



SCOTLAND

Apprenticeship Programme Guide

DATA ESSENTIALS SCQF 6



QA.com

DIGITAL AND TECH APPRENTICESHIPS

Building tech careers in the workplace

We offer digital and tech apprenticeships that focus on the most in-demand skills including; cyber, IT, software development, data and digital marketing, along with others in project management.

We help learners to progress and grow within your company, helping you retain talent and build capabilities.

Our award-winning approach to blended learning enables apprentices to develop further and faster, adding immediate value to their roles, whilst our interactive portal with real-time dashboards and trigger alerts enable managers to effectively and efficiently track progress.



Experience: 20,000 apprenticeships placed



An unrivalled talent pool:
In Scotland, 20,000 apply to join our programmes every year



Proven:
We have high learner achievement rates*

*Over 800 Learners achieved their Apprenticeship with QA in 2022



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ROLE PROFILE

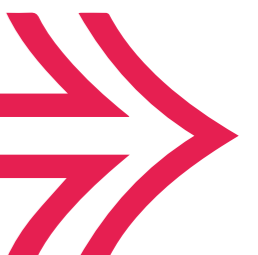
DATA ESSENTIALS SCQF 6

This programme has been designed to provide learners with all the knowledge and performance skills required to support data knowledge development and progression.

Learners do not need any prior experience.

This course will enable them to:

- Gain both a theoretical and practical understanding of data sources
- Understand data manipulation and storage
- Identify quality issues and address them using suitable tools and techniques
- Prepare and clean data sets ready for analysis
- Use visualisation tools to support effective data-driven solutions.



TYPICAL JOB ROLES

Upon completion of this course learners will be equipped to work in roles such as:

- Data Technician
- Junior Data Analyst
- Junior Data Insight Analyst
- Junior Data Visualisation Engineer
- Junior Business Intelligence Analyst

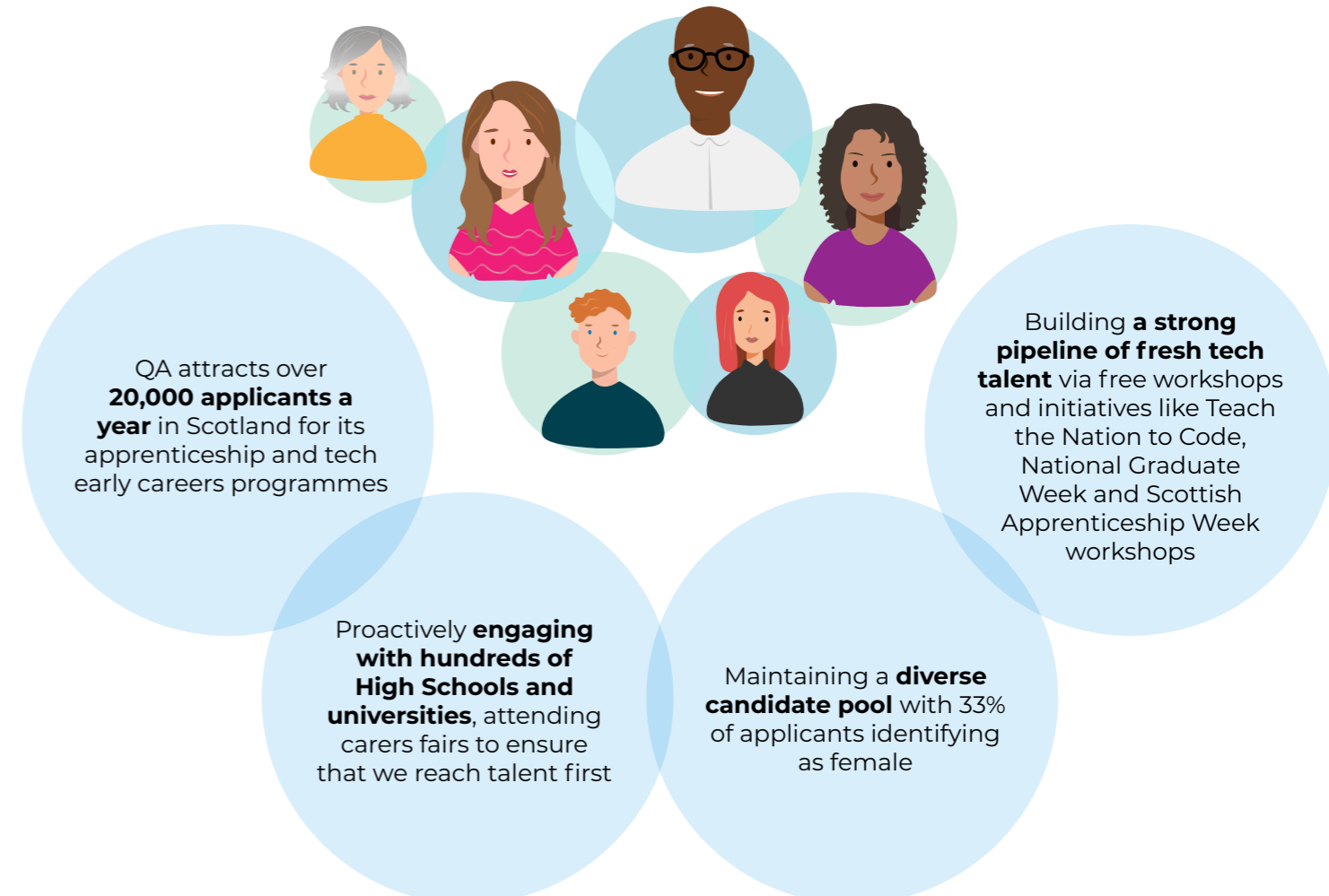
Additional roles to support: finance, sales, operations, and wider business stakeholder roles



