

End-point assessment plan for Data Analyst apprenticeship standard*

*this end-point assessment plan aligns with standard version 1.1

Apprenticeship standard reference number	Apprenticeship standard level	Integrated end-point assessment
ST0118	4	No

Contents

Introduction and overview	2
EPA summary table	3
Length of end-point assessment period	4
Order of assessment methods	4
Gateway	4
Assessment methods.....	6
Reasonable adjustments	11
Grading.....	12
Re-sits and re-takes.....	16
Roles and responsibilities	17
Internal Quality Assurance (IQA).....	20
Affordability.....	20
Professional body recognition	20
Mapping of knowledge, skills and behaviours (KSBs)	21

Introduction and overview

This document sets out the requirements for end-point assessment (EPA) for the Data Analyst apprenticeship standard. It is for end-point assessment organisations (EPAOs) who need to know how EPA for this apprenticeship must operate. It will also be of interest to Data Analyst apprentices, their employers and training providers.

Full time apprentices will typically spend 24 months on-programme (before the gateway) working towards the occupational standard, with a minimum of 20% off-the-job training. All apprentices must spend a minimum of 12 months on-programme.

The EPA period should only start, and the EPA be arranged, once the employer is satisfied that the apprentice is deemed to be consistently working at or above the level set out in the occupational standard, all of the pre-requisite gateway requirements for EPA have been met and can be evidenced to an EPAO.

For level 3 apprenticeships and above apprentices without English and mathematics at level 2 must achieve level 2 prior to taking their EPA.

The EPA must be completed within an EPA period lasting typically 3 month(s), after the EPA gateway.

The EPA consists of 2 discrete assessment methods.

The individual assessment methods will have the following grades:

Assessment method 1: Project with presentation and questioning

- Fail
- Pass
- Distinction

Assessment method 2: Professional discussion with portfolio

- Fail
- Pass
- Distinction

Performance in the EPA will determine the overall apprenticeship grade of:

- Fail
- Pass
- Merit
- Distinction

EPA summary table

On-programme (typically, 24 months)	Training to develop the occupation standard's knowledge, skills and behaviours (KSBs). Training towards English and mathematics at Level 2. Compiling a portfolio of evidence.
End-point assessment gateway	<ul style="list-style-type: none"> • Employer is satisfied the apprentice is consistently working at, or above, the level of the occupational standard. • English and mathematics Level 2 Apprentices must submit: <ul style="list-style-type: none"> • A portfolio to underpin the Professional Discussion
End-point assessment (which will typically take 3 months)	Assessment method 1: Project with presentation and questioning With the following grades: <ul style="list-style-type: none"> • Fail • Pass • Distinction Assessment method 2: Professional discussion with portfolio With the following grades: <ul style="list-style-type: none"> • Fail • Pass • Distinction Performance in the EPA will determine the overall apprenticeship standard grade of: <ul style="list-style-type: none"> • Fail • Pass • Merit • Distinction
Professional Recognition	Not applicable for this occupation

Length of end-point assessment period

The EPA will be completed within an EPA period lasting typically 3 month(s), after the EPA gateway.

Any supporting material required for the EPA must be submitted at the Gateway. If an EPA assessment method is failed, it should be re-sat or retaken within the typical EPA period and in-line with the requirements set out in this assessment plan.

Order of assessment methods

The assessment methods can be delivered in any order.

Gateway

The EPA period should only start once the employer is satisfied that the apprentice is consistently working at or above the level set out in the occupational standard, that is to say they are deemed to have achieved occupational competence. In making this decision, the employer may take advice from the apprentice's training provider(s), but the decision must ultimately be made solely by the employer.

In addition to the employer's confirmation that the apprentice is working at or above the level in the occupational standard, the apprentice must have completed the following gateway requirements prior to beginning EPA:

- Achieved English and mathematics at Level 2.

