

JOB DESCRIPTION

Job Title:	Data Engineer
Ref no:	DLS28
Campus:	Hendon
School/Service:	Digital and Library Services (DLS)
Grade:	Grade 7
Starting Salary:	£43,811 per annum rising to £50,136 incrementally each year inclusive of Outer London Weighting
Hours:	35.5 hours per week, actual daily hours by arrangement
Period:	Permanent
Reporting to:	Head of Data Engineering
Reporting to Job Holder:	None

Overall Purpose:

To carry out analysis, development, implementation, support and maintenance for the University's data warehouse, systems integration and databases. Develop innovative solutions to meet the evolving needs of the university, external service providers and regulatory bodies and helping foster a data-driven culture.

Postholders will be expected to operate within a matrix management structure to provide the flexibility to meet varying project demands and a fast pace of change.

Principal Duties:

General

1. Carry out analysis, development, implementation, support and maintenance tasks in support of University's data, system integration and databases to agreed timescales and to quality standards.
2. Provide technical support for operational systems, by providing second / third level incident and problem resolution support as required.
3. Liaise, as required, on hardware, software and services issues with external suppliers.
4. Create system, data, integration and project documentation, business and technical reports as required.
5. Carry out systems testing and documentation in support of regular application, database and Operating System (OS) patching and upgrades.
6. Maintain a good awareness of the key issues facing the University and changes in systems and technology to effectively analyse business problems and prepare technical specifications and impact analyses.
7. Assist in the evaluation, selection and implementation of software and hardware systems.
8. Collaborate with users and liaise effectively at all levels.

9. Provide appropriate technical presentations to users as required.
10. Support end users in testing
11. Take an active part in University committees and task groups, where appropriate.
12. To work under the project management of the allocated project leader(s), who may not always be the line manager, on a project by project basis.

Data and Integration

1. Make data easily accessible to different systems and users.
2. Analyse, design, develop and maintain integration solutions to connect various data sources, applications and systems, working closely with the Application Development Team.
3. Assist in the development of effective Extraction, Transformation, and Loading (ETL) processes to ensure data is of good quality, accurate and consistent.
4. Develop data integration processes that comply with security protocols and data protection regulations
5. Prepare data architecture diagrams and data dictionaries
6. Continuously improve data integration techniques to keep up with evolving business needs and technologies.

Data Base Administrator services

1. Assist in the management, support and maintenance of application and database software as required, to ensure availability of operational systems.
2. Maintain application security including user and role management, single sign-on and authentication.
3. Monitor the performance of the databases and applications
4. Maintain a good understanding of backup and recovery policies and procedures.

Specific Technical Duties

1. Develop and maintain a reasonable working knowledge in relevant areas. At present this includes:
 - Azure based integration tools and technologies
 - Extensible Markup Language (XML), Javascript Object Notation (JSON), Cascading Style Sheets (CSS), Representational State Transfer (RESTful) and Simple Object Access Protocol (SOAP) web services
 - Ellucian Ethos Integration / Banner Event Publisher
 - Tableau
 - Oracle, Tomcat, Weblogic, Structured Query Language (SQL) Plus, Procedural Language Structured Query Language (PL/SQL)
 - Java, Java Server Pages (JSP) and Servlets, Java Database Connectivity (JDBC), Eclipse, Hibernate, Spring, Groovy/Grails
 - Java Script (JS) and shell scripting, Python, Hyper Text Markup Language (HTML), React, NodeJS

- SQL Server and .NET Framework.
2. Develop and maintain a working knowledge of the technical requirements of at least one of the following business applications, in order to provide sound analysis, advice, and management of systems management development and maintenance:
 - Ellucian Banner Student system
 - Oracle eBusiness Suite (Financials or Oracle Human Resources (HR) and Payroll)
 - Virtual Learning Environment (VLE) - Moodle
 - Portal systems / Mobile app – eg: Clarivate CampusM platform
 - Customer Relationship Management (CRM)
 - Business Intelligence tools
 - Curriculum Management
 3. Support Digital Library Services (DLS) colleagues in the preparation and testing of business continuity plans by developing and maintaining backup procedures and Disaster Recovery documentation for the data, integration and database environments.
 4. Work closely with colleagues within DLS on issues related to capacity planning, security and vulnerability management in order to ensure that operational procedures and change control occurs in an orderly manner.
 5. Stay up-to-date with the latest technology trends to continuously improve skills and apply best practices.
 6. Whilst reporting to a formal line manager, to work under the project management of the allocated Project Manager on a project by project basis, liaising and co-operating to provide effective team operation.

General

7. As duties and responsibilities change, the job description will be reviewed and amended in consultation with the post-holder.
8. The post-holder will actively follow Middlesex University policies including Equality & Diversity policies.
9. The post-holder will carry out any other duties as are within the scope, spirit and purpose of the job as requested by the line manager.
10. The postholder should actively follow Middlesex University policies and procedures and maintain an awareness and observation of Fire and Health & Safety Regulations

PERSON SPECIFICATION

Job Title: Data Engineer

Your supporting statement on your application form will be assessed to see how you meet each of the following selection criteria.