FINDING NEW TALENT

We offer an extensive attraction and recruitment service for employers who are looking to use apprenticeships to bring new talent into their organisation. We use multiple channels and tactics to attract people who are interested in and are passionate about building a career in tech. Our recruitment model includes 1-2-1 interviews to ensure we select apprentices of the highest calibre.

We are committed to increasing diversity and tech and to help achieve this, we work closely with special interest groups and charities including; Code First Girls, Developing The Young Workforce, and LTSB (Leadership Through Sports and Business) who are a social mobility charity. This ensures apprentices from all backgrounds are given the same opportunities, and supports us to close the gender and diversity gap in tech.



DIVERSITY AND INCLUSION

We're passionate about diversity in tech

It's our mission to help eradicate the gender gap, and make sure equal opportunities are given to applicants from all backgrounds. We do this through our long-standing partnerships, QA-driven initiatives and use of trending tools and software.

Diversity-first candidate attraction

We've invested in using augmented copy checking tools to ensure language is inclusive, open to all and free from bias.

We use inclusive imagery throughout our campaigns – producing visual content that promotes diversity and inclusion.

Promoting inclusivity

We nurture relationships with influencers, schools, colleges and universities via events and interactive sessions to ensure learners from all backgrounds are given the same opportunities.

Diversity partnerships

We forge partnerships with like-minded organisations who share our vision on STEM gender equality including; DYW, Code First: Girls, Stemettes and Young Professionals.

Initial Assessment

Every candidate goes through an initial assessment where their current knowledge and skills are measured and mapped against the apprenticeship framework.

This process is an assessment of the apprentice's suitability for an apprenticeship programme, and ensures they are placed on the right programme at the right time. This contributes towards a successful completion and a good learner experience.

A BLENDED APPROACH TO LEARNING

How we deliver

QA's apprenticeships are designed to immerse the apprentice in their job role while providing time for them to complete the training to become occupationally competent.

QA Apprenticeships also provide more flexibility for the employer, allowing apprentices to learn through a combination of project and lab work, live events, self-research, self-paced learning and peer-to-peer learning.

Employer coaching, shadowing and mentoring remain essential, however, there will be more defined requirements to guarantee this is directly related to the apprenticeship and will be part of the training plan.



LEARNER SUPPORT



Safeguarding at QA

Preparing for risks to safety and harmful views is the proactive route to keeping everyone safe.

At QA we encourage critical thinking, ensuring that staff and learners have an opportunity to challenge beliefs or examples of dangerous behaviours. Staff will work to identify trends and local risks, to promote learner safety.

This includes cyber risks, mental and physical health information, risks of radicalisation or grooming and much more.

Ways to access support if you are worried for yourself or someone else:

- Call us – anytime 07808 050273
- Email: safeguarding@qa.com
- Contact your Skills Coach, tutor or account manager
- Speak to any member of QA staff onsite



Prevent at QA

Prevent is part of the Government's counter-terrorism strategy.