For those with an education, health and care plan or a legacy statement, the apprenticeship's English and Mathematics minimum requirement is Entry Level 3. British Sign Language (BSL) qualifications are an alternative to English qualifications for those who have BSL as their primary language.

For the Project with presentation and questioning, the EPAO should provide a source of suggested project titles, such as:

- Patterns / trends and predictions
- Presenting statistical analysis results to inform decisions
- Optimising data models using statistical measures

The EPAO should make suggested project titles with relevant detailed specifications available to the apprentice and employer at the gateway. The apprentice and employer should select the most appropriate project title by reference to the work available to the apprentice during the EPA period.

For the Professional discussion with portfolio, the apprentice will be required to submit:

- A portfolio of examples to be used to underpin the professional discussion.
- The format and structure of the portfolio should be agreed between the employer, the apprentice and the EPAO (e.g. hard copy or on-line).
- The content should be sufficient to evidence the apprentice can apply the knowledge, skills and behaviours required as mapped to the professional discussion.
- There should be at least one piece of evidence relating to each of the knowledge, skills and behaviours mapped to the professional discussion.
- Evidence should be mapped against the KSBs.
- Evidence may be used to demonstrate more than one KSB; a qualitative as opposed to quantitative approach is suggested.
- It is expected that there will typically be 10 pieces of evidence in total.
- The portfolio should contain evidence of work projects completed such as: written accounts of activities that have been completed, photographic evidence and work products, work instructions, safety documentation, technical reports, drawings, company policies and procedures as appropriate to the activities.
- Progress review documentation, witness testimonies, and feedback from colleagues and/ or clients should also be included.
- Reflective accounts and self-assessments must not be included as evidence.
- The evidence provided must be valid and attributable to the apprentice; the portfolio of evidence must contain a statement from the employer and apprentice confirming this.
- The apprentice's Manager/ Mentor will typically support the development of the portfolio in accordance with company policy and procedures, although the EPAO will provide further guidance on the content.

The portfolio of examples is not directly assessed. It underpins the professional discussion and therefore should not be marked by the EPAO. Independent Assessors should review the portfolio of examples in preparation for the Professional Discussion but are not required to provide feedback after their review of the portfolio.

Assessment methods

Assessment method 1: Project with presentation and questioning

(This assessment method has two components.)

Assessment method 1 component 1: Data Analysis Project

Overview

The project is compiled after the apprentice has gone through the gateway.

The work-based project should be designed to ensure that the apprentice's work meets the needs of the business, is relevant to their role and allows the relevant KSBs to be demonstrated for the EPA.

The project will be designed to give the Data Analyst the opportunity to demonstrate the KSBs mapped to the assessment method within their day to day work and may cover the following project ideas to enable them to demonstrate competence (these are examples and other relevant project ideas are permitted):

- Patterns / trends and predictions
- Presenting statistical analysis results to inform decisions
- Optimising data models using statistical measures

The employer will ensure it has a real business application and the EPAO will ensure it meets the requirements of the EPA (including suitable coverage of the KSBs assignment to this assessment method).

Given the large number of projects that will be completed per year, EPAOs will not be expected to sign-off each project title before the project commences. However, the EPAO should instead provide detailed specifications and suggested project titles to enable the employer to select a suitable project that will meet the requirements of the EPA.

The rationale for this assessment method is:

Data analysts work in a project-based environment and are responsible for collating, analysing and presenting data to a range of stakeholders. The project will address a data analysis task tailored to the organisational requirements of the apprentice's employer which reflects the normal working practices within the role. As part of the role they will be expected to complete project reports and the project will reflect the areas their report would cover within their industry. By using this assessment method, the apprentice will be able to demonstrate not only their analytical skills but also their use of varied methods of presenting data analysis outputs and their ability to distil key data analysis findings into a presentation. The questioning element allows the apprentice an opportunity to provide further detailed evidence to support their demonstration of the mapped KSBs to this method.

