CAMBRIDGE
ADVANCED
NATIONALS

OCR
Oxford Cambridge and RSA

Set assignment

DRAFT

LEVEL 3 CAMBRIDGE ADVANCED NATIONAL (AAQ) IN

IT: DATA ANALYTICS

Extended Certificate H119

For first teaching in 2025

F205: Data visualisation

Introduction

This is Sample Assessment Material (SAM). It is an example set assignment that we publish alongside a new specification to help illustrate the intended style and structure of our set assignments.

During the lifetime of the qualification, updates to the set assignment template may happen. We always recommend you look at the most recent set of past set assignments where available.

Tell us what you think

Your feedback plays an important role in how we develop, market, support and resource qualifications now and into the future. Here at OCR, we want teachers and students to enjoy and get the best out of our qualifications and resources, but to do that we need honest opinions to tell us whether we're on the right track or not. That's where you come in.

You can email your thoughts to **ProductDevelopment@OCR.org.uk** or visit the **OCR feedback page** to learn more about how you can help us improve our qualifications.

Designed and tested with teachers and students

Helping young people develop an ethical view of the world

Equality, diversity, inclusion and belonging (EDIB) are part of everything we do

Summary of updates

Date	Version	Page number	Summary of change
July 2023	1 DRAFT	All	Creation of document

Teacher support

We have a range of support services to help you at every stage, from preparation to delivery.

Our teacher support is designed to make teaching our qualifications straightforward, whether you are an experienced teacher, new to teaching, new to OCR, or not a subject specialist of the qualification you are teaching.

We offer free access to services such as Access to Scripts, ExamBuilder and ActiveResults, and you'll find comprehensive teaching resources and a range of professional development courses on our teacher website, Teach Cambridge.

Our OCR subject advisors provide support and information to centres, including:

- Specification and non-exam assessment advice

- Updates on resource developments and training opportunities

- Information on our subject networks giving an opportunity to share ideas and expertise.

Further help and support

Visit our subject pages to find out more about the assessment and request trial access to **Teach Cambridge**.

Not a registered or approved OCR centre? Discover the benefits of becoming one on the **OCR website**.

Have more questions about teaching OCR qualifications? Explore our **Online Support Centre** or contact our **Customer Support team**.

Contact details are available on the **final page** of the SAM.

Work with us

As one of the major UK exam boards, OCR is responsible for creating and marking exams taken by over a million students each year. We work with over 10,000 professionals to create, check, mark and moderate our assessments.

If you would like to find out more about becoming an OCR examiner, please visit **our website** for more information.

People and planet

OCR is part of Cambridge University Press & Assessment, which has clear commitments to champion sustainability, diversity, trust and respect for our people and planet.

We are committed to supporting a curriculum that helps young people develop an ethical view of the world. This enables them to take social responsibility, understand environmental issues and prepare them for the green jobs of the future.

Our equality, diversity, inclusion and belonging principles are that we:

- are respectful and considerate

- celebrate differences and promote positive attitudes to belonging

- include perspectives that reflect the diverse cultural and lifestyle backgrounds of our society

- challenge prejudicial views and unconscious biases

- promote a safe and supportive approach to learning

- are accessible and fair, creating positive experiences for all

- provide opportunities for everyone to perform at their best

- are contemporary, relevant and equip everyone to live and thrive in a global, diverse world

- create a shared sense of identity in a modern mixed society with one humanity.

To learn more, including our work on accessibility in our assessment materials, visit our People and planet page.

OCR-set Assignment

Sample Assessment Material

OCR Level 3 Cambridge Advanced National (AAQ) in IT: Data Analytics (Extended Certificate)

Unit F205: Data visualisation

Scenario Title: Triangle Music Events

This is a sample OCR-set assignment which should only be used for practice**.**

This assignment **must not** be used for live assessment of students.

The live assignments will be available on our secure website, 'Teach Cambridge'.

The OCR administrative codes linked to this unit are:

- unit entry code   F205

- certification code   H119

The regulated qualification number linked to this unit is:

TBC

Duration

About 15 hours of supervised time (GLH)
(work that **must** be completed under teacher supervised conditions)

Contents

Information and instructions for teachers

Using this assignment

This assignment provides a scenario and set of related tasks that reflect how an organisation processes and visualises data sets.

The assignment:

- Is written so that students have the opportunity to meet the requirements of all assessment criteria for the unit.
- Will tell students if their evidence must be in a specific format. If the task does not specify a format, students can choose the format to use.
- **Must** be completed under teacher supervision. Any exceptions to this will be stated in the assessment guidance.

You **must**:

- Use an OCR-set assignment for summative assessment of students.
- Familiarise yourself with the assessment criteria and assessment guidance for the tasks. These are given at the end of each student task. They are also with the unit content in **Section 4** of the Specification.
  Assessment guidance is only given where additional information is needed. There might not be assessment guidance for each criterion.
- Make sure students understand that the assessment criteria and assessment guidance tell them in detail what to do in each task.
- Read and understand **all** the rules and guidance in **Section 6** of the Specification **before** your students start the set assignments.
- Make sure that your students complete the tasks and that you assess the tasks fully in line with the rules and guidance in **Section 6** of the Specification.
- Give your students the OCR Level 3 Cambridge Advanced National (AAQ) in IT: Data Analytics **Student guide to NEA assignments before** they start the assignments.