At QA, this means we teach our staff and learners about the four British values: democracy, rule of law, individual liberty and respect and tolerance.

We also work with Prevent partners to identify people at risk of being or causing terror related harm.



Mental Health at QA

Emotional and mental wellbeing is an important component of successful learning.

Understanding how to protect mental health and promote emotional wellbeing is part of maintaining positive mental welfare.

We will always actively encourage conversations and make sure information is readily available to both learners and staff with regards to mental wellbeing.



DIGITAL BY DESIGN APPRENTICESHIP PROGRAMMES

Digital by Design programmes

QA Digital by Design apprenticeships provide a greater focus on online learning together with using live interaction where it adds the most value for learners.

It means that there is a single learner journey which brings teaching, coaching, learning and assessment into a single, repeatable flow for every module.

In Digital by Design, these three elements will work together:

- The content
- The service and support
- The technology

Discover, practise and apply

All QA apprenticeships use a guided discovery approach to learning, as opposed to traditional methods of delivery such as live events. This shifts the emphasis from content delivery to our learners and their context, resulting in the apprentice feeling empowered to take ownership of their learning experience through the “Discover, Practise, Apply” model.



DISCOVER

Learners will learn the theory, by exploring subjects online and in the live events.



PRACTISE

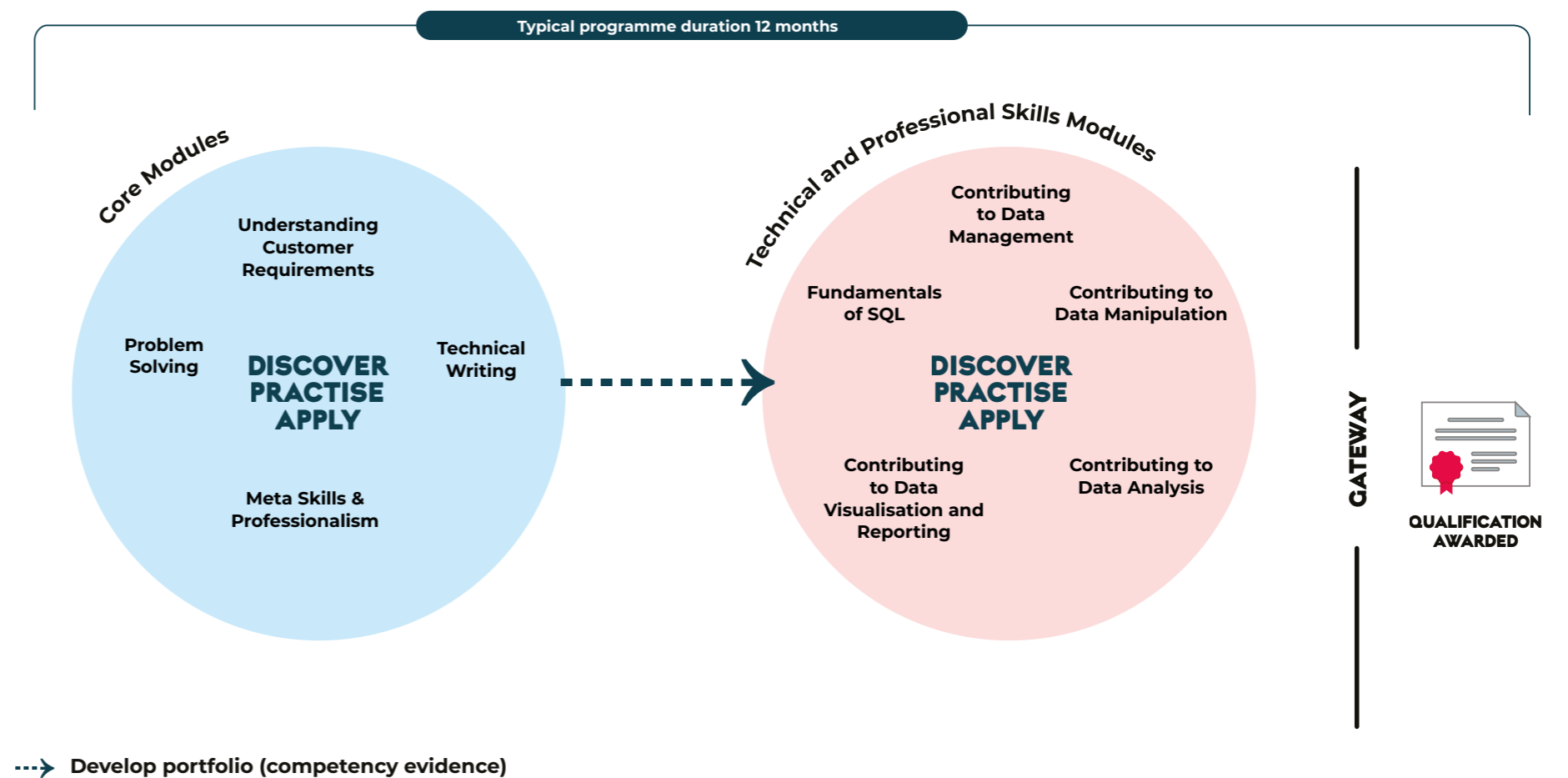
Learners will practise their new-found knowledge by completing activities - online, in the live events and (most importantly) directly at work in their day-to-day role.



