment brief and any relevant supporting information with each task, so you do not have to memorise any information.

Timings

You have a total maximum time of 29 hours to complete all tasks within this assignment, and each task has the following number of hours to complete it:

Task 1 = 5 hours

Task 2 = 10 hours

Task 3 = 8 hours

Task 4 = 6 hours

Individual tasks must be completed within the timescales stated, but it is up to you to decide how long you spend on each part of the task; therefore you should manage your time appropriately.

Details on the separate marks available are provided in each task.

You should attempt to complete all of the tasks.

Read the instructions carefully.

Performance outcomes

Marks will be awarded against the skills and knowledge performance outcomes (POs) as follows:

Task 4

This is a single task and carries a total of 32 marks.

These are divided between the following performance outcomes:

- PO4: Interpret data and communicate a result appropriate to the audience (20 marks)
- PO6: Discover, evaluate and apply reliable sources of knowledge (12 marks)

Scenario

Many businesses use data analytics as it enables them to discover new insights into their business and collect data. This leads to smarter decisions, more efficient operations, higher profits, and happier customers.

Work in a data analytics business is usually done by a small, specialised team of people who are focused on industry.

About you and your employer

Your employer, Rankins Analytics Ltd, specialises in providing decision support solutions for various industries.

You work in the automotive data analytics department at Rankins as a junior data technician. You work with a small team of 3 people, including your data analytics manager, John Hopkins.

John Hopkins reports regularly to Fathema Patel, who is the corporate analytic lead for the leadership group. John is responsible for monitoring the progress and performance of all data departments. John will need you to assist in the following:

- locating and mining data sources
- reviewing and validating sources
- identifying trends, patterns and possible issues in data sources
- occasionally producing reports for Fathema

About the client

Your client is a successful vehicle dealership business. The client sells new and used vehicles regionally and nationally in the UK. They advertise vehicles online on CarBay marketplace and in the Vehicle Daily Trader. The client wants to change to supplying and selling electric vehicles only. The client has limited knowledge of the electric vehicle market and is unsure how to make this change in the business.

The client's objectives for the next 5 years are:

- short-term:
 - to upskill and educate current and new staff on the electrical vehicle industry and its technology to increase electric vehicle sales
 - to implement an efficient marketing strategy to promote the sales of electric vehicles
- long-term:
 - to supply and sell both new and used electric vehicles with net to zero emissions that cater for both the affordable and prestige market
 - to retain current customers' loyalty and support customers in the transition from petrol and diesel to electric vehicles
 - to efficiently stock the types of vehicles that are in demand and reflect prices people can afford

The brief

The client has selected Rankins Analytics Ltd to help them make informed decisions about how they are going to change to supplying and selling electrical vehicles only.

As a junior data technician, your role will be to inform the client about the current electric vehicle industry in the UK. You must source and select the most appropriate datasets. You will research both internal and external data sources on the electric vehicles industry. You will source relevant, up-to-date data on the types of vehicle technology, with a focus on consumer perceptions and attitudes towards electric vehicles.

The client wants to see a proposal before the project starts. The client is also concerned about the amount of data the company has on its vehicle owners and drivers. The client wants to know how well his business strategies and business practices protect that data. The company is particularly interested in protecting the data using connective automotive technology.

The client has told you the following things about his business:

- most of his sales are still petrol and diesel new and used vehicles in the UK
- there is a lack of demand for electrical vehicles as consumers are concerned about charging times, costs and the availability of chargers in the UK
- electric vehicles can be charged at home, work and at public charging stations however there are a range of technical differences such as charging speed, voltages, battery sizes, mileage ranges and connector types
- there is a government plan to ban all sales for new diesel and petrol vehicles by 2030
- customers who purchase electrical vehicles may be eligible for a grant up to £3,000
- electric vehicle owners pay zero vehicle tax (unless vehicle is over £40,000)
- installation of vehicle charger at home is £800, and there is an electric home charger grant scheme of up to £350

The client has provided you with vehicle sales information, the business objectives and the electric vehicle incentives available in the UK. Use this information to help you justify the decisions about the project.

Your role

You need to collect and select relevant data from a variety of different sources both internal and external. These data should meet the client's short and long term business objectives and their target audience for this project. You need to judge how useful the data is. You need to combine datasets that do not contain errors. Datasets may need fixing (cleaning) before they can be used by the client, as they are often not properly structured. You must consider all the client's business objectives, even though not all of these will be relevant to every task. This will make sure the work you produce will help the client to make important strategic decisions.

Your role is to identify any trends or patterns you see in the data you collect. You may need to process statistical data that needs to be cleaned, transformed and modelled so it is useful for business decision-making. Once this has been completed, you will present the results on a summarised dashboard.

Throughout the project you must keep a log of the decisions that you have made. The log will include the types of data formatting and the methods for verification and validation of your data. You also need to consider the security measures you took to minimise the risks of control and data handling; you must consider current legislation. You will provide the client with a detailed proposal that helps him to understand fully your insights and recommendations. The client should be able to explore the possible options and possible outcomes based on your data.

Task 4

Time limit and marks available

Maximum time allowed = 6 hours (you can use this time how you want within each session, but task 4 must be completed within this time limit).

(32 marks)

Instructions for students

You have completed a comprehensive review of data and researched the electrical vehicle industry according to your client's brief; John would like you to draw your own conclusions and show your results in the form of a recorded presentation. You will give the presentation internally to Fathema Patel, who can then explain it to the client. The client is keen to understand any key insights you identify, plus any trends or usage patterns that appear within the data. Your recorded presentation will need an accompanying voice recording so you can explain your findings, insights and recommendations.

You should recommend:

- how the company could change public perception through the data/trends you have presented
- the range of electric vehicles the company should offer to customers - consider the technical limitations of battery, size, range, connectors, charging speeds, voltages
- a plan to change completely to zero emission electrical vehicles in the next 10 years

Resources

As well as the original brief, you will have access to the following resources and equipment:

- your evidence from task 3 (dashboard, log and statistical test) as a reference to support the creation of your recorded presentation, and help you draw your conclusions
- task 4 datasets – these are the same datasets as in task 3 and should give you the business context to help you create the most appropriate presentation software applications to open a dashboard (for example, Microsoft or Google)
- word processing software (for example, Microsoft or Google)
- presentation software, including equipment for digital voice recording

Evidence required for submission to NCFE

- a screen presentation with voice recording to include:
 - analysis showing observed trends and patterns via the use of graphs and charts
 - recorded accompanying narrative with explanations, insights and purpose of visualisations, all aligned to the client brief

Document information

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