



Database Engineer

Dear Applicant

Thank you for taking an interest in the position of Data Engineer at Cirencester College. This is a role integral to the success of our IT services team. Our physical campus is growing, as are our staff and student numbers, and this requires a greater focus on, and investment in, the development of our IT infrastructure ensuring that it is secure, resilient and fit for purpose. As a result, this role makes an important contribution to our business continuity and growth. The aim of this letter is to supplement the job description and give you the chance to judge whether this job and College are right for you.

We are a popular, top performing Sixth Form College. The vast majority of our 3000+ students are doing level 3 programmes, either Vocational or A-levels. The College was one of the first colleges in the country to be selected to deliver the new innovative T-level qualifications, going forward positioning us as an A-level and T-level College. We also offer apprenticeships and we run a range adult qualifications and leisure courses. We have an active community using our facilities in the evenings, weekends and holidays as well as the Sundial Theatre. Our students (and staff) come from across Gloucestershire, South Gloucestershire, North Wiltshire, Swindon and West Oxfordshire.

The College is situated beside the beautiful grounds of Cirencester Park, just up the hill from the town. The grounds of the Estate stretch for miles, with many staff using these to unwind, whether this be for a spot of lunch, a lunchtime stroll or a post-work run.

Your role would be to support and drive changes to our data strategy and architecture to improve and meet the needs of our growing staff and student body. This presents a unique opportunity for an ambitious database engineer to join our team and help shape our data strategy and architecture for the future. While the scope of the position is broad, encompassing both hands-on database engineering and longer-term strategic responsibilities, we recognise that few candidates will have extensive experience across every area. Rather than seeking someone who already has all the answers, we are looking for an individual with solid technical capabilities, a willingness to learn, and the potential to grow into a role with significant influence across the organisation.

This is an opportunity to develop your expertise, work on meaningful challenges, and progressively take ownership of our database and data architecture landscape as your experience grows.

The job-specification provides a list of the skills and experience we are looking for, but above all we need someone with the energy, attention to detail and imagination to help us achieve our college goals and who gets that ultimately it is all about providing secure services to our students, parents and staff.

Unlike schools, the College has its own pay scales and terms and conditions. We currently have approximately 450 staff including support staff, lecturers and managers. The post itself is on support staff terms and conditions.

In summary, as a college, we are passionate about helping students become the best they can be in whatever they choose to pursue. This role plays a key part in enabling us to do this. If you think this matches your interests and aspirations, we look forward to receiving your application, which you should address to Human Resources.

I hope that this has given you a feel for the role and, if you are interested, I look forward to hearing from you.

A handwritten signature in black ink, appearing to read 'Karen Fraser', with a stylized flourish at the end.

Karen Fraser
Vice Principal Student Experience and External Relations

Job Description: Data Engineer**Reporting to:** Head of IT**The key purposes of this role are to:**

- Act as the design authority for database and data platform architecture in collaboration with our 3rd party database architecture consultants
- Lead the evaluation, definition and delivery of a strategic data architecture roadmap
- Provide database management and support
- Provide technical leadership and support to developers
- Continuous learning and technological updates