Delivery

Apprentices will conduct a project and submit an electronic report.

The project is compiled after the apprentice has gone through the gateway. The apprentice will conduct their project and submit it to the EPAO after a maximum of 8 weeks of the EPA start date. The project itself will typically take 6 weeks and the report write up a further 2 weeks.

The employer will ensure the apprentice has sufficient time and the necessary resources, within this period, to plan and undertake the project.

Whilst completing the project, the apprentice should be subject to the supervision arrangements outlined below:

- Normal workplace supervision

The project should be submitted in the form of an electronic report and should comprise an explanatory narrative which sets out the tasks undertaken as well as accompanying visual infographics.

As a minimum all project outputs must include:

- an introduction
- the scope of the project (including key performance indicators)
- project outcomes and how the outcomes were achieved
- a project plan
- consideration of legislation, regulation, industry and organisational policies, procedures and requirements
- analysis
- research and findings
- recommendations and conclusions

The project report should acknowledge sources.

The project report has a maximum word limit of 3,500. A tolerance of plus or minus 10% is allowed.

Appendices, references, diagrams etc. will not be included in this total.

The project must map, in an appendix, how it evidences the relevant KSBs for this assessment method.

The apprentice will need to consider the availability of company and external resources required to complete the project. They must also ensure they are fully aware of the KSBs the project is intended to assess as that is what the grading of the project will be based on.

The apprentice may work as part of a team which could include technical internal or external support however the report will be the apprentice's own work and will be reflective of their own role and contribution.

When the project is submitted, the employer and the apprentice should verify the submitted work is that of the apprentice.

Marking

The independent assessor will review and mark the project in a timely manner, as determined by the EPAO, and without extending the EPA unnecessarily. Similarly, all quality control processes will also be conducted in a timely manner, as determined by the EPAO.

Supporting material

EPAOs will produce the following material to support this assessment method:

- Outline of the assessment method's requirements
- Marking materials
- Examples of projects

Assessment method 1 component 2: Presentation with Questioning

Overview

Apprentices will prepare and deliver a presentation that appropriately covers the KSBs assigned to this method of assessment.

The presentation will be based on the project and will cover:

- a summary of the main aspects of the project
- context/ implications/recommendations from the project
- practical application of knowledge, skills and behaviours
- business recommendations/ outcomes of the project, including visualisations
- any follow-on outcomes
- actions and next steps

The presentation will be completed and submitted after the gateway within 8 weeks of the EPA start date typically at the same time as the project report is submitted to the EPAO. The presentation will be presented to an independent assessor, either face-to-face or via online video conferencing. The apprentice will have 10 days' notice of the presentation date to prepare for the presentation.

The rationale for this assessment method is:

The presentation is part of the overall "project with presentation and questioning" assessment method. The rationale for the use of the presentation element is that it replicates the work undertaken by competent individuals in the profession, where clearly communicating complex issues to non-technical and technical audiences is required.

Delivery

The presentation with questioning will last for 40 minutes. The presentation will typically last for 20 minutes and the questions and answers will typically last for 20 minutes. The questions will be held following the presentation. The independent assessor has the discretion to increase the time of both the presentation and questioning by up to 10% to allow the apprentice to complete their last point. During this method, the independent assessor must use questions from a question bank as well as generate their own questions. A minimum of 8 questions must be asked.

The presentation with questioning will be conducted as set out here:

- The presentation will take place on a one-to-one basis between the assessor and the apprentice.
- The way in which the content of the presentation is delivered is not prescriptive.

- A copy of the project presentation material must be sent to the EPAO within 8 weeks of the EPA start date, and the apprentice must outline details of visual aids to be used and specify any equipment required for the presentation.
- The independent assessor will review the project in advance of the presentation and prepare questions to be used at the end of the presentation.
- The presentation will be assessed holistically as part of the overall project with presentation and questioning assessment method.
- The independent assessor will make the grading decision based on all of the components in the assessment method.