You **must not**:

- Use live OCR-set assignments for practice or formative assessment. This sample assessment material **can** be used for practice or formative assessment.
- Use this sample assessment material for live assessment of students.
- Allow group work for **any** task in this assignment.
- Change any part of the OCR-set assignments or assessment criteria.

Pages 1-4 are for teachers only. Please do **not** give **Pages 1-4** to your students.

You can give **any** or **all** of the pages **that follow** to your students.

Tasks for students and assessment criteria

Unit F205: Data visualisation

Scenario Title: Triangle Music Events

Scenario

The owner of Triangle Music Events wants a system to visualise data relating to events and bookings.

Client Requirements

The owner wants a visualisation that will identify trends in the following:
- Bookings by event type
- Income by event type
- Bookings by event duration i.e. 1-day, 2-day and 3-day events
- Income by event duration
- Income by year
- Feedback ratings for each event type and duration
- Predicted income for Year 5 sorted in ascending order of income
- Event types for Years 3, 4 and 5
- Event types attended by fewer than 500 people

Information

These are the prices charged to attend an event.

Duration	Year 1	Year 2	Year 3	Year 4	Year 5 (this year)
1-day event	£30	£32	£32	£35	£40
2-day event	£50	£52	£54	£60	£68
3-day event	£75	£80	£82	£90	£100

For Year 5 (this year) the owner thinks that there will be an increase of 15% in the number of bookings on Year 4.

The same events will take place in Year 5 that took place in Year 4.

The owner has provided data in the following files:

Year 1 data.docx – contains data relating to Year 1

Year 2 data.docx – contains data relating to Year 2

Year 3 data.csv – contains data relating to Year 3

Year 4 data.csv – contains data relating to Year 4

Task 1
Plan a data dashboard

Topic Areas 1 and 2 are assessed in this task.

The task is:

Study the data that has been provided by the owner and plan the data dashboard.

Only Year 1 data.docx has data that needs to be cleansed. The other files do **not** need to be cleansed.

Your evidence **must** include:

- Your planning documentation.

Use the assessment criteria below to tell you what you need to do in more detail.

Pass	Merit	Distinction
P1: Describe design and target audience considerations for data visualisation.	**M1: Explain** why data preparation is important for data visualisation.	**D1: Examine** the legal, ethical, moral and social considerations in relation to collection and use of a data set.
P2: Describe the data preparation considerations for data visualisation.		
P3: Identify the layout of a data dashboard and the HCI considerations that are required to present data on the dashboard for the client.		
P4: Explain the functionality considerations and data manipulation methods required to present data on the dashboard for the client.		
P5: Identify the outputs for the data dashboard for the client.		

Assessment Guidance

This assessment guidance gives you information to meet the assessment criteria. There might not be additional assessment guidance for each criterion. It is only given where it is needed. You must read this guidance before you complete your evidence.

Assessment Criteria	Assessment guidance
P1	• The considerations **must** reference the scenario.
M1	• The explanation **must** be linked to the given scenario.
D1	• The evidence **must** be linked to the given scenario.
P2	• There is no assessment guidance for this criterion.
P3	• There is no assessment guidance for this criterion.

P4	• Students can select calculation functions from the list in **Section 2.5** of **Unit F202**.
	• These are:
	   o Relative and absolute cell references
	   o Mathematical operators
	   o Simple functions
	   o Logical functions
	   o Financial functions
	   o Text functions
	   o Date and time functions
	   o Lookup and reference functions
	   o Math and trig functions
	(See **Section 2.5** of Unit **F202** for examples.)

P5	• There is no assessment guidance for this criterion.

Task 2
Create the data dashboard

Topic Area 3 is assessed in this task.

The task is:

Create the data dashboard using your planning from **Task 1** and the data provided.

Your evidence **must** include:

- The digital file you created containing the data and the data dashboard.

Use the assessment criteria below to tell you what you need to do in more detail.

Pass	Merit	Distinction
P6: Import the data provided into an appropriate application for visualisation.		
P7: Prepare the data provided to allow for effective manipulation.		
P8: Create the functionality and data manipulation methods required to present data on the dashboard.	**M2: Summarise** data ready for visualising the data using appropriate data analysis tools.	
P9: Create a data dashboard to visualise data for the client.	**M3: Implement** HCI considerations in the data dashboard using visualisation software tools.	
	M4: Sort data on a data dashboard for the client.	**D2: Filter** data on a data dashboard for the client.

Assessment Guidance

This assessment guidance gives you information to meet the assessment criteria. There might not be additional assessment guidance for each criterion. It is only given where it is needed. You must read this guidance before you complete your evidence.

Assessment Criteria	Assessment guidance
P6	• There is no assessment guidance for this criterion.
P7	• Students only need to cleanse the data. They do **not** need to validate it.
P8	• Students can select calculation functions from the list in **Section 2.5** of **Unit F202**.
M2	• Students **must** use appropriate data analysis tools, such as pivot tables or similar.
P9	• There is no assessment guidance for this criterion.
M3	• There is no assessment guidance for this criterion.
M4	• Sorting can include ascending and descending order, and sorting on more than one column of data.
D2	• There is no assessment guidance for this criterion.