APPLY

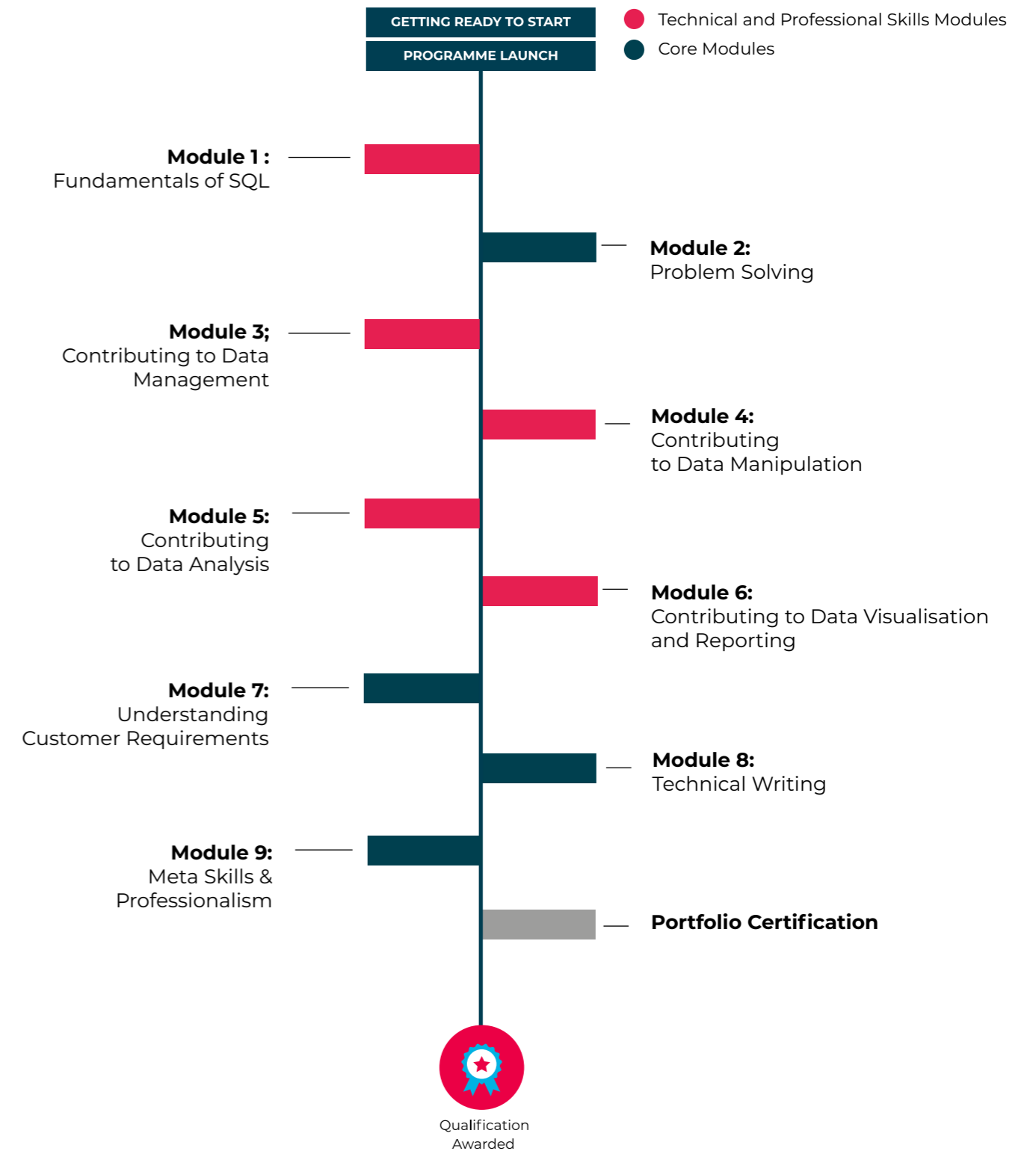
Learners will apply what they've discovered and practised at work. They will actively contribute to your organisation whilst building their portfolio of evidence (showing how they've applied their new skills) to gain their qualification.

