



SCOTLAND

Apprenticeship Programme Guide

# CYBER SECURITY SCQF 8



## 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

### CYBER SECURITY SCQF 8

This programme has been designed with the aim of providing a learner with all of the knowledge and performance skills required to identify and mitigate against malware types, potential cyber-crime attacks, and explore ways of securing networks and services using cryptography.

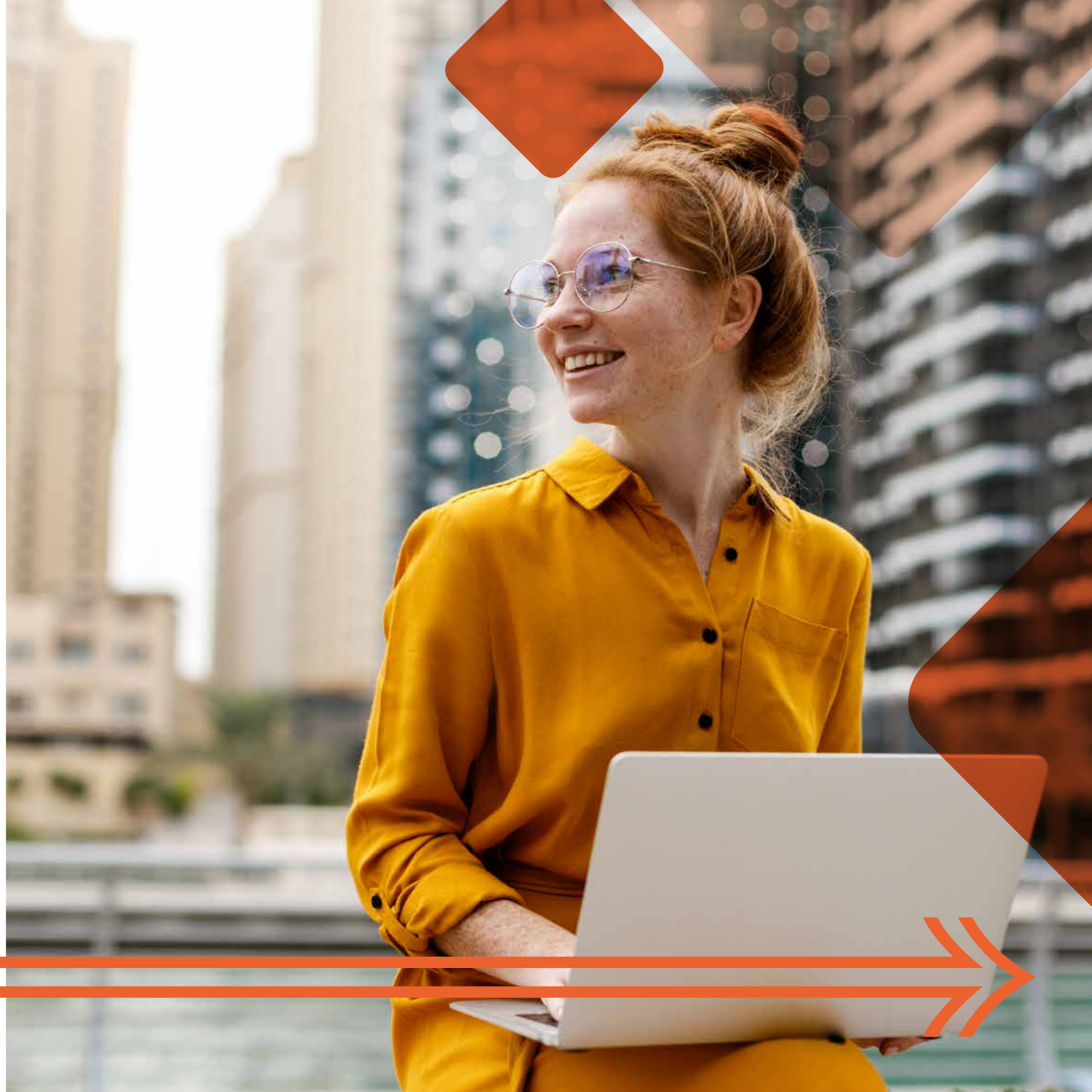
This programme develops a blend of technical skills across digital security, information assurance and risk management to make apprentices security aware and productive in a commercial setting.



