JOB DESCRIPTION

BBC

Job title	Principal Software Engineer		
Job family	Technology, Systems & Delivery	**Band**	**D**

Job purpose

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

Key responsibilities and accountabilities

- Lead the design and development of effective software that meets strategic business needs for immediate team and broader BBC.
- Ensure alignment of the team's products and services with BBC technology and architecture strategy.
- Provide knowledge and best practice to the broader BBC in areas of specialist knowledge.
- 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 who 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 team's delivery and development processes.
- Participate in the team's 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 third party providers 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

- Experience designing and writing 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.
- 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 engaging with industry forums, interest groups or blogging and other broader industry forums.

Job impact

Decision making
- Makes decisions about the design and development of software systems to meet business and product needs. The design has significant impact on capital and ongoing operational expenditure

Scope

Finance: Direct budget (for third 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

Now is a great time to join the BBC News & Weather digital teams. Over the last four years, we have doubled the reach of the News site and apps in both the UK and globally. On an average week, 60% of visitors to BBC online come to News & Weather in the UK, rising to 75% internationally; when big stories hit, we regularly now exceed 100m weekly users. While we're a big product, we're still one-size-fits-all, and over the next two years we must make the leap to a modern, personalised digital service that works for all. We're doubling the size of the product and engineering teams by hiring over 100 new roles to support our aspiration of creating a truly universal personal news service.

We will deliver a mix of universal top stories and curated content tailored to different audience needs, with users experiencing a rich combination of news, live and in-depth journalism in text, photos, graphics, video and audio. We know trust is key, and our teams will focus on experiences with trust and transparency at their heart. We will continue to set the standard in Live coverage online, and build a modern BBC News experience that is important, relevant and useful for everyone, every time they use it.

The BBC offers an inclusive workplace where the principles of fairness, respect, equality, dignity and autonomy are promoted and are part of our everyday goals and behaviour. We select candidates for our positions on the basis of merit and as an equal opportunity employer we value diversity and all of the benefits it brings.

Who will support me?

The BBC is widely known as an organisation that values its staff, a healthy work-life balance and a positive, growth-oriented workplace. BBC News has an excellent reputation as a great place to grow, learn and develop new skills.

We have fantastic people managers that are committed to helping their colleagues advance their careers. As a wider organisation we work to provide you with the opportunities and experiences you need to succeed.

You can spend 10% time of your time learning new skills, playing with new technology and developing yourself, because we understand the need to stay up to date and fresh in a constantly changing technical landscape.

How will I be successful?

- Be a part of improving our great culture by demonstrating the right behaviours and attitudes.
- Be proactive and take opportunities to increase your knowledge and experience.
- Be a great team player and help us achieve great things together.

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What is the role?

Software Engineers are responsible for designing and engineering all of the systems, products and services that power the BBC. The Principal Software Engineer helps their team meet standards for engineering excellence and quality of output.

They are responsible for providing technical leadership and input to specific business and technology domain challenges. They help their team follow best practice with regard to the design, implementation and operation of effective software and tools, with the aim of helping us to meet our audience needs and improve ourselves.

As a senior technical voice in their team and wider department building some of the BBC's biggest audience facing propositions, this role will be a voice in many internal forums shaping the future direction of BBC Online. Every day will be about working with and supporting their teams to do their best work, with other teams around them, in the best way so we do our best for our audience.

What are the responsibilities?

Technical:

- Guide the design and development of effective software that meets strategic business needs for your immediate team and broader BBC.
- Provide knowledge and best practice to the broader BBC in areas of specialist knowledge.
- Provide technical knowledge, insight and leadership to peers and colleagues.
- Be an expert on the BBC's operating environments and play a part in shaping them.
- Seeking out new technologies, tools and methodologies to evolve our development approaches and processes.

People:

- Work with other senior technical people in the broader organisation to define, document and distribute best practice and standards.
- Participate in the team's software development methodologies such as pairing, code and documentation reviewing, and continuous delivery.
- Assisting with recruiting, mentoring and training new team members.

Delivery:

- Guide and encourage continuous improvement of your teams' delivery and development processes.
- Ensure alignment of the team's products and services with BBC technology and architecture strategy.
- Support the communication of product and technical strategy to stakeholders at all levels.
- Lead troubleshooting and resolution of issues throughout the product life cycle.
- Work with project, product and technical leads to define, shape and deliver software.
- Work with third party providers where necessary providing direction, support and documentation.

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Are you the right candidate?

As an organisation we support all of our colleagues in gaining new skills and experience. To be successful in this role you may have experience of some, but not necessarily all, of the following:

- Technical expertise in at least one or multiple of: Mobile development (iOS/Android); Web development; backend services/APIs
- Strong experience of hands-on technical leadership within a team and stakeholder management with both technical and business stakeholders
- Experience of driving technical improvements within in team or engineering community and best practice across multiple technologies.
- Strong communication, able to explain problems and potential solutions in a way that enables a range of colleagues to understand and engage with the pros and cons of proposed technical choices.
- Proven experience of working collaboratively with people from a range of backgrounds and experience.
- A track record of iterating and driving increased team in terms of technical solution quality, velocity and user success.
- Experience working in areas with technical debt and operational complexity.

Tech stack

We use a wide variety of tools and technologies across our teams, and no one is expected to work with or have experience of, all of them. To give you an idea though:

- For our user facing "front end" products we use web technologies, primarily JavaScript, Typescript, React, and NodeJS.
- For our APIs and "back end" services we primarily use Java, Scala, and NodeJS, as well as persistence layers like Redis, Mongo, and PostGres

We create and support reliable and scalable cloud based microservices on Amazon Web Services, use Git and GitHub for version control, and use testing tools and approaches, such as Test Driven Development.