

## Role and person profile

Post title:	<b>Senior Developer: Biz Talk, Java, PL/SQL/COBOL</b>	Location:	<b>Guildford/Manchester</b>
Division:	<b>Business Solutions Group</b>	Department:	<b>Software Solutions</b>
Responsible to:	<b>Software Development Manager</b>	Responsible for:	<b>n/a</b>
Scale:	<b>6</b>	Cornerstone behaviours level:	<b>Performer</b>
Post no:	<b>316 (PL/SQL/COBOL), 1673 (PL/SQL/COBOL), 2876, 2885 (Java), 2900 (PL/SQL/COBOL), 2901 (PL/SQL/COBOL)</b>		

### Purpose

To provide hands-on delivery for the development and maintenance of software solutions for AQA's key operational systems and processes – including software systems themselves and the integrations between them.

To help complete AQA's ongoing transition to a single, consistent set of cloud-based technologies (technology re-platform) and move to an agile delivery model in line with current software development best practices (Scrum/Kanban; continuous delivery) by contributing to the continuous improvement and enhancement of that technology for new and changing business needs.

To share knowledge and expertise with other software developers at all levels, through demonstrations, team meetings, lunch and learns, etc as well as formal written documentation.

### Key accountabilities

1. Deliver software solutions and software changes, following best practice and guidance on software design, development, architectural best practice and delivery, in own area of specialism (BizTalk/Java /PL/SQL/Cobol).
2. Provide support to other team members on software design and development in your area of technical specialism.
3. Develop and maintain software in line with priorities agreed as part of sprint planning and product backlog management.
4. Provide assistance to the delivery of software through to production environments, including support for system testing, user acceptance testing and other acceptance processes.
5. Support software through the delivery of exam series, especially during the critical summer exam period.
6. Work with lead developers to translate overall architectural vision and high level design into working software – including helping to define software architecture when required.

7. Facilitate product backlog management and iteration planning by providing estimates providing information to inform development approaches and options in the context of delivery cost and risk.
8. Work with business, other technical teams and external partners to design, plan and deliver systems and systems integrations.
9. Develop and maintain software in accordance with current state-of-the-art development practices – including applying recognised design, architectural and integration patterns (SOLID principles, etc.) and software engineering techniques (TDD, BDD, Continuous Integration and Continuous Delivery etc).
10. Help to implement and continuously improve development practices, processes and tools aligned to agile and lean principles, under the direction of the Head of Software Development.
11. Keep systems of record (TFS, Sharepoint etc) up to date to maintain a clear audit trail of software development work undertaken – and in doing so support the production of clear and accurate reporting and metrics on software development activities.
12. Contribute to the continuous improvement of ways of working in Software Solutions and of wider departmental practices.
13. Keep abreast of current state-of-the-art software design and development practices by undertaking reading and attending external events, and share learnings within the Software Solutions group to ensure practices remain appropriate and up to date.
14. Deputise for work-stream delivery leads as required.

### General accountabilities

1. To model professional behaviours with confidence, especially the specific AQA and Business Solutions Group behavioural cornerstones.
2. To comply with all AQA's policies and other legislative requirements, including but not limited to HSE, Equal Opportunities and ISMS.
3. Where business needs change, to undertake other responsibilities which are of a commensurate level outside the terms of this role profile.

### Person profile

Knowledge	Assessment
A broad understanding of business in either a commercial or an educational environment	<b>A/I/P</b>
Advanced knowledge in your area of technical specialism – see <i>table below on page 4</i>	<b>A/I/P</b>
Good knowledge of current industry best practice in software design, development and architecture, including architectural and integration patterns and, SOLID principles	<b>A/I/P</b>
Proven experience in the application of agile engineering practices - TDD, BDD, Continuous Integration and Delivery etc	<b>A/I/P</b>
A general understanding of supporting technology such as server infrastructure, firewalls etc	<b>I/P</b>
Knowledge of cyber security risks, secure development practices and standards, eg OWASP	<b>I/P</b>
Knowledge of Source Code Control/Configuration Management	<b>A/I/P</b>
Qualification	
Degree level qualification in Software Engineering or a scientific discipline, or equivalent professional experience	<b>A</b>