# TYPICAL JOB ROLES

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

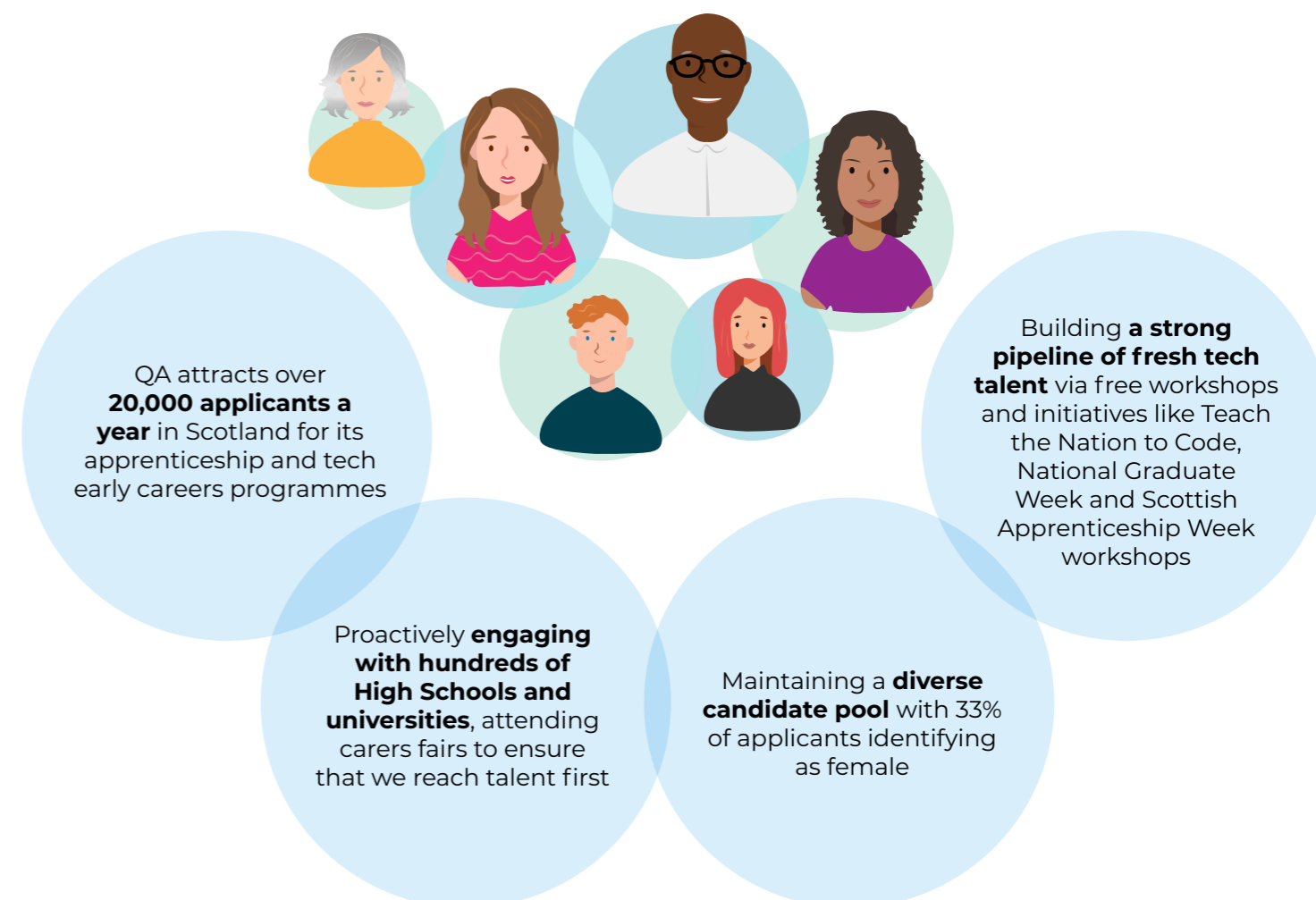
- Cyber Security (or Risk) Analyst
- Security Engineer
- Security Assurance & Threat Analyst
- Cyber Security Specialist