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THE LEARNER'S JOURNEY

Programme timeline | Duration: Typical programme duration 12 months



PROGRAMME STRUCTURE

Programme Launch

The Programme Launch will introduce learners to the Data L6 Apprenticeship, this module will be introduced by a digital session covering:

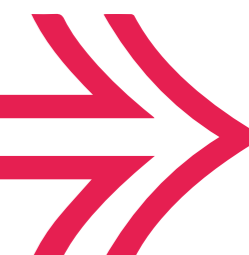
- The Programme outline and structure, Core and Technical modules
- Assessment/Certification/Qualifications
- Time commitment, planning calendar, mapping document for L6 Data
- Setting expectations
- Introduce Bud, Cloud Academy and other technology requirements
- Introduce Technical Upskilling Module on SQL

Assessment

There are no tests or exams involved in completing this apprenticeship. All learners will complete a portfolio of evidence, based on the modules completed on programme. Learners will be guided by their skills coach to achieve this.

There are a number of assessment methods that learners can use to generate and record evidence. Some of these are completed by themselves, such as personal reflective statements and product evidence (annotated screenshots).

Additionally, learners can collaborate with their skills coach to carry out presentations, observations, questioning and professional recorded discussions. Your employer may also provide witness testimonies on your behalf. These assessment methods are used to capture a learner's knowledge and skills across the range of competencies.



THE CORE, TECHNICAL & PROFESSIONAL SKILLS MODULES

The technical and core modules focus on the knowledge and skills required in detail. After each module learners will 'apply' what they've learned at work on current projects.

- Technical and Professional Skills Modules
- Core Modules

Module 1: ● Fundamentals of SQL

This module facilitates individuals in understanding the fundamentals of SQL. Practical activities and hands-on tasks will be provided to support individuals in understanding SQL and how it is used within different environments. This learning path will also support more advanced data modelling understanding, embedded within the technical modules.

- Module duration: 2 weeks
- Classroom attendance: 2 days

Module 2: ● Problem Solving

In this module learners will develop core problem solving knowledge, enabling them to support and solve problems in line with organisational procedures. By completing the digital learning, learners gain an understanding of the end to end problem solving process, including; problem solving tools and techniques, trouble shooting, problem diagnosis, problem analysis, resolution planning, solution implementation and documenting of outcomes. In the one-day workshop learners will practise their problem solving skills through practical scenario exploration, putting the knowledge gained from the digital learning into action, in a safe environment.

- Module duration: 4 weeks
- Classroom attendance: 1 day

Module 3: ● Contributing to Data Management

This module introduces how organisational data management practices can be applied, to improve the quality of data handling and sharing securely within an organisation. Individuals will have an understanding of the types of data an organisation uses, how and where data is stored and the procedures that apply to accessing and sharing data securely. In addition, individuals will be able to interpret data models to determine the relationships and data flows that exist within data and provide documentation to support data management activities.

- Module duration: 6 weeks
- Classroom attendance: 2 days

Module 4: ● Contributing to Data Manipulation

This module facilitates individuals in understanding and supporting dataset requirements. Individuals will understand how datasets can be sourced, and reviewed in terms of common data quality issues. Individuals will support in ensuring that data sets are clean and error-free by applying a range of data manipulation tools and techniques. Understanding, and working in line with industry standard practice and organisational procedures, will provide further vocational context.

- Module duration: 6 weeks
- Classroom attendance: 2 days

Module 5: ● Contributing to Data Analysis

This module provides an overview of data analysis, in terms of what and who it involves and the steps towards checking and validating analysis results. Individuals will contribute to this process by understanding the fundamentals of data analysis, use tools and techniques to identify trends, relationships and patterns that can be used to inform wider stakeholders. This will include conducting exploratory data analysis to understand the data, performing basic statistical analysis, and producing reports of findings.

