Qube learning
UNLOCKING POTENTIAL

DATA ANALYST
Level 4

Data analysts are typically involved with managing, cleansing, abstracting and aggregating data, and conducting a range of analytical studies on that data. They work across a variety of projects, providing technical data solutions to a range of stakeholders/customers issues.

Data Analysts also document and report the results of data analysis activities making recommendations to improve business performance. They have a good understanding of data structures, database systems and procedures and the range of analytical tools used to undertake a range of different types of analyses.

DATA ANALYSTS MUST KNOW AND UNDERSTAND

- The range of data protection and legal issues
- The data life cycle
- The different types of data, including open and public data, administrative data, and research data
- The differences between structured and unstructured data
- The fundamentals of data structures, database system design, implementation and maintenance
- The importance of the domain context for data analytics
- The quality issues that can arise with data and how to avoid and/or resolve these
- The importance of clearly defining customer requirements for data analysis
- The processes and tools used for data integration
- The steps involved in carrying out routine data analysis tasks
- How to use and apply industry standard tools and methods for data analysis

DATA ANALYSTS DEMONSTRATE THE FOLLOWING BEHAVIOURS:

- Logical and creative thinking skills
- Analytical and problem solving skills
- Ability to work independently and to take responsibility
- Can use own initiative
- A thorough and organised approach
- Ability to work with a range of internal and external people
- Ability to communicate effectively in a variety of situations
- Maintain productive, professional and secure working environment

DATA ANALYSTS DEMONSTRATE THE FOLLOWING SKILLS, AND ARE ABLE TO:

- Identify, collect and migrate data to/from a range of internal and external systems
- Manipulate and link different data sets as required
- Interpret and apply the organisations data and information security standards, policies and procedures to data management activities
- Collect and compile data from different sources
- Perform database queries across multiple tables to extract data for analysis
- Perform routine statistical analyses and ad-hoc queries
- 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
- Assist production of performance dashboards and reports

- Assist with data quality checking and cleansing
- Apply the tools and techniques for data analysis, data visualisation and presentation
- Assist with the production of a range of ad-hoc and standard data analysis reports
- Summarise and present the results of data analysis to a range of stakeholders making recommendations
- Works with the organisation's data architecture

DURATION

Typical duration is 24 months for new entrants.

ENTRY REQUIREMENTS

Individual employers will set the selection criteria, but this might include five GCSEs and/or A levels; a Level 3 Apprenticeship; other relevant qualifications and experience; or an aptitude test with a focus on functional maths.

ENGLISH AND MATHS

During each session with their tutor Apprentices without level 2 English and Maths will work towards achieving this. Level 2 English and Maths is required prior to taking the end-point assessment for this Apprenticeship.

FUNCTIONAL SKILLS (FS)

These will be completed taking in to account prior attainment and in conjunction with the initial assessments and diagnostics achieved through SkillsBuilder. Tutors will identify suitable opportunities to embed FS throughout the duration of the programme. Additional support should be arranged where a need or requirement is identified.

GATEWAY

Prior to undertaking the End-Point Assessment:

- the Apprentice must have completed training ensuring they can consistently demonstrate competence against all elements of the Apprenticeship standard
- Apprentices without English and Maths at level 2 must achieve this level
- an appropriate workplace project for the end-point assessment must be agreed for the Apprentice, based on their current job role
- Apprentices must have examples of work that they can use for reference in the professional dialogue and interview covering the knowledge, skills and behaviours being assessed by this assessment method
- The employer will judge whether the Apprentice is ready for the end-point assessment; they may wish to take advice from the training provider

END-POINT ASSESSMENT

To achieve final certification the Apprentice must have an appropriate place with internet to undertake the End-Point Assessment (EPA).

The final EPA is completed in the last few months of the Apprenticeship. It is based on:

A portfolio – produced towards the end of the Apprenticeship, containing evidence from real work projects which have been completed during the Apprenticeship, usually towards the end, and which, taken together, cover the totality of the standard, and which is assessed as part of the EPA. The portfolio provides evidence against the totality of the standard, based on the application of knowledge, competence and behaviors to real work projects in the work environment. This is key to ensure the validity of the final assessment decision.