## 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](mailto: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

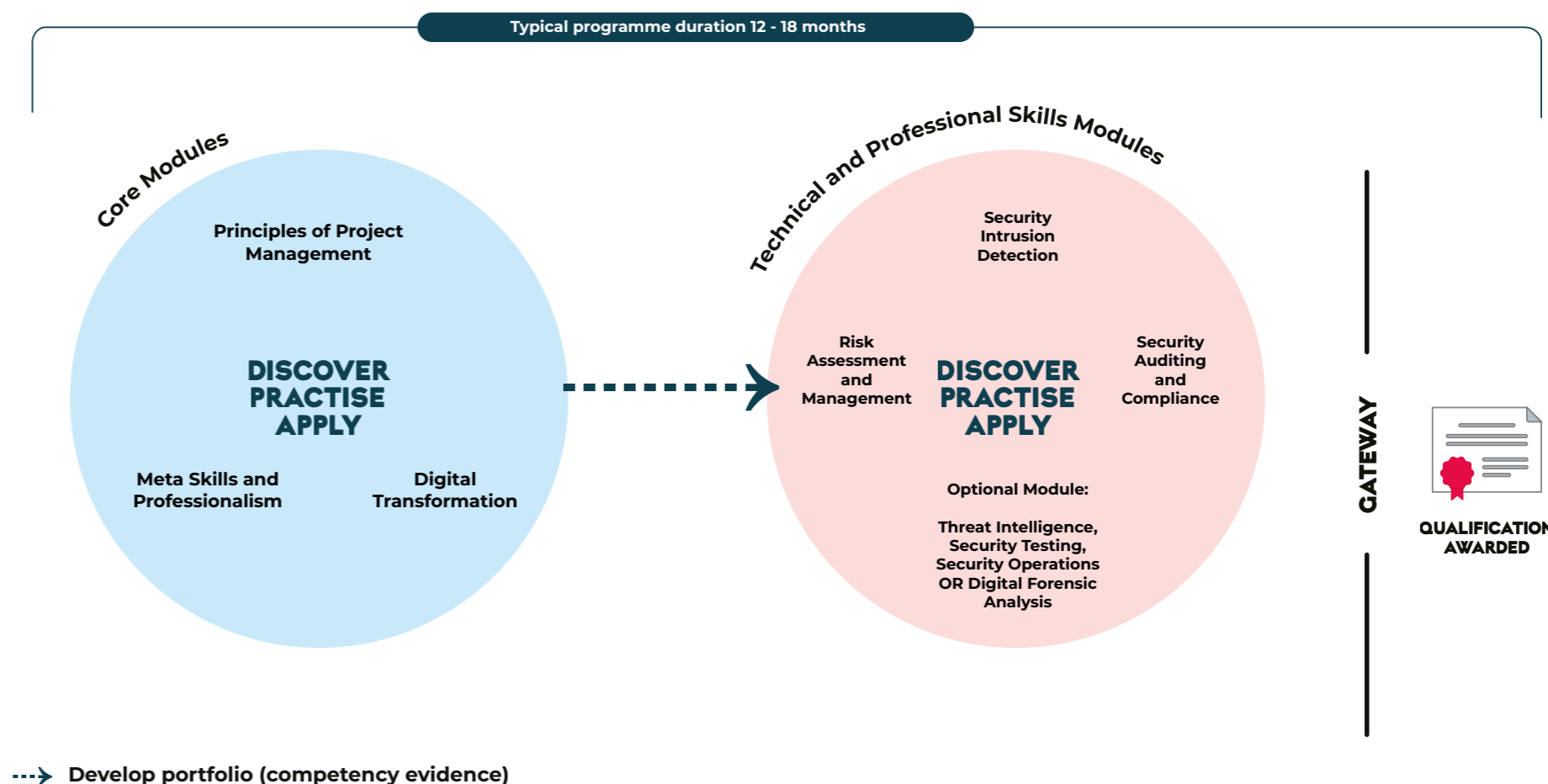
Learners will practise their new-found knowledge by completing activities - online, in the live events and (most importantly) directly at work in their day-to-day role.