- Module Duration: 6 weeks
- Classroom attendance: 2 days

Module 6: ● Contributing to Data Visualisation and Reporting

This module supports individuals in understanding, reviewing, creating and presenting visualisations and reports. This also includes applying automation to visualisation and reporting processes. Individuals will contribute to developing high quality data visualisations and data reports to provide easy to interpret data insights for different audiences and stakeholders.

- Module Duration: 6 weeks
- Classroom attendance: 2 days

Module 7: ●
Understanding Customer Requirements

In this module learners develop their fundamental knowledge of project delivery, enabling them to effectively support project delivery in their place of work.

Learners will work through the digital learning gaining a theoretical appreciation of: project delivery, stakeholder management, requirement definition, task and project planning, risk management and effective communication.

- Module duration: 4 weeks
- Classroom attendance: 1 day

Module 8: ●
Technical Writing

In this online module, learners will enhance their knowledge and understanding of workplace documentation, enabling the apprentice to produce and update documents for customers, colleagues and users in line with organisational process.

Learners will work through digital content covering document planning, creation and formatting, developing their understanding of audience needs, graphical and visualisation considerations, version control, quality assurance and storage.

- Module duration: 3 weeks
- Classroom attendance: N/A

Module 9: ●
Meta Skills & Professionalism

In this online module learners develop their core knowledge of Meta Skills and Personal Practice. Enabling learners to understand the purpose and importance of meta-skills, how they relate to one's work and how to use reflective practice to identify gaps in knowledge and skills.

Recognise the importance and purpose of meta-skills and how they relate to their work.

Learn how to set SMART goals, prepare development plans, and identify sources of up-to-date information to support continuous professional development.

Describe the benefits and impact of Personal and Professional Development, including how to measure and record progress against key performance indicators.

Develop strategies for managing well-being in the workplace and seeking and acting on feedback to improve skills and knowledge using various learning models and styles.

- Module duration: 3 weeks
- Classroom attendance: N/A

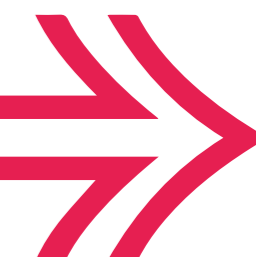
Qualifications earned



When they achieve this apprenticeship, learners will earn the following qualifications:

- Data Essentials SCQF L6

- Technical and Professional Skills Modules
- Core Modules



LEARNING OUTCOMES

Apprentices will be assessed on all areas which emphasise the importance of both technical and core skills in the workplace.

CORE MODULES:

Problem Solving

- Introduction to Problem Solving
- Identifying, Diagnosing and Analysing Problems
- Planning Resolutions
- Implementing and Assessing Solutions
- Documenting Problems and Learning From Experience

Understanding Customer Requirements

- Introduction to Projects
- Stakeholders and Communications
- Project and Task Planning
- Tracking and Reporting Progress

Technical Writing

- Introduction to Documentation
- Industry Standards, Regulation and Policy
- Planning and Formatting
- Document Creation
- Graphics and Visualisation
- Version Control and Sign Off

Meta Skills & Professionalism

- What are Meta Skills
- Personal Development
- Learning Styles
- Performance Reviews
- SMART Objectives
- Wellbeing

TECHNICAL AND PROFESSIONAL MODULES:

Fundamentals of SQL

- Understanding the Fundamentals of SQL.

Contributing to Data Management

- Data Structures, Models and Formats
- Data Security, Governance and Management

Contributing to Data Manipulation

- Understand and Manipulate Data Sets
- Determining Data Set Requirements
- Data Quality Issues

Contributing to Data Analysis

- Understanding the Fundamentals of Data Analysis
- Understanding Analytical and Graphical Tools for Analysis
- Understanding Data Insights and Data Analysis Outcomes

Understanding Data Visualisation and Reporting

- Understand the Processes and Importance of Visualisations
- Visualisations, Dashboards and Reports
- Understand How to Present Visualisations