The independent assessor must use the assessment tools and procedures that are set by the EPAO to record the presentation with questioning

The independent assessor will make all grading decisions.

Venue

The presentation with questioning should take place in a quiet room, free from distractions and influence.

The presentation with questioning can take place in any of the following:

- employer's premises
- a suitable venue selected by the EPAO (for example a training provider's premises)
- online via video conferencing

The presentation may be conducted face-to-face or via an electronic platform e.g. videoconferencing. EPAOs must ensure appropriate methods to prevent misrepresentation are in place should an electronic option be used, for example, screen share and 360-degree camera function with the independent assessor present.

The venue shall have access to appropriate resources to conduct the assessment such as robust IT equipment and infrastructure to enable effective use of any technology used.

Other relevant information

Questions relating to the underpinning KSBs, must be varied yet allow assessment of the relevant KSBs.

Independent assessors must be developed and trained by the EPAO in the conduct of presentations with questioning and reaching consistent judgement.

EPAOs will produce the following material to support this assessment method:

- outline of the assessment method's requirements
- marking / grading materials
- overview of the typical titles of projects
- question bank

Assessment method 2: Professional discussion with portfolio (This assessment method has 1 component.)

Assessment method 2 component 1: Professional discussion with portfolio

Overview

This assessment will take the form of a professional discussion which must be appropriately structured to draw out the best of the apprentice's competence. It will involve the questions that will focus on the KSBs mapped to this method of assessment.

The rationale for this assessment method is:

This assessment method was selected as a valid way to draw out KSBs, in particular, the behaviours, which would be less likely to naturally occur in the project with presentation and questioning. It is commonplace for people in this occupation to engage in detailed technical discussions, so this assessment method mirrors their day to day work. This will allow some KSBs which may not naturally occur in every workplace or may take too long to observe to be assessed and the assessment of a disparate set of KSBs.

Delivery

The independent assessor will conduct and assess the professional discussion.

The professional discussion must last for 60 minutes. The independent assessor has the discretion to increase the time of the professional discussion by up to 10% to allow the apprentice to complete their last answer. Further time may be granted for apprentices with appropriate needs in line with the EPAOs Reasonable Adjustment Policy.

The independent assessor will ask a minimum of 10 open questions. Questions may be taken from an EPAO question bank or be those generated by the independent assessor. Follow up questions are permitted where clarification is required.

The professional discussion will be conducted as set out here:

The portfolio is submitted to the EPAO at the Gateway, a copy can be retained by the apprentice and brought by them to the professional discussion. The independent assessor should have 10 days to review the portfolio prior to the professional discussion taking place.

This is a 1:1 conversation in an appropriate environment (a quiet room free from distraction).

The portfolio will be used by the apprentice to refer to exemplify a point. Questioning will be used to authenticate evidence and competence.

Video conferencing can be used to conduct the professional discussion, but the EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided in some way.

The independent assessor must use the assessment tools and procedures that are set by the EPAO to record the professional discussion.

The independent assessor will make all grading decisions.

Venue

The professional discussion should take place in a quiet room, free from distractions and influence.

The professional discussion can take place in any of the following:

- employer's premises
- a suitable venue selected by the EPAO (for example a training provider's premises)
- online via video conferencing

Other relevant information

Independent assessors must be developed and trained by the EPAO in the conduct of professional discussion and reaching consistent judgement.

EPAOs will produce the following material to support this assessment method:

- outline of the assessment method's requirements
- marking materials
- question bank

Reasonable adjustments

The EPAO must have in place clear and fair arrangements for making reasonable adjustments for this apprenticeship standard. This should include how an apprentice qualifies for reasonable adjustment and what reasonable adjustments will be made. The adjustments must maintain the validity, reliability and integrity of the assessment methods outlined in this assessment plan.