### 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.

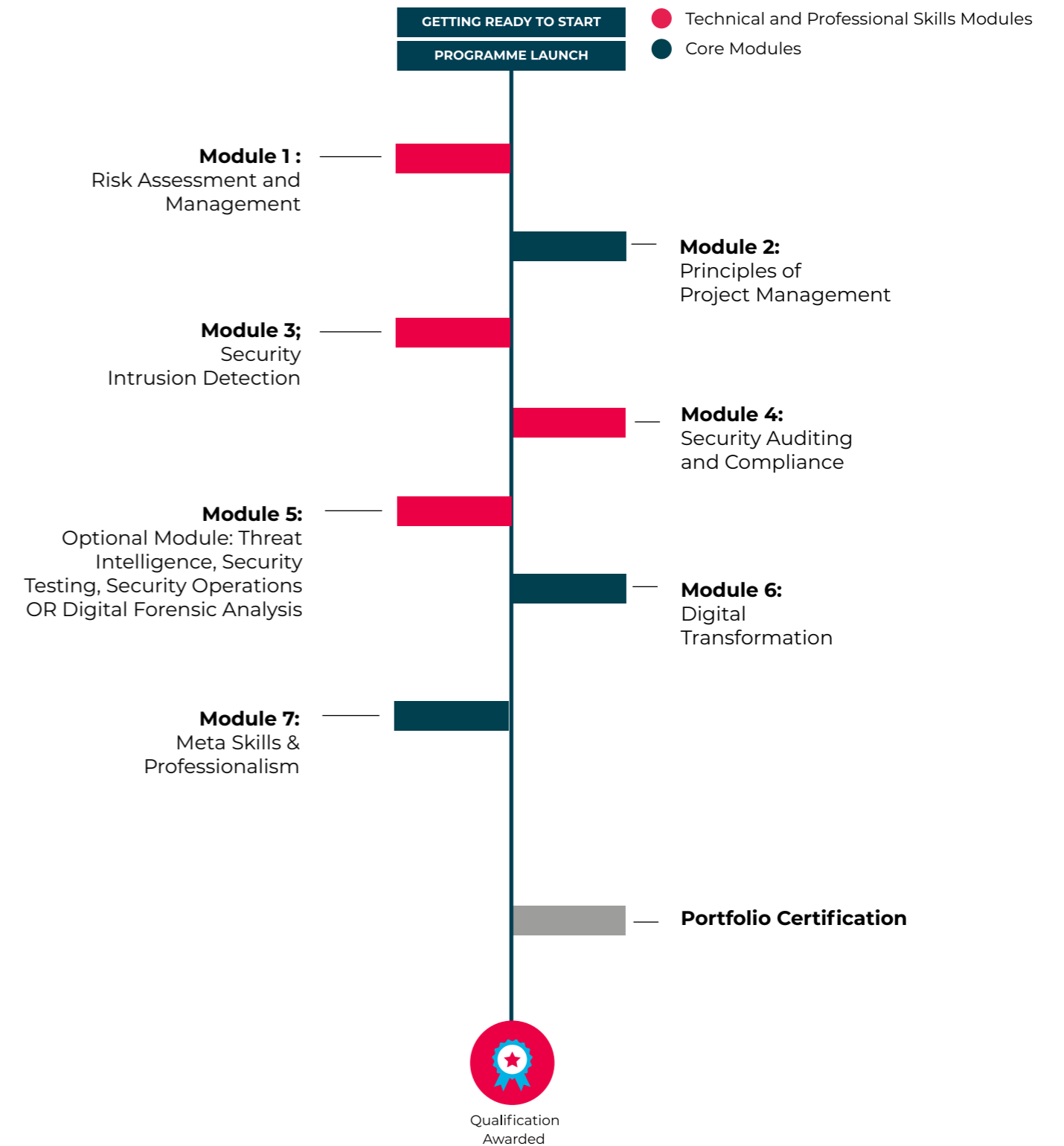
## Cyber Security SCQF 8





# THE LEARNER'S JOURNEY

**Programme timeline | Duration:** Typical programme duration 12 - 18 months



# PROGRAMME STRUCTURE

## Programme Launch

The Programme Launch will introduce learners to the apprenticeship, this module is kicked off with a digital session covering:

- The programme outline, workflow and structure
- Assessment/Certification/Qualifications
- Time commitment, planning calendar for apprenticeship
- Setting expectations
- Introduce bud, Cloud Academy and other technology requirements
- Day-1 learning activity introducing learners to the role of a Cyber Security Professional
- During the session, learners will complete the day one learning activity during which they experience the Security role by working through a scenario.
- As part of this activity the apprentice will be required to complete a simple risk assessment.
- (The day one activity requires authoring; it should present a fun/accessible risk assessment-based scenario where the learner is exported to the role)

## 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.

## Module 1: ● Risk Assessment and Management

This module gives learners a foundational understanding of IT security and the risks and threats that are present when operating small to large-scale systems locally and in the cloud.

Learners will focus specifically on the risk assessment and management of said risks in this module, using industry-standard methodologies to carry out risk assessments and understand the security posture of an organisation.