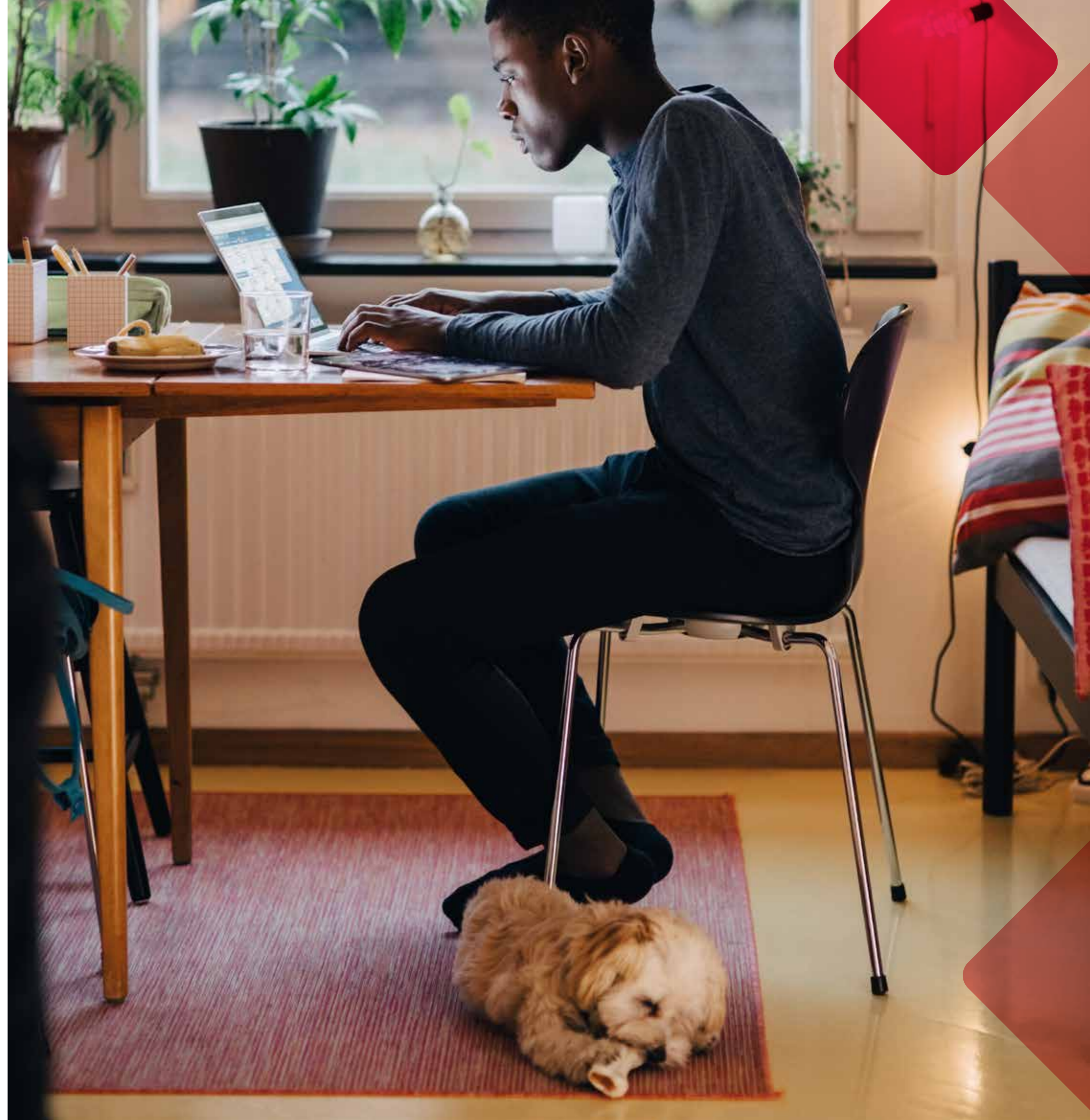
EXPANDING YOUR TECHNICAL SKILLS WITH cloud academy A QA COMPANY

Our apprentices are given full access to our proprietary Cloud Academy platform for the duration of their programme.

Cloud Academy brings the very latest and up-to-date content to our apprentices through single units, courses and comprehensive learning paths to really build on the core learning outcomes defined within the programme. Furthermore, apprentices are able to prepare for the full suite of vendor qualifications across AWS, GCP and Azure and much more.

Cloud Academy users also benefit from Hands-On Labs, Lab Challenges and Lab Playgrounds providing a safe, sandbox environment in which our learners are able to practise in real time through guided walkthroughs or through their own exploration.

Check out the [Training Library - Cloud Academy](#).



**FOR MORE
INFORMATION,
PLEASE CONTACT**

qa.com/contact

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