IQM4004

LEVEL 4 · SAMPLE ASSESSMENT

INTO QUALIFICATIONS

Statistics and Data Analysis

Independent Research Project and Data Analysis Report

Candidate assessment pack

Assessment
IQM4004 A2

Sample set
2026-S

Status
SAMPLE ASSESSMENT

Release timing
at coursework release

Duration
Not time-limited; centre submission deadline applies

Response length
1,500 words ±10%

Total marks
100

Weighting
40% of module

AI condition
Level 2 – Planning: planning only; assessed analysis and report content must be independently produced.

About this sample assessment

SAMPLE ASSESSMENT / 2026-S — Complete an individual small-scale quantitative investigation using a dataset you select and your tutor approves. The fictional Parkside Fitness data below illustrate one practice case; they are not the prescribed assessment dataset.

Instructions for candidates

Permitted materials: Open-resource coursework. Permitted: a student-selected, tutor-approved dataset, acknowledged sources and approved analytical software (Microsoft Excel, Power BI, Tableau or another tool permitted by the assessment instructions). Transparent calculations, tables and visualisations must be retained. Permitted calculator: Not applicable to this assessment. Select the dataset and obtain tutor approval before analysis; retain your source data and working files.

Develop a focused research question, aim and objectives.

Describe your tutor-approved dataset, including its source, variables, data types, units and sample size; justify its suitability, your statistical methods and software workflow, and identify data-quality or methodological limitations.

Present descriptive statistics and at least one labelled chart. Apply an appropriate statistical method to answer your research question, show your workings and interpret the output in context.

Where a grouping or comparison is appropriate, define it clearly, show denominators and interpret patterns and uncertainty cautiously. Do not infer causation from association.

Discuss business implications, ethics, data limitations and a proportionate recommendation; include workings and references/appendix.

Illustrative practice material

Parkside Fitness practice data

This table is a fictional practice example only. It is not a prescribed or approved dataset for the assessed project. Select another suitable dataset and obtain tutor approval.

Variables: CallMins = onboarding call duration in minutes; Day30Visits = gym visits in first 30 days; Renewed = 1 if sample member renewed at day 90 and 0 if not.

CallMins (minutes)	Day30Visits	Renewed (1=yes; 0=no)
5	2	0
8	4	0

CallMins (minutes)	Day30Visits	Renewed (1=yes; 0=no)
10	5	0
12	6	0
15	7	1
18	8	1
20	9	1
22	10	1
25	11	1
28	12	1
30	13	1
35	14	1

Tasks

Develop a focused research question, aim and objectives.

Describe your tutor-approved dataset, including its source, variables, data types, units and sample size; justify its suitability, your statistical methods and software workflow, and identify data-quality or methodological limitations.

Present descriptive statistics and at least one labelled chart. Apply an appropriate statistical method to answer your research question, show your workings and interpret the output in context.

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Discuss business implications, ethics, data limitations and a proportionate recommendation; include workings and references/appendix.

Response structure and assessment areas

Introduction and business research question — 10 marks (Task 1)

Dataset and research method — 15 marks (Task 2)

Data presentation and descriptive statistics — 30 marks (Task 3)

Statistical analysis and interpretation — 20 marks (Tasks 3 and 4)

Discussion and business implications — 15 marks (Tasks 4 and 5)

Ethical considerations — 5 marks (Task 5)

Conclusion — 5 marks (Task 5)

References and appendix

Required sources and data

Use your student-selected, tutor-approved dataset and acknowledge its source. Cite independently read academic or method sources as relevant. Retain transparent workings, tables, charts and the analysis file. Discuss data quality, privacy, ethics and limitations relevant to your data.

Requirement 1

Develop a focused research question, aim and objectives.

T1

Develop a focused research question, aim and objectives.

Response guidance: Address this requirement in the relevant report/presentation section.

Requirement 2

Describe your tutor-approved dataset, including its source, variables, data types, units and sample size; justify its suitability, your statistical methods and software workflow, and identify data-quality or methodological limitations.

T2

Describe your tutor-approved dataset, including its source, variables, data types, units and sample size; justify its suitability, your statistical methods and software workflow, and identify data-quality or methodological limitations.

Response guidance: Address this requirement in the relevant report/presentation section.

Requirement 3

Present descriptive statistics and at least one labelled chart. Apply an appropriate statistical method to answer your research question, show your workings and interpret the output in context.

T3

Present descriptive statistics and at least one labelled chart. Apply an appropriate statistical method to answer your research question, show your workings and interpret the output in context.

Response guidance: Address this requirement in the relevant report/presentation section.

Requirement 4

Where a grouping or comparison is appropriate, define it clearly, show denominators and interpret patterns and uncertainty cautiously. Do not infer causation from association.

T4

Where a grouping or comparison is appropriate, define it clearly, show denominators and interpret patterns and uncertainty cautiously. Do not infer causation from association.

Response guidance: Address this requirement in the relevant report/presentation section.

Requirement 5

Discuss business implications, ethics, data limitations and a proportionate recommendation; include workings and references/appendix.

T5

Discuss business implications, ethics, data limitations and a proportionate recommendation; include workings and references/appendix.

Response guidance: Address this requirement in the relevant report/presentation section.

Prepare and submit your work

Submit the seven report sections listed above, with references, appendices, transparent workings and the supporting analysis file.

Attend at least one supervised progress checkpoint and retain planning, source-selection and analysis files for authenticity verification. AI may support brainstorming and initial outlining only; it must not choose the dataset or method, clean or analyse data, perform calculations, interpret outputs, or write assessed report content. Acknowledge AI use as required by the centre.