- Module duration: 7 weeks
- Classroom attendance: 3 days

## Module 2: ● Principles of Project Management

This module introduces learners to the world of project management and explores the fundamental business concepts of legislation, codes of practice, safe systems of work, and risk and impact assessments for project activities.

As a result of this module learners will be able to:

- Understand different methodologies for planning and delivering project activities.
- Creating effective business cases
- Identify and analyse risks and opportunities using appropriate tools and processes, including quantitative and qualitative measures of risk analysis
- Explain the importance of monitoring and controlling a project, including using industry-specific tools and software, and establishing change control processes.
- Develop skills in evaluating and monitoring the benefits and challenges of project activities, presenting progress to stakeholders in different ways and formats, and effectively liaising with internal and external stakeholders.

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

## Module 3: ● Security Intrusion Detection

This module deep-dives into the technical nuances of intrusion detection and prevention systems and they can be used for monitoring, root cause analysis and intrusion response.

Learners will gain an understanding of networking before understanding how to observe, analyse, report and respond to threats and risks via security tooling.

- Module duration: 8 weeks
- Classroom attendance: 4 days

## Module 4: ● Security Auditing and Compliance

This module gives learners a full understanding of the underlying governance and compliance legislation security professionals are to abide by when working in an IT security environment.

Learners will gain knowledge of the policies and standards required to work towards with people, data and systems, both organisation-level and legal regulation-level.

- Module duration: 7 weeks
- Classroom attendance: 2 days

- Technical and Professional Skills Modules
- Core Modules



### Module 5a: ● Threat Intelligence

This optional module will provide a more thorough look into the world of threat and vulnerability analysis. Learners will gain an appreciation of internal and external threats to an IT system, and how to identify, manage, monitor and report on threats in the workplace.

- Module duration: 6 weeks
- Classroom attendance: N/A

### Module 5b: ● Security Testing

This optional module will deep-dive into the theory and practical application of testing in an IT security context. Learners will gain an understanding of how security testing on a network and system level works towards security assurance, as well as how to spot, manage and report on vulnerabilities within a system.

- Module duration: 6 weeks
- Classroom attendance: N/A

### Module 5c: ● Security Operations

This optional module will give learners an appreciation of the operational aspect of security management within an organisation. Learners will gain an understanding of all areas that need to be considered in a security roll-out, and how to manage patches, impact analysis, backup/recovery and more whilst maintaining business continuity.

- Module duration: 6 weeks
- Classroom attendance: N/A

### Module 5d: ● Digital Forensic Analysis

This optional module gives learners an understanding of digital forensics and how to manage internal and external evidence within IT security in a compliant manner. Learners will gain knowledge on how to work with open source and commercial forensic tools to identify breaches and acquire evidence to further action.

- Module duration: 6 weeks
- Classroom attendance: N/A

### Module 6: ● Digital Transformation

In this blended module learners develop core knowledge of the Digital Transformation.

- Demonstrate the significance of digital transformation in businesses and the principles of business change.
- Develop skills in modelling business processes and formulating proposals for new digital technology solutions, including cost-benefit analysis.
- Identify the legislative and regulatory requirements, organisational policies, and safe use of digital technology equipment in the workplace.
- Explain how digital technologies can be integrated within business processes to reduce costs, enhance performance, and improve productivity and service benefits.
- Recognise the current issues and ethical aspects associated with the implementation of digital transformation in businesses.

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

### Module 7: ● Meta Skills & Professionalism

In this online module learners develop their core knowledge of Meta Skills and Professionalism. 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 impact of personal professionalism within the organisation and develop strategies to participate effectively in performance reviews.
- 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 CPD, 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 qualification:

- Cyber Security L8

- 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:

### Principles of Project Management

- Introduction to Projects
- Stakeholders
- Business Cases
- Project Planning
- Risk Management
- Project Monitoring and Change Control
- Closing a Project

### Digital Transformation

- Introduction to Digital Transformation and Digital Economy
- Business Processes
- Benefits of Digital Transformation
- Implementation of Digital Change
- Legal Landscape
- Professional Standards
- Safe use of Digital Technology

### Meta Skills and Professionalism

- What are Meta Skills
- Personal Professionalism
- How People Learn
- Personal Reflection and Performance Reviews
- SMART Objective Setting
- Development Plans, Career Planning and CPD
- Feedback
- Wellbeing

