

Class No.:	
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CLASS SPECIFICATION

DATABASE ADMINISTRATOR

NATURE AND SCOPE OF WORK

Reporting to the Manager, Business Systems, Digital Technology Services (DTS), the database administrator (DBA) is responsible for the design, implementation, maintenance, and security of the university's databases and related services, ensuring optimal performance, reliability, and data integrity. The incumbent in this position is primarily responsible for analysis, design and administration of database solutions supporting the university community.

ILLUSTRATIVE EXAMPLES OF DUTIES

- Develop, implement, review and update of all policies and procedures for databases including network and web database access, usage for the backup and recovery of data.
- Write scripts related to stored procedures.
- Perform routine database maintenance tasks, including log monitoring, backups, restores, and database optimization to ensure optimal performance and reliability.
- Proactively identify opportunities for optimization, tuning, and capacity planning for databases.
- Monitor database performance and troubleshoot issues to minimize downtime and ensure smooth operation.
- Identify potential risks and vulnerabilities in web systems and collaborate with the DTS cybersecurity team to implement security measures ensuring that databases are well protected against unauthorized access, malware, and other security threats. This includes user authentication, access controls, encryption, and auditing.
- Perform database upgrades, patches, and migrations.

- Provide technical support to users and DTS staff for database and related systems issues, ensuring timely resolution and minimal disruption to operations.
- Create and maintain database administration related application documentation, including database schemas, configuration settings, and troubleshooting procedures.
- Evaluate data requirements to design, develop, implement, and maintain databases, including the evaluation but not limited to the application software, business processes and data maps/models/flows in accordance with SDLC methodologies.
- Use change and release management practices and procedures based on ITIL framework.
- Collaborate with cross-functional teams, including DTS colleagues, academic departments, and administrative units, to support university initiatives and projects.
- Provide database usage reports and configure analytics tools. Analyze reports and provide recommendations to DTS leadership team.
- Collaborate with other DTS team members and vendors to support database administration and maintenance of database services, ensuring that university community needs are well represented.
- Use DTS project lifecycle, processes, and tools to organize and deliver the digital solutions.
- Perform other duties related to the qualifications and requirements of the position.

REQUIRED KNOWLEDGE, ABILITIES AND SKILLS

- Experience in database administration of Oracle, MySQL and Microsoft SQL Server databases.
- Experience and knowledge of administration of Oracle, MySQL and Microsoft SQL application servers.
- Experience of SQL DDL, DML and DQL syntax and techniques in either or both Oracle, MySQL, or Microsoft SQL Server environment.
- Extensive knowledge of Unix/Linux and Microsoft Windows operating systems.
- Knowledge and experience of programming languages and shell scripting.
- Knowledge and experience in web servers and application servers' administration.
- Knowledge of database design principles, data modeling, data analytics and normalization techniques.
- Experience with database performance tuning, optimization, and troubleshooting.
- Experience with database security practices, including user authentication, access controls, and encryption.
- Knowledge of gathering and documenting end user requirements.

- Experience in identifying issues, analyzing complex problems, evaluating alternative solutions, and developing practical creative solutions.
- Experience in developing use cases, test plans and test scripts.
- Experience in conducting system testing and documenting test results for evaluation.
- Experience in developing and delivering end user training using different training modalities.
- Experience in developing high quality, clear, concise documentation required for implementation and support of business systems.
- Ability to exercise tact, diplomacy, discretion, and sensitivity when dealing with university community members.
- Understanding of facilitating conversations between staff and administration with technical DTS and vendor team members.
- Experience and knowledge in collaborating and working in cross-functional teams, including staff, administrator, faculty, students, project manager, DTS members, vendors, and other teams required to deliver a digital solution to the community.
- Understands business context to exercise initiative and judgement regarding action required.
- Able to prioritize work requests, maintain attention to detail, and apply organization skills to meet deadlines.
- Understands and follows complex verbal and written instructions, and communicates information effectively, both verbally and in writing, using different modalities.
- Adapts to changing situations, anticipates needs, and can reprioritize tasks efficiently.

REQUIRED TRAINING AND EXPERIENCE

- 5 years of relevant and progressive professional experience, including 2 years in a public institution.
- Experience with gathering data requirements, data analysis, SDLC, project management and change management methodologies.
- Experience with the ITIL framework and ITSM best practices, tools, and techniques; ITIL certification is an asset.
- Experience in developing high quality documentation required to support digital solutions.
- A bachelor's degree in an IT related discipline.
- Certification as either Oracle OCP or Microsoft MCDBA, MCSD, or MCSE.
- Experience in effectively communicating information to different levels within an organization.