Weighting of assessment methods

All assessment methods are weighted equally in their contribution to the overall EPA grade.

Grading

Assessment method 1: Project with presentation and questioning

KSBs	Fail Does not meet the pass criteria	Pass To achieve a pass all pass criteria must be met	Distinction To achieve a distinction all pass and all distinction criteria must be met
<p>K3 K4 K8 K9 K11 K12</p> <p>S1 S2 S3 S4 S6 S7 S8 S12 S15</p> <p>B3 B4</p>		<p>Operates data systems in compliance with all organisational and legislative requirements including principles of Privacy by Design S1</p> <p>Outlines and applies the principles of data analysis lifecycle to the steps of data analysis K3 S2</p> <p>Describe the principles of data including open, public, administrative and research data and how they relate to the data used within the project K4</p> <p>Demonstrates a reasoned application of the principles of data classification. Explains where any flexibilities in application have been applied and their purpose S3</p> <p>Identifies quality risks in data analysis and outlines methods to mitigate, escalate and/or resolve them K8 S6</p> <p>Outlines and applies the principles for defining customer requirements and implements findings in data analytics planning and outputs K9 S7</p> <p>Demonstrates how data from different sources is combined and prepared for data analysis setting out how they identified the risks and challenges inherent in combining data within the project. S8</p>	<p>Evaluates the outcomes of data analysis and suggests alternative tools/methods which would be of benefit to all stakeholders. K8 K11 B4</p> <p>Analyses the requirements of the customer to produce a data analysis plan which provides an optimum solution S7</p> <p>Demonstrates the use of data sets with different data structures and database designs to solve problems or improve the accuracy or efficiency of data analysis. S4</p>

		<p>Describes the tools and methods used by their organisation for data analysis and identifies which were used within the project with reasoning for the choices made to achieve the best outcome K11 S15</p> <p>Analyses data sets taking account of different data structures and database designs S4</p> <p>Outlines the choice of organisational data architecture K12</p> <p>Communicates and collaborates with all relevant stakeholders and adapts communication style to meet audience and situational requirements S12</p> <p>Describes how they work independently and collaboratively detailing their impact on the work of others B3</p> <p>Acts independently to establish logical and analytical solutions such as exploring new data sets or resolving issues within the data B4</p>	
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Assessment method 2: Professional discussion with Portfolio

KSBs	Fail Does not meet the pass criteria	Pass To achieve a pass all pass criteria must be met	Distinction To achieve a distinction all pass and all distinction criteria must be met
K1 K2 K5 K6 K7 K10 K13 K14 K15 S5 S9 S10 S11 S13 S14 B1 B2 B5 B6 B7		<p>Explains how current, relevant legislation impacts on the safe use of data and how their role contributes to a productive, safe, and secure working environment K1 B1</p> <p>Explains the relevant data policies and procedures for the organisation, and identifies the</p>	<p>Critically evaluates the risks and benefits of predictive analytics K14, S11</p> <p>Compares and contrasts visual data representation approaches and how they aid understanding by stakeholders S14</p>

		<p>data standards to be reached K2</p> <p>Describes the fundamentals of data structures and database system design and explains how they are implemented and maintained. K6</p> <p>Explains approaches to combining data from different sources to improve accuracy and / or efficiency and / or maximise benefits to the organisation and / or customer. K10</p> <p>Describes impact on user experience and domain context on data analysis S5</p> <p>Explains the differences between Structured and Unstructured data K5</p> <p>Explains the ethical aspects associated with the collation and use of data and justifies why this is important. K15</p> <p>Describes the relevant tools or techniques used for working with the data systems architecture in their organisation. S9</p> <p>Explains and applies the principles of statistics for analysing datasets, K13 S10</p> <p>Identifies and explains challenges in their work and how they overcame them, providing an outline of lessons learned B6</p> <p>Explains how they have applied analytical techniques for data mining and time series forecasting and other modelling techniques S13</p> <p>Identifies areas of work where they adapted to changing</p>	<p>Evaluates the benefits and risks inherent in combining data from different sources. K10</p>
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		<p>contexts within the scope of a project, direction of the organisation or Data Analyst role B7.</p> <p>Explains the principles of descriptive, predictive and prescriptive analytics and demonstrates how they have been applied within their own data analysis practice. K14 S11</p> <p>Demonstrates data analysis activities involving the collation and interpretation of qualitative and quantitative data and displays results using visual representations. S14</p> <p>Explains the principles of user experience and domain context for data analytics. K7</p> <p>Describes how they have appropriately adapted their activities to meet minor, unexpected changes at work. B2</p> <p>Describes how they have ensured the true root cause of any problem is found and a solution is identified which prevents recurrence. B5</p>	
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Overall EPA grading