## TECHNICAL AND PROFESSIONAL MODULES:

### Risk Assessment and Management

- Cyber Primer
- Cyber Attacks & Prevention
- CompTIA Security+

### Security Intrusion Detection

- Computing and Networks Fundamentals Pathway
- Network Security Technologies

### Security Auditing and Compliance

- Monitoring and Response
- IT Security Fundamentals

### Optional Modules (learners to pick one optional module)

- Threat Intelligence
- Security Testing
- Security Operations
- Digital Forensic Analysis



# EXPANDING YOUR TECHNICAL SKILLS WITH cloud academy

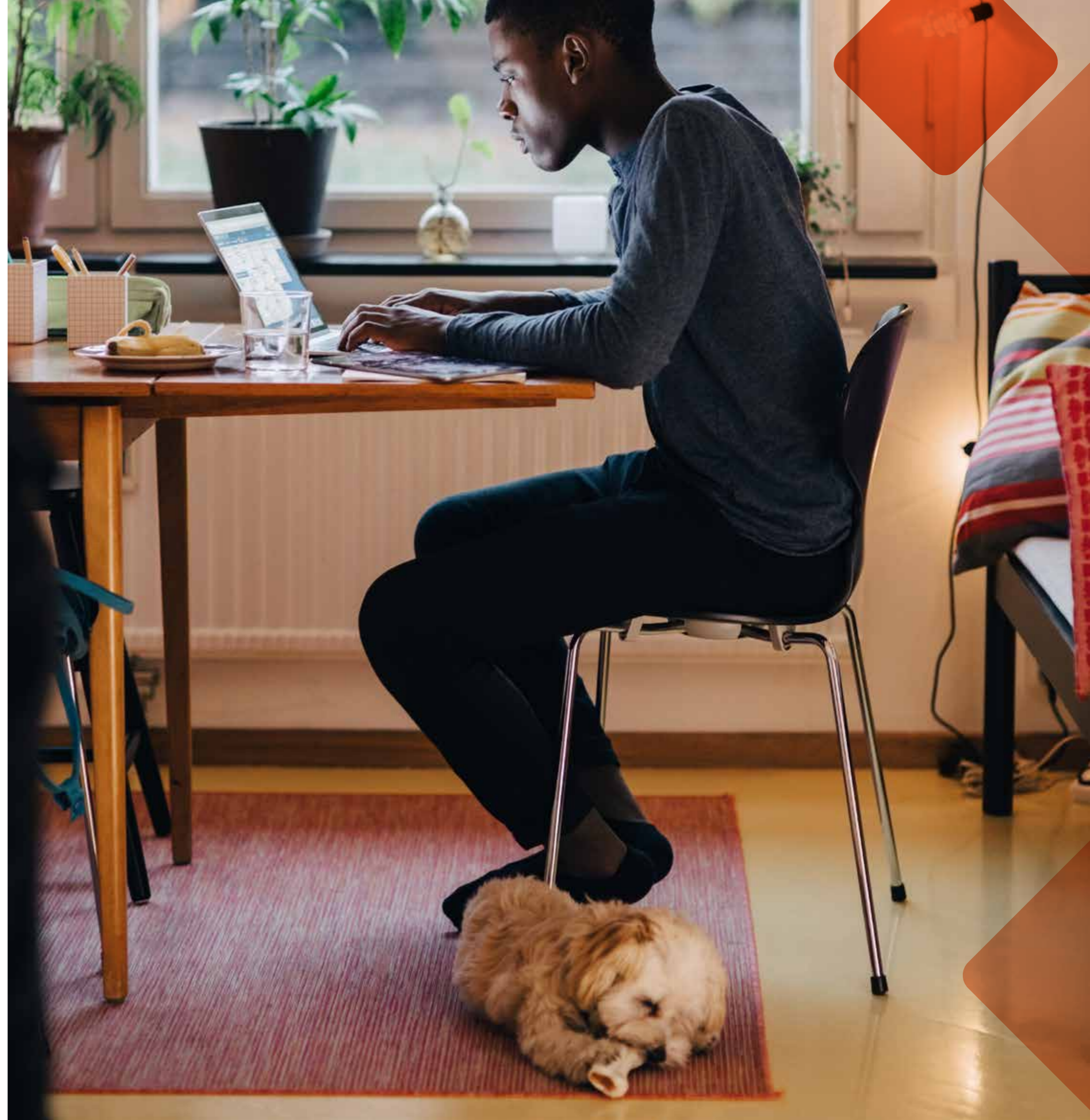
A QA COMPANY

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](https://qa.com/contact)

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