

Job title	Principal Software Engineer		
Job family	Technology, Systems and Delivery	Grade	9

Job purpose

Responsible for the design, implementation and operation of effective software and tools and sharing deep expertise in specific business and technology domains.

- Key responsibilities and accountabilities**
- Lead the design and development of effective software that meets given complex, strategic business needs for immediate team and broader BBC
 - Ensure alignment of the teams products and services with BBC technology and architecture strategy
 - Provide knowledge and best practice to the broader BBC in areas of deep expertise
 - Ensure the team’s approach to testing is fit for purpose
 - Lead integration of the software with monitoring and support tools
 - Provide technical knowledge, insight and leadership to peers and colleagues
 - Review and give constructive feedback on others’ code
 - Support product and departmental managers in communicating strategy and product fit and effectiveness to stakeholders at all levels
 - Ensure the team’s software works well in its operating environment
 - Be an expert on the BBC’s operating environments whom team members can consult. Play a part in shaping those operating environments
 - Ensure that the team’s technical product documentation is always complete, accurate and coherent
 - Lead troubleshooting and resolution of issues throughout the product life cycle including out of hours support for incident resolution
 - Work with other technical leaders in the broader organisation to define, document and distribute best practice and standards
 - Lead and encourage continuous improvement of the teams delivery and development processes
 - Effectively participate in the teams software development methodologies, such as pairing, code and documentation reviewing and continuous delivery
 - Work with project, product and technical leads to design software and create implementable specifications and tasks at product and roadmap level
 - Work with 3rd Party ("Indies") where necessary providing direction, support and documentation
 - Learn new technologies and keep abreast of existing technologies and help introduce them where appropriate

- Knowledge, skills, training and experience**
- Essential**
- Extensive experience designing and writing robust software for large scale applications in a fast changing environment with rapid release cycles
 - Expertise in multiple mainstream development frameworks
 - Expertise in business domains relevant to the BBC

- Expertise with mainstream development and deployment tool chains. (IDE, SCCS, CI)
- Expertise in database design and use in software applications
- Experience of open source practices
- Expertise in web architecture and key technologies (HTTP, DNS, distributed design)
- Expertise in test driven development and broader testing and QA concerns
- Leadership experience of project working and professional software development processes, including agile
- Expertise in choosing and applying design patterns
- Effective leadership and collaboration inside and beyond the team. The ability to influence diverse and senior stakeholders effectively
- Takes responsibility for driving products and system to success

Desirable

- Computer Science Degree
- Recruitment, management and mentoring experience
- Experience of supporting, modifying and maintaining systems and code developed by others
- Experience of talking in industry forums, interest groups or blogging and other broader industry engagement

Job impact

Decision making

- Reports to Software Engineering Manager or Executive Product Manager or Head of Software Engineering
- Understands and synthesizes BBC technology strategy and other strategic concerns to design appropriate software
- Makes independent decisions about the design and development of software systems to meet business and product needs. The systems are often long-lived and critical to success of audience output and supporting BBC business processes. The design has significant impact on capex and ongoing opex
- Leads on the test approach, integration of software and provides expert advice to team and management on the software operating environment. Oversee the correct completion of all technical product documentation and leads on troubleshooting
- Collaborating with stakeholders at all levels and product managers to understand business requirements and influence product requirements and design
- Collaborates on service design and operation
- Communicates the design and appropriate fit of the product/system to the business requirements to stakeholders of all levels
- Specify and document technical and operational requirements for 3rd party product procurements
- Manages design and implementation (via review and specification) of 3rd party software products and systems
- Communicates their products and work at appropriate industry forums, presenting the expertise and effectiveness of the BBC

Scope

Finance: Direct budget (for 3rd party work) £500k

Line Management: No line management responsibility

Ad-hoc Teams: Expected to participate in cross D&E technology and product strategy forums (up to 50 participants)

 Expected to participate and lead (teams up to 20) in cross organisation project/solution planning and Design

 Expected to participate in organisation, talent management and other strategic planning exercises

Other information	
For Reward team use only	
Job Code	
Definition:	Content

This job description is a written statement of the essential characteristics of the job, with its principal accountabilities, incorporating a note of the skills, knowledge and experience required for a satisfactory level of performance. This is not intended to be a complete, detailed account of all aspects of the duties involved.

Appendix

There may be sub-sets of the generic job described above which require additional technical skills. This appendix to the generic job description can be developed to cover such situations.

Division	Design & Engineering (News Labs)
Reports to (title)	Head of News Labs
Location base	London

Organisation structure	<p>This is a chance for you to shape some of the most important projects in News as part of one of the most innovative teams in the BBC.</p> <p>News Labs is a small team experimenting with new approaches to news and prototyping new tools – from exploring the potential of Virtual Realty and Voice platforms to social media bots or tools helping journalists make cutting edge videos in multiple languages.</p> <p>We are looking for an imaginative, flexible and talented Principal Software Engineer to help lead News Labs’ work discovering the ways in which we can power new and interesting workflows for editors and journalists.</p> <p>Please visit our blog to see some of the projects we have been working on: http://bbcnewslabs.co.uk/projects/</p>
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Additional job specific responsibilities and accountabilities
<p>KEY RESPONSIBILITIES</p> <ul style="list-style-type: none"> • Work closely with editorial stakeholders and other developers from across the BBC to lead pilots and prototypes that create great impact on BBC journalism our audience and the wider News industry. • Dream up, initiate, specify, design & build beautiful tools for our journalists and new audience experiences. • Help to run and take part in industry hackathons, and collaborate both across the BBC and also with universities and other media organisations. • Help shape our ways of working across a wide portfolio of different projects. <p>THE IDEAL CANDIDATE</p> <p>ESSENTIAL ATTRIBUTES:</p> <ul style="list-style-type: none"> • An enthusiasm for News with a willingness to experiment and try new solutions to problems faced by editorial and technical teams. • Experience of leading software engineering teams and projects • Flexibility to deal with changing projects and priorities in a short space of time. • Excellent and proven knowledge of software architecture principles. • Excellent and proven development skills and experience building applications Java & Node.js • Strong experience of test driven development: unit and integration • Experience of Agile Programming, pairing and working within a collaborative team • Understanding of Service Oriented Architectures and consuming RESTful web services via HTTP. • Experience of deploying and supporting applications deployed to AWS • Experience of database and document store technologies

JOB DESCRIPTION



A PLUS WOULD BE:

- Experience with front end development.
- Experience of social platform apis and integration
- Experience of Unix OS
- Healthy interest in emerging platform technologies

Approval

Manager	Name and job title
HR Business Partner	Name
Date	