All EPA methods must be passed for the EPA to be passed overall.

Apprentices must gain a pass in one method plus a pass in the other method to gain a pass overall

Apprentices must gain a pass in one method plus a distinction in the other method to gain a merit overall

Apprentices must gain a distinction in both assessment methods to gain a distinction overall

Grades from individual assessment methods should be combined in the following way to determine the grade of the EPA as a whole:

Assessment Method 1 Project with presentation and questioning	Assessment Method 2 Professional discussion with portfolio	Overall grading
Fail	Any grade	Fail
Any grade	Fail	Fail
Pass	Pass	Pass
Pass	Distinction	Merit
Distinction	Pass	Merit
Distinction	Distinction	Distinction

Re-sits and re-takes

Apprentices who fail one or more assessment method will be offered the opportunity to take a re-sit or a re-take at the employer's discretion. The apprentice's employer will need to agree that either a re-sit or re-take is an appropriate course of action.

A re-sit does not require further learning, whereas a re-take does.

Apprentices should have a supportive action plan to prepare for a re-sit or a re-take.

An apprentice who fails one or more assessment methods, and therefore the EPA in the first instance, will be required to re-sit or re-take the failed assessment method(s) only.

The timescales for a re-sit/re-take is agreed between the employer and EPAO. A re-sit is typically taken within two months of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within four months of the EPA outcome notification.

All assessment methods must be taken within a six-month period, otherwise the entire EPA will need to be re-sat/re-taken.

Re-sits and re-takes are not offered to apprentices wishing to move from pass to a higher grade.

The overall grade awarded for this apprenticeship standard is not capped, meaning that an apprentice can still achieve a maximum EPA grade of distinction if any assessment method needs to be re-sat or re-taken.

Roles and responsibilities

Apprentice	<p>As a minimum, apprentices should:</p> <ul style="list-style-type: none"> • participate in and complete on-programme training to meet the KSBs as outlined in the occupational standard for a minimum of 12 months • undertake 20% off-the-job training as arranged by the employer and training provider • understand the purpose and importance of EPA • undertake the EPA including meeting all gateway requirements
Employer	<p>As a minimum Employers should:</p> <ul style="list-style-type: none"> • work with the training provider (where applicable) to support the apprentice in the workplace to provide the opportunities for the apprentice to develop the KSBs • arrange and support a minimum of 20% off-the-job training to be undertaken by the apprentice • decide when the apprentice is working at or above the occupational standard and so is ready for EPA • select the EPAO • ensure that all supporting evidence required at the gateway is submitted in accordance with this EPA plan • remain independent from the delivery of the EPA • confirm arrangements with the EPAO for the EPA (who, when, where) in a timely manner (including providing access to any employer specific documentations as required, for example company policies) • ensure that the EPA is scheduled with the EPAO for a date and time which allow appropriate opportunity for the KSBs to be met • ensure the apprentice is well prepared for the EPA • ensure the apprentice is given sufficient time away from regular duties to prepare for and complete all post gateway elements of the EPA, and that any required supervision during this time (as stated within this EPA plan) is in place • where the apprentice is assessed in the workplace, ensure that the apprentice has access to the resources used on a daily basis
EPAO	<p>As a minimum EPAOs should:</p> <ul style="list-style-type: none"> • make all necessary contractual arrangements, including agreeing the price of the EPA • understand the occupational standard • appoint administrators (and invigilators where required) to administer the EPA as appropriate • provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading

