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<b>INTERNAL / EXTERNAL ADVERTISEMENT</b> <b>DIVISION: INFORMATION AND COMMUNICATION TECHNOLOGY</b> <b>16 April 2025</b>		
<b>REFERENCE NUMBER</b>	<b>POSITION: PERMANENT</b>	<b>NUMBER OF VACANCIES AVAILABLE</b>
<b>ICT: 12/2025</b>	<b>DATABASE ADMINISTRATOR</b>  <b>ALL INCLUSIVE REMUNERATION: TCTC (PER ANNUM)</b>  <b>R 545 911 00 – R 761 627.00</b>	<b>1</b>

MICT SETA is a fast-paced innovation-driven organisation with an aim to recruit Game Changers in the ICT industry who are driven to be part of the team. MICT SETA seeks to employ a suitably qualified and competent **Database Administrator** who will be responsible for the design and development of database strategies, monitoring and improvement of database performance and capacity, ensuring integrity and security best practises are applied on all databases, planning for future expansion requirements and benchmarking. Further, the incumbent will plan, coordinate, and implement security measures to safeguard databases and organisation information.

The successful incumbent will be based at Head Office, in Midrand and will report to the **Manager: Business Applications**.

#### MINIMUM REQUIREMENTS

- Bachelor's degree (NQF Level 7) in Computer Science, Information Technology or related.
- Minimum of 3 years' experience working as a Database Administrator.
- Experience with one or more relational database management system (e.g., Microsoft SQL Server, Oracle, MySQL, PostgreSQL).
- Practical / demonstratable knowledge understanding of the following will serve as an added advantage:
  - Cloud-based database services such as Microsoft Azure.
  - Linux and Unix operating systems.
  - Knowledge of ETL processes

- Relevant certifications in database administration and management will be advantageous.
- Flexibility in working extended hours will be required to meet demands of the role
- Valid driver's License

## ROLES AND RESPONSIBILITIES

### Business Continuity Management and Strategy

- Manage database backups and restoration processes to safeguard data integrity.
- Set up, manage, and monitor database replication (Disaster Recovery Synchronisation), maintenance tasks, and backup routines.
- Maintain comprehensive documentation of logical and physical database configurations and settings.
- Implement and manage database server recovery models.
- Lead efforts to develop and improve database procedures and operational efficiency.
- Support, maintain, and monitor existing ETL processes to ensure data flow and system reliability.
- Collaborate with end-users to define data requirements and address business needs.
- Develop and manage database backup and recovery strategies, including full, differential, and transaction log backups.
- Regularly test backup and recovery procedures to ensure data integrity and availability.
- Ensure databases are recoverable in case of failure or disaster by managing disaster recovery plans.
- Document all backup and recovery procedures and maintain an up-to-date recovery playbook.
- Plan and execute database migration and upgrade projects.

### Database Maintenance and Monitoring

- Conduct database capacity planning to ensure optimal performance and resource utilisation.
- Prepare and install database servers, ensuring systems readiness and configuration.
- Conduct root cause analysis to resolve production issues and data-related problems.
- Monitor database performance and capacity, ensuring optimal use of resources.
- Perform regular maintenance tasks, including index rebuilding, database defragmentation, and log management.
- Utilise monitoring tools to proactively detect and resolve database issues.
- Manage database storage allocation and manage data growth effectively.

- Document database configurations, procedures, and troubleshooting steps.

### **Governance Risk and Quality Management**

- Ensure data consistency, quality, and validation across the database systems.
- Develop and enforce policies and standards for data governance.
- Conduct regular audits and assessments to ensure compliance with data governance policies.
- Prepare and present reports for submission to the MICT SETA Management/Executives and Board and its committees and other stakeholders.
- Identify and mitigate risk in area of responsibility.
- Monitor the management of both operational and strategic risks.
- Compile mitigation plans for identified risk within own area of responsibility.
- Advise Management, Executives, Committees of Board and/or Board on potential legal risks and possible measures to mitigate the identified risks.
- Ensure compliance with internal policies and relevant legislative framework.
- Develop internal policies and procedures and ensure implementation thereof.

### **Technical Support and Client Relations**

- Install, configure, and upgrade database management systems (DBMS) such as Microsoft SQL Server, Oracle, MySQL, or PostgreSQL.
- Set up database servers, configure user access controls, and implement database security protocols.
- Develop and maintain documentation related to database configuration, installation, and upgrade procedures.
- Coordinate with application developers to ensure databases are designed to meet business requirements.
- Ensure database structures meet industry standards and organisational policies.
- Optimise database systems for performance and efficiency.
- Analyse and optimise SQL queries to improve performance.
- Monitor and tune database performance, query optimisation, and troubleshooting.
- Administration of databases including performance monitoring and tuning.
- Perform daily database administration tasks, including monitoring, troubleshooting, and maintenance.
- Provide support for database-related issues and ensure timely resolution.
- Conduct training for staff on database systems and best practices.
- To conduct root cause analysis and resolve production problems and data issues.
- To lead efforts to develop and improve procedures for database performance

monitoring and proactive intervention using appropriate tools. Review service-related reports (database backups, maintenance, monitoring) on daily

- basis to ensure service-related issues are identified and resolved within established SLA.
- Track and resolve database related incidents and request.
- Promptly attentively respond to customer requests within established parameters and time frames.
- Assess or check with customers to ensure solutions meet requirements.

### **Systems Administration**

- Install, manage, and maintain operating systems that host the database servers.
- Ensure proper functioning of database hardware and software, including updates, patches, and security measures.
- Troubleshoot and resolve database and system issues, ensuring smooth operation.
- Manage user access permissions to databases.
- Conduct security audits to identify and address potential vulnerabilities.
- Communicate technical information to both technical and non-technical stakeholders.
- Familiarity with high availability and disaster recovery solutions i.e.: log shipping, mirroring etc.
- Proficiency in writing queries, stored procedures, triggers and functions.

### **Database Development and Support**

- Provide support to developers in database design, query optimisation, and data modelling.
- Collaborate with the development team to create and maintain stored procedures, triggers, functions, and views.
- Assist in the development and deployment of new database applications and features.
- Review and provide recommendations on database changes to ensure minimal impact on production.