<b>Skills</b>	
Ability to design and deliver systems and systems integrations with awareness of high availability and high volume requirements	<b>A/I/P</b>
Comfortable presenting to software delivery teams and working with people from both a business and technical background to design and deliver solutions	<b>P</b>
Ability to adapt to new approaches, technologies, tools and procedures	<b>I/P</b>
Proven aural, oral and written communication skills to explain issues to technical and non-technical staff	<b>I/P</b>
Demonstrable ability to produce clear and concise high quality documentation	<b>I/P</b>
Demonstrates facilitation and negotiation skills to produce desired outcomes, particularly in a technical context	<b>I/P</b>
Demonstrates excellent interpersonal skills in a variety of situations	<b>I/P</b>
Demonstrates resilience and calmness under pressure	<b>I/P</b>
Demonstrates willingness and can-do approach to resolving issues in and updating software code written by other developers or third parties and outside primary areas of expertise	<b>I/P</b>
Adept at problem solving in fast paced environments	<b>P</b>
Willingness to receive feedback and learn from mistakes for continuous self-development	<b>I/P</b>
<b>Leadership skills</b>	
Ability to take ownership of both software solution delivery and continuous improvement activities for small to medium sized projects	<b>I/P</b>
Ability to support others' individual development and wider departmental continuous improvement	<b>I/P</b>
Ability to develop and maintain effective working relationships with a range of partners and stakeholders	<b>I/P</b>
<b>Experience</b>	
Experience in delivering software using agile methods such as continuous delivery	<b>A/I/P</b>
Experience using Application Lifecycle Management tooling, eg TFS, JIRA etc	<b>I/P</b>
<p>Assessment key (criteria to be assessed at the selection stage)</p> <p><b>A</b> – application (it is <b>essential</b> to provide evidence on application for shortlisting purposes)</p> <p><b>I</b> - interview                      <b>T</b> – test (or work sample)                      <b>P</b> – probation</p>	

## Specific Knowledge and Experience Required for Technical Specialisms

Specialism	Knowledge and Experience Required	Assessment
Senior Developer (Biz Talk)	<p><b>Knowledge</b></p> <p>Advanced knowledge of BizTalk development and enterprise integration patterns</p> <p>Proven ability to design and deliver BizTalk-based systems integrations</p> <p>Broad knowledge across the Microsoft technology Stack, including .net and Azure</p>	<p><b>A/I/P</b></p> <p><b>I/P</b></p> <p><b>P</b></p>
	<p><b>Experience</b></p> <p>Demonstrable hands on experience of successfully developing and implementing BizTalk solutions</p> <p>Demonstrable hands on experience of developing software in a team environment using .NET/Java and SQL Server or Oracle</p>	<p><b>I/P</b></p> <p><b>I/P</b></p>
Senior Developer (Java)	<p><b>Knowledge</b></p> <p>Advanced knowledge of Java development, object-oriented design and design patterns/SOLID principles</p> <p>Advance knowledge of Java Ecosystem, including Maven/Gradle, profiling tools, build tools etc</p>	<p><b>A/I/P</b></p> <p><b>I/P</b></p>
	<p><b>Experience</b></p> <p>Demonstrable hands on experience of successfully developing and implementing Java solutions</p> <p>Demonstrable hands on experience of developing software in a team environment using Java and SQL Server or Oracle</p>	<p><b>I/P</b></p> <p><b>I/P</b></p>
Senior Developer (PL/SQL and/or COBOL)	<p><b>Knowledge</b></p> <p>Advanced knowledge of PL/SQL and/or COBOL development</p> <p>Advanced knowledge of Oracle performance profiling and performance optimisation</p>	<p><b>A/I/P</b></p> <p><b>A/I/P</b></p>
	<p><b>Experience</b></p> <p>Demonstrable hands on experience of successfully developing and implementing Oracle/COBOL solutions at scale and with high availability</p> <p>Demonstrable hands on experience of developing software in a team environment integrating Oracle/COBOL solutions with other technology</p>	<p><b>I/P</b></p> <p><b>I/P</b></p>