	<ul style="list-style-type: none"> • provide adequate information, advice and guidance documentation to enable apprentices, employers and training providers to prepare for the EPA • arrange for the EPA to take place, in consultation with the employer • conform to the requirements of this EPA plan and deliver its requirements in a timely manner • develop and provide appropriate assessment recording documentation to ensure a clear and auditable process is in place for providing assessment decisions and feedback to all relevant stakeholders • have no direct connection with the apprentice, their employer or training provider. In all instances including when the EPAO is the training provider (i.e. HEI) there must be no conflict of interest • have policies and procedures for internal quality assurance (IQA), and maintain records of regular and robust IQA activity and moderation for external quality assurance (EQA) purposes • conform to the requirements of the nominated external quality assurance provider (EQAP) • conform to the requirements of the Register of End-Point Assessment Organisations (RoEPAO) • deliver induction training for independent assessors, and for invigilators and markers where used • undertake standardisation activity on this apprenticeship standard for all independent assessors before they conduct an EPA for the first time, if the EPA is updated and periodically as appropriate (a minimum of annually) • manage invigilation of apprentices in order to maintain security of the assessment in line with their malpractice policy • verify the identity of the apprentice being assessed • use language in the development and delivery of the EPA that is appropriate to the level of the occupational standard • request certification via the Apprenticeship Service upon successful achievement of the EPA • develop and produce assessment materials including specifications and marking materials (for example mark schemes, practice materials, training material) • appoint suitably qualified and competent independent assessors • provide details of the independent assessor's name and contact details to the employer • have and apply appropriately an EPA appeals process
Independent Assessor	<p>As a minimum Independent Assessors should:</p> <ul style="list-style-type: none"> • have the competence to assess the apprentice at this level and hold any required qualifications and experience in line with the requirements of the independent assessor as detailed in the IQA section of this EPA plan • understand the occupational standard and the requirements of this EPA • have, maintain and be able to evidence up to date knowledge and expertise of the subject matter • deliver the end-point assessment in-line with the EPA plan • comply with the IQA requirements of the EPAO

	<ul style="list-style-type: none"> • have no direct connection or conflict of interest with the apprentice, their employer or training provider; in all instances including when the EPAO is the training provider (i.e. HEI) • attend induction training • attend standardisation events when they begin working for the EPAO, before they conduct an EPA for the first time and a minimum of annually on this apprenticeship standard • assess each assessment method, as determined by the EPA plan, and without extending the EPA unnecessarily • assess against the KSBs assigned to each assessment method, as shown in the mapping of assessment methods and as determined by the EPAO, and without extending the EPA unnecessarily • make all grading decisions • record and report all assessment outcome decisions, for each apprentice, following instructions and using recording documentation provided by the EPAO, in a timely manner • use language in the development and delivery of the EPA that is appropriate to the level of the occupational standard
Training Provider	<p>As a minimum Training Providers should:</p> <ul style="list-style-type: none"> • work with the employer and support the apprentice during the off-the-job training to provide the opportunities to develop the knowledge, skills and behaviours as listed in the occupational standard • conduct training covering any knowledge, skill or behaviour requirement agreed as part of the Commitment Statement (often known as the Individual Learning Plan). • monitor the apprentice's progress during any training provider led on-programme learning • advise the employer, upon request, on the apprentice's readiness for EPA • remain independent from delivery of the EPA. Where the training provider is the EPA (i.e. a HEI) there must be procedures in place to mitigate against any conflict of interest