Task 3
Interpreting and communicating the information produced

Topic Area 4 is assessed in this task.

The task is:

Communicate and interpret the information produced for Triangle Music Events.

Your evidence **must** include:

- A report and/or a written presentation and/or a video recording.

Use the assessment criteria below to tell you what you need to do in more detail.

Pass	Merit	Distinction
P10: Present the outputs from the data dashboard to the client.	**M5: Justify** the method used to communicate the outputs from the data dashboard.	**D3: Interpret** the outputs from the data dashboard for the client.

Assessment Guidance

This assessment guidance gives you information to meet the assessment criteria. There might not be additional assessment guidance for each criterion. It is only given where it is needed. You must read this guidance before you complete your evidence.

Assessment Criteria	Assessment guidance
P10	- Students will demonstrate how the data dashboard works. - Acceptable formats for this are: written report, written or verbal presentation. - Evidence of presentation can be a report, a written presentation, or a video recording.
M5	There is no assessment guidance for this criterion.
D3	Students **must** consider trends and patterns from the data outputs. Students **must** make recommendations to the client based on any trends and patterns.

Task 4
Evaluating the effectiveness of the visualisation solution

Topic Area 5 is assessed in this task.

The task is:

Evaluate the preparation of the data and evaluate the data dashboard you created for the owner of Triangle Music Events.

Your evidence **must** include:

- A report.

Use the assessment criteria below to tell you what you need to do in more detail.

Pass	Merit	Distinction
P11: Describe what was and what was **not** effective in the data preparation process.		
P12: Compare the data dashboard produced with the client requirements.	**M6: Evaluate** how far the dashboard produced reflects the plans.	**D4: Evaluate** how effective overall the data dashboard produced is in meeting the client requirements.
	M7: Suggest improvements that could be made to the HCI and layout of the data dashboard produced.	**D5: Suggest** possible further development of the data dashboard produced.

Assessment Guidance

This assessment guidance gives you information to meet the assessment criteria. There might not be additional assessment guidance for each criterion. It is only given where it is needed. You must read this guidance before you complete your evidence.

Assessment Criteria	Assessment guidance
P11	• There is no assessment guidance for this criterion.
P12	• Students **must** describe the similarities and differences between their data dashboard and the client requirements outlined in the scenario.
M6	• There is no assessment guidance for this criterion.
D4	• This is an extension of **P12**. Students will make reasoned judgements on how well client requirements have been met.
M7	• There is no assessment guidance for this criterion.
D5	• There is no assessment guidance for this criterion.

NEA Command Words

The table below shows the command words that may be used in the NEA assignments and/or assessment criteria.

Command Word	Meaning
Adapt	• Change to make suitable for a new use or purpose
Analyse	• Separate or break down information into parts and identify their characteristics or elements • Explain the different elements of a topic or argument and make reasoned comments • Explain the impacts of actions using a logical chain of reasoning
Assess	• Offer a reasoned judgement of the standard or quality of situations or skills. The reasoned judgement is informed by relevant facts
Calculate	• Work out the numerical value. Show your working unless otherwise stated
Classify	• Arrange in categories according to shared qualities or characteristics
Compare	• Give an account of the similarities and differences between two or more items, situations or actions.
Conclude	• Judge or decide something
Describe	• Give an account that includes the relevant characteristics, qualities or events
Discuss (how/whether/etc)	• Present, analyse and evaluate relevant points (for example, for/against an argument) to make a reasoned judgement
Evaluate	• Make a reasoned qualitative judgement considering different factors and using available knowledge/experience
Examine	• To look at, inspect, or scrutinise carefully, or in detail
Explain	• Give reasons for and/or causes of something • Make something clear by describing and/or giving information
Interpret	• Translate information into recognisable form • Convey one's understanding to others, e.g. in a performance
Investigate	• Inquire into (a situation or problem)
Justify	• Give valid reasons for offering an opinion or reaching a conclusion
Research	• Do detailed study in order to discover (new) information or reach a (new) understanding
Summarise	• Express the most important facts or ideas about something in a short and clear form

We might also use other command words but these will be:

• commonly used words whose meaning will be made clear from the context in which they are used

• subject specific words drawn from the unit content.

Examine *with* us

- Build confidence supporting your students with assessment

- Enhance subject knowledge

- Great for professional development

Join our team: ocr.org.uk/assessor

OCR
Oxford Cambridge and RSA

Contact the team at:

📞 **01223 553998**
✉ **computerscience@ocr.org.uk**
◉ **ocr.org.uk**
⊙ **facebook.com/ocrexams**
🐦 **@OCR_ict**
📷 **instagram.com/ocrexaminations**
🔗 **linkedin.com/company/ocr**
▶ **youtube.com/ocrexams**

To stay up to date with all the relevant news about our qualifications, register for email updates at **ocr.org.uk/updates**

Visit our Online Support Centre at **support.ocr.org.uk**