A project - giving the apprentice the opportunity to undertake a business-related project over a one-week period away from the day to day workplace. The project provides evidence against a selected set of knowledge, competencies and behaviours against a pre-defined project undertaken in a controlled environment. This is key to ensure consistency and comparability, increasing the accuracy of the assessment decision.

An employer reference - This provides the employer's perspective on how the Apprentice has performed in the workplace and how they have applied their knowledge, competencies and behaviours in work projects.

A structured interview with an assessor - exploring what has been produced in the portfolio and the project as well as looking at how it has been produced. The interview provides an opportunity for further evidence to be gathered and/or evidence to be explored in more detail against any of the knowledge, competence or behaviours. This also increases accuracy and validity.

An independent assessor will assess each element of the EPA and will then decide whether to award successful apprentices with a pass, a merit or a distinction.

PASS REQUIREMENTS

The Apprenticeship includes Fail, Pass, Merit and Distinction grades which are awarded at the end point assessment. The final grade is based on the overall performance in the Practical Observation, Work Based Project and Professional Discussion.

If an Apprentice fails any part of the end-point assessment, then it a fail.

Pass Apprentices must meet all pass criteria in all assessment methods.

Merit Apprentices must meet all pass criteria and merit criteria in all assessment methods.

Distinction Apprentices must meet all the pass criteria and distinction criteria in all assessment methods.

A full list of pass and distinction criteria can be found at **www.instituteforapprenticeships.org**

EXPECTATIONS

Student

- Preparation and planning
- Mandatory attendance for sessions
- Completion of tasks in agreed timeframe
- 20% off-the-job
- Functional Skills (where needed)
- Taking responsibility for own development
- Communicate support needs
- Coordinate development checks
- Create a learning record

Manager

- Facilitate time for learning
- Monthly 1-2-1 reviews with students to discuss progress, provide feedback and guide development
- Create and provide opportunities for student to participate in relevant work place tasks
- Keep an open communication lines with the student and employer
- Provide learning opportunities
- 20% off-the-job

Tutor

- Teaching
- Monitor progress
- Coach
- Feedback
- Online support
- Marking and assessment
- Preparation for final assessment
- Communicate with student and employer

20% OFF-THE-JOB TRAINING

Each Apprenticeship Standard requires the Apprentice to undertake a minimum of 20% of learning off-the-job.

This can include training that is delivered at the normal place of work, within normal working hours, but must not be delivered as part of normal working duties.

There are numerous activities which count towards this training, for example, listening to Podcasts, self-study, completing assignments and observing senior colleagues.

Introduction to Programme: Meet the team and explain your learning journey. Eligibility checks and initial assessments will be undertaken. You will be introduced to learning methods of the programme. *Delivery Mode: Pre-work, Online learning, Review*

Module 1 - Data Analysis Tools: During this session you will learn and develop ways to proactively keep your service, industry and best practice knowledge and skills up-to-date and will consider personal goals relating to service and take action towards achieving them. *Delivery Mode: Pre-work, Online learning, Review*
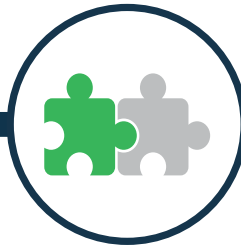
Module 2 - Data Analysis Concepts: You will keep current knowledge and understanding of regulatory considerations, drivers and impacts in relation to how you deliver for customers and you will understand your business environment and culture and the position of customer service within it. *Delivery Mode: Pre-work, Online learning, Review*

Gateway Review: Review of learning and development of knowledge, skills and behaviours within the standards and preparation for End Point Assessment. *Delivery Mode: Pre-work, Online learning, Gateway Review, review*

End Point Assessment: Completed by End Point Assessment Organisation (EPAO) selected by Employer. Please see EPAO Assessment Plan Guidance and EPA Assessment Plan for detailed guidance on assessment activities. *Delivery Mode: Knowledge test, Project & Presentation, Profession discussion and interview*