Internal Quality Assurance (IQA)

Internal quality assurance refers to the requirements that EPA organisations must have in place to ensure consistent (reliable) and accurate (valid) assessment decisions. EPA organisations for this EPA must:

- appoint independent assessors who will need to have at least 3 years of experience and have the technical skills to undertake Data Analysis.
- appoint independent assessors who have recent relevant experience of the occupation/sector at least one level above the apprentice gained in the last three years or significant experience of the occupation/sector.
- appoint independent assessors who are competent to deliver the end-point assessment
- provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading
- have robust quality assurance systems and procedures that support fair, reliable and consistent assessment across the organisation and over time
- operate induction training and standardisation events for independent assessors when they begin working for the EPAO on this standard and before they deliver an updated assessment method for the first time
- ensure independent assessors attend standardisation events on an ongoing basis and at least once per year for this standard

Affordability

Affordability of the EPA will be aided by using at least some of the following practice:

- using an employer's premises
- use of video conferencing

Professional body recognition

Professional body recognition is not relevant to this occupational apprenticeship.

Mapping of knowledge, skills and behaviours (KSBs)

Assessment method 1: Project with presentation and questioning

Knowledge
K3 principles of the data analysis life cycle and the steps involved in carrying out routine data analysis tasks.
K4 principles of data, including open and public data, administrative data, and research data
K8 quality risks inherent in data and how to mitigate/resolve these
K9 principal approaches to defining customer requirements for data analysis
K11 approaches to organisational tools and methods for data analysis
K12 organisational data architecture

Skills
S1 use data systems securely to meet requirements and in line with organisational procedures and legislation, including principles of Privacy by Design
S2 implement the stages of the data analysis lifecycle
S3 apply principles of data classification within data analysis activity, flexing approach as necessary
S4 analyse data sets taking account of different data structures and database designs
S6 identify and escalate quality risks in data analysis with suggested mitigation/resolutions as appropriate.
S7 undertake customer requirements analysis and implement findings in data analytics planning and outputs
S8 identify data sources and the risks, challenges to combination within data analysis activity
S12 collaborate and communicate with a range of internal and external stakeholders using appropriate styles and behaviours to suit the audience
S15 select and apply the most appropriate data tools to achieve the best outcome

Behaviours
B3 Works independently and collaboratively
B4 Logical and analytical

Assessment method 2: Professional discussion with Portfolio

Knowledge
K1 current relevant legislation and its application to the safe use of data
K2 organisational data and information security standards, policies and procedures relevant to data management activities
K5 the differences between structured and unstructured data
K6 the fundamentals of data structures, database system design, implementation and maintenance
K7 principles of user experience and domain context for data analytics
K10 approaches to combining data from different sources
K13 principles of statistics for analysing datasets
K14 the principles of descriptive, predictive and prescriptive analytics
K15 the ethical aspects associated with the use of and collation of data

Skills
S5 assess the impact on user experience and domain context on the data analysis activity
S9 apply organizational architecture requirements to data analysis activities
S10 apply statistical methodologies to data analysis tasks
S11 apply predictive analytics in the collation and use of data
S13 use a range of analytical techniques such as data mining, time series forecasting and modelling techniques to identify and predict trends and patterns in data
S14 to collate and interpret qualitative and quantitative data and convert into infographics, reports, tables, dashboards, and graphs

Behaviours
B1 maintain a productive, professional, and secure working environment
B2 shows initiative, being resourceful when faced with a problem and taking responsibility for solving problems within their own remit
B5 identifies issues quickly, enjoys investigating and solving complex problems and applies appropriate solutions. Has a strong desire to push to ensure the true root cause of any problem is found and a solution is identified which prevents recurrence

B6 demonstrates resilience by viewing obstacles as challenges and learning from failure.
B7 demonstrates an ability to adapt to changing contexts within the scope of a project, direction of the organisation or Data Analyst role.