	This post is responsible for:
Act as the design authority for database and data platform architecture in collaboration with our 3 rd party database architecture consultants	Defining the structure of the college Relational Database Management System (RDBMS) and its databases. This will be achieved by closely working with our 3 rd party database design and architecture consultants.
	Design and implementation of robust ETL/ELT pipelines to ingest and transform data across all core systems. Automate data ingestion, transformation, and validation processes to reduce manual intervention.
	Designing a robust database infrastructure across the college's digital ecosystem and enhance the scalability and performance of existing databases and data warehouse to deliver integrated data solutions.
	Consolidating or building data flows between databases and systems, enhancing the effectiveness of database tools, APIs and services. Implement best practices for data governance and lifecycle management and ensure compliance with GDPR and data protection policies.
	Managing and maintaining accurate documentation of changes and processes to ensure stability, data consistency and integrity across systems. Maintaining clear documentation of data flows, schemas, and structures.
Lead the evaluation, definition and delivery of a strategic data architecture roadmap	Working with leadership and system developers to evolve and align data strategy with longer-term College priorities. Defining the College's target data architecture, integration patterns, and platform standards.
	Defining standards and best practices for data integration, storage, modelling. Evaluate, hybrid (on-prem and cloud) data architectures, ensuring scalability, resilience, and cost-effectiveness to meet the College's strategic requirements.
	Working with consultants and stakeholders, develop a phased migration plan from legacy/on-premise systems to modern data platforms where appropriate.
Provide database management and support	Monitor and optimise database performance by conducting diagnostic tests, implementing data validation and cleansing, evaluate performance metrics and implement tuning and indexing strategies.
	Liaising with the IT infrastructure and 3 rd party MSPs on all infrastructure/hardware issues and maintaining controlled design using change management processes.
	Ensure that data is securely backed up and develop appropriate data security and restoration controls.
	Support troubleshooting of data issues across systems and databases and provide timely resolutions.
Provide technical leadership and support to developers	Working closely with database owners and developers to meet data storage and retrieval requirements.

	Developing and maintaining efficient database queries and views as well as programming stored procedures and triggers. Provide technical guidance on data-related initiatives.
	Building and maintaining integrations using APIs, web services, and middleware between systems. Automate data synchronisation across platforms.
Continuous learning and technological updates	Keeping up to date with technological developments, proposing changes for approval.
	Maintaining primary relationships with internal and external parties to ensure alignment with industry standards and best practices.

This role may require some flexible working, including occasional evenings and weekends.

All staff are expected to work within college policies and procedures, with particular regard for Health & Safety, Equality & Diversity and customer service ethos.

Incremental progression is subject to satisfactory performance.

Annual targets for each element in this job description may be agreed annually with your Line Manager.

Overall factors that will be crucial in determining success are:

Indicators/ sources for reaching performance judgements (not exhaustive):
Compliance with college policies and relevant legislation Database performance and integrity metrics Roadmap milestones Operational imperatives achieved (eg. backup & restore tests, data accessibility etc)

Personal Profile

The role holder will closely match the following criteria:

	Essential	Desirable
Knowledge and Qualifications	At least Level 2 English and maths, At least Level 3 IT qualification	Higher IT qualification
	Microsoft SQL Server certification (or at least 1 years relevant experience)	CompTIA A+ CompTIA Linux+
	Familiarity with navigating around both Linux and Windows based Operating Systems.	
Experience	Strong experience with SQL databases (SQL Server, MySQL, or similar), demonstrable knowledge of writing efficient and optimised database queries and stored procedures	Experience evaluating or implementing cloud data platforms (e.g. Azure, AWS)

	Building data pipelines and ETL/ELT processes	Proficiency in Python, PowerShell, or equivalent scripting
	Integration experience using APIs and multiple enterprise systems	
	Solid understanding of data governance, security, and GDPR	
Personal Skills / Qualities	Strategic thinker with the ability to balance long-term vision and practical delivery	
	Detail-oriented with a strong focus on data quality and ability to problem solve.	
	Ability to liaise effectively with users at all levels of the organisation, providing advice, guidance and support to a non-technical audience.	
	Confident, self-motivated and able to work individually or part of a larger team. Proactive and able to manage multiple priorities	
	Strong analytical and problem-solving skills.	
	Self-starter and can-do attitude, setting challenging individual goals, working without the need of detailed direction while under the general direction of the support analysts and managers.	
	Reliable and trustworthy, capable of working independently or as part of a cross-college / functional team.	
	Suitable to work in a college environment in the presence of children, young people and vulnerable adults and to act accordingly.	

This job description sets out the main duties of the post at the date when it was drawn up. Such duties may vary from time to time without changing the general character of the post or the level of responsibility entailed. Such variations are a common occurrence and do not justify a reconsideration of the grading of the post.