SELECTION CRITERIA:

A. General

Essential:

1. Educated to degree/Higher National Diploma (HND) or hold an equivalent qualification or equivalent analysis and development experience.
2. Proven experience of data, integration or systems management, design and development in a business environment.
3. Ability to analyse and recommend practical solutions to business and technical problems.
4. Ability to relate to all Digital Library Services (DLS) staff and end users at all levels
5. Good verbal and written presentation skills.
6. Ability to work with several complex tasks simultaneously.
7. Ability to self manage and motivate oneself
8. The willingness to embrace change and to acquire additional technical skills as may be required to implement and support the University's digital environment.
9. Willingness to work outside normal hours.

Equality Diversity and Inclusion

Essential:

10. Demonstrable commitment to fairness and the principles of equality and inclusion.

B. Specific Technical Roles

Essential:

11. Demonstrate the ability to apply technical skills to resolve business problems.
12. Formal training and proven experience in at least two of the following:
 - Azure based integration tools and technologies (or similar)
 - Data integration tools eg: Ellucian Ethos Integration / Banner Event Publisher
 - Representational State Transfer (RESTful) and Simple Object Access Protocol (SOAP) web services development
 - Extract, Transform & Load (ETL) processes
 - Data warehousing concepts, transactional and dimensional modelling, design and build
 - Database management systems e.g.: Oracle, Structured Query Language (SQL) Server, MySQL

- Source code management and automation tools
13. Proven experience of developing and supporting administrative systems ideally in a higher education academic institution. The ideal candidate would also have proven experience of assisting in the technical implementation or support of at least one of the following:
- Ellucian Banner Student system
 - Oracle eBusiness Suite (Financials or Oracle HR and Payroll)
 - Virtual Learning Environment (VLE) - Moodle
 - Portal systems / Mobile app – eg: Clarivate CampusM platform
 - Customer Relationship Management (CRM)
 - Business Intelligence tools
 - Curriculum Management
14. A reasonable knowledge of Linux. A strong knowledge of a similar operating system would be acceptable given the willingness to retrain.
15. An understanding of data communications issues, including a knowledge of communications and security protocols.

Desirable:

16. Good working knowledge of Prince 2, Prince2/Agile or Agile working practices.
17. Good working knowledge of Information Technology Infrastructure Library (ITIL) standards and practices
18. Good working knowledge of source code repositories (preferably GIT)

Terms and Conditions

Diversity

We value diversity and strive to create a fairer, more equitable work environment for our staff and students. We offer a range of family friendly, inclusive employment policies, flexible working arrangements, staff diversity networks, campus facilities and services to support staff from different backgrounds.

Flexibility

Please note that given the need for flexibility in order to meet the changing requirements of the University, the duties and location of this post and the role of the post-holder may be changed after consultation. The balance of duties may vary over time and will be reviewed as part of the appraisal process.

MU Services Limited

Middlesex University has established a wholly owned subsidiary, MU Services Limited, to provide professional services to the University. Staff of MU Services Limited will work alongside Middlesex University staff. All University professional services staff job descriptions, policies and procedures and the University Professional Services Staff Handbook will apply to both Middlesex University staff and MU Services Limited staff during their employment, unless where expressly stated otherwise. Staff will remain with their current employer, unless they move to an academic or academic related role.

Annual Leave

30 days per annum plus eight Bank Holidays and seven University Days taken at Christmas (pro rata for part-time staff) which may need to be taken as time off in lieu.

Travel to Hendon Campus

We offer an interest-free season ticket loan, interest-free motorbike loan, a cycle to work scheme and bicycle and motorbike parking and changing facilities.

Public Transport

Our Hendon Campus is well served by public transport with buses, London Underground and British Rail services all within a short walk of the campus. You can get detailed journey information from TfL (www.tfl.gov.uk) and have a look at our directions and location map to help plan your travel: <http://www.mdx.ac.uk/aboutus/Location/hendon/directions/index.aspx>

Parking

There are currently Regular Parking Permits and Pre-Paid Parking options available to new joiners. Further details are available on the Travel and Transport page on the staff intranet. Please note if the number of applications becomes oversubscribed these parking options could be withdrawn at any point.

Parking for Disabled Staff

Staff and visitors with their own current blue badge have access to free parking on campus. All blue badge holders should present a copy of their blue badge to the security office in the Quad. Holders will be given car park access up to the date of expiry of their blue badge.

What Happens Next?

If you wish to apply for this post please return to the portal and click on Apply Online.

If you wish to discuss the job in further detail please contact: Ryan Caulfield, Head of Data Engineering, R.Caulfield@mdx.ac.uk