

<b>Job title</b>	<b>Software Engineer</b>		
<b>Job family</b>	<b>Technology, Systems &amp; Delivery</b>	<b>Grade</b>	<b>7</b>

<b>Job purpose</b>
Responsible for implementing effective software and tools for given designs.

<b>Key responsibilities and accountabilities</b>
<ul style="list-style-type: none"> <li>• Develop effective software that meets given specifications</li> <li>• Review and give feedback on others' code</li> <li>• Write appropriate tests using automated test driven techniques for ensure code quality</li> <li>• Integrate the software with monitoring and support tools</li> <li>• Support system integration in its operating environment</li> <li>• Write and review technical documentation</li> <li>• Help to troubleshoot and resolve issues throughout the product life cycle, including out of hours support for incident resolution</li> <li>• Participate in the team's agile planning and delivery process</li> <li>• Effectively participate in the teams software development methodologies, such as pairing, code and documentation reviewing and continuous delivery</li> <li>• Learn new technologies and keep abreast of existing technologies</li> </ul>

<b>Knowledge, skills, training and experience</b>
<p><b>Essential</b></p> <ul style="list-style-type: none"> <li>• Demonstrable experience writing and maintaining robust production software</li> <li>• Competence in one or more mainstream development languages and frameworks</li> <li>• Competence with one or more mainstream development and deployment tool chains (IDE, SCCS, CI)</li> <li>• Knowledge of the web architecture and key technologies (HTTP, DNS, distributed design)</li> <li>• Competence in test driven development and broader testing &amp; QA concerns</li> <li>• Competence in developing for operational concerns (monitoring integration, performance testing, security considerations)</li> <li>• Experience of project working and professional software development processes, including agile</li> <li>• Effective collaboration within a team – ability to speak up, challenge, agree and commit</li> </ul> <p><b>Desirable</b></p> <ul style="list-style-type: none"> <li>• Experience of database design and use in software applications</li> <li>• Takes responsibility for driving tasks to completion</li> <li>• Understanding of designing &amp; implementing for non-functional concerns</li> <li>• Worked in a professional software development environment on several projects (including experience in testing, design and release)</li> <li>• Experience of releasing their software to a production use case</li> <li>• Participated in reviews and inspections of code (sat with a peer or someone more senior)</li> </ul>

- reviewing your code)
- Software Engineering or Computer Science Degree or equivalent

**Job impact**

**Decision Making**

- Reports to Principal Software Engineer or Software Engineering Manager
- Tasks are allocated to the job holder by the team lead
- Undertakes tasks independently
- Independently writes tests to check quality of code
- Assesses feedback from reviews and incorporates as appropriate
- Troubleshoots independently or with the support of others where necessary
- Contributes to the teams iterative and collaborative design and implementation decisions

**Scope**

Finance: No financial responsibility

Line Management: No line management responsibility

Ad-hoc Teams: Participates in departmental hack days and external ad-hoc events (typically 5 to 20 members)

**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.

<b>Division</b>	<b>BBC Design &amp; Engineering (R&amp;D)</b>
<b>Reports to (title)</b>	<b>Lead Engineer</b>
<b>Location base</b>	<b>Centre House, W12</b>

<b>Organisation structure</b>
<p>BBC Research &amp; Development are looking for a creative technologist or web developer to work on a variety of innovative projects. You will be building prototypes that improves on the way the BBC currently delivers TV, radio and online services, addressing under-served audiences and exploring new technologies. You will work as part of a multidisciplinary team of developers, UX designers and producers.</p> <p>This is an exciting opportunity to work on something that will ultimately have an impact on the way the BBC works, the tools our editorial and journalist colleagues use, and the online products and services we offer to our audience.</p> <p>This is a 1-year full-time fixed-term contract or attachment at grade 7, based in central London but we can offer some flexibility in working arrangements.</p> <p>BBC R&amp;D has a worldwide reputation for leading the research and development of many key internet, broadcast and media technologies. This role is in the Internet Research &amp; Future Services (IRFS) team of BBC R&amp;D whose work focuses on media, the internet and user experiences. We build systems and prototypes, carry out original research and solve problems for the BBC. We work in small, multidisciplinary teams of developers, designers and producers.</p> <p>You can read more about <a href="#">BBC R&amp;D on our website</a>, and more about this team's work in the <a href="#">IRFS Weeknotes series on the R&amp;D blog</a>.</p>

<b>Additional job specific responsibilities and accountabilities</b>
<p>We are looking for someone who can quickly build working prototypes to test out ideas and hypotheses. You will be able to write excellent JavaScript, HTML and CSS to build online products and services for BBC audiences and you will be comfortable with modern software development practices and tools.</p> <p>You should care about the people who will use what you build - ensuring things are easy to use, solve real problems and meet people's needs.</p> <p>You should be curious about exploring the many possibilities of our research areas, be creative and full of ideas, and have the ability to express your ideas clearly to people.</p> <p>You should want to work in a multidisciplinary team alongside UX designers, content producers, writers, filmmakers and journalists, solving problems using a mixture of technology and design.</p> <p><b>Essential Skills &amp; Experience</b></p> <ul style="list-style-type: none"> <li>• Skill and competence in the craft of creating software, with excellent JavaScript 5/ES 6 programming skills, experience of developing modular applications and the use of client</li> </ul>

<p>side frameworks (e.g. React.js)</p> <ul style="list-style-type: none"> <li>• One or more server-side scripting languages or environments, e.g. Node.js, Ruby, Python, including setup, installation and maintenance</li> <li>• Excellent HTML5/CSS2/3 skills including CSS frameworks</li> <li>• Proficiency in modern software development, using git/GitHub and issue tracking as a core part of the team process</li> <li>• Strong understanding of responsive design and cross-browser compatibility issues</li> <li>• Experience of developing prototypes quickly, knowing what to prioritise when</li> <li>• Ability to work effectively as a part of a multidisciplinary team, particularly with UX design colleagues, using appropriate processes and tools</li> <li>• Ability to learn new technologies and apply them where appropriate</li> </ul> <p><b><i>Desirable skills and experience</i></b></p> <ul style="list-style-type: none"> <li>• HTML5 web audio and video</li> <li>• Developing mobile-friendly websites</li> <li>• Ability to do simple interaction and visual design for digital products</li> <li>• Understanding of web accessibility issues and appropriate methods for testing</li> <li>• AWS, Docker, Kubernetes</li> <li>• Contributing to open source or community projects</li> <li>• Machine learning, data science, Tensorflow, NumPy</li> </ul>
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<b>Approval</b>	
<b>Manager</b>	Name and job title
<b>HR Business Partner</b>	Name
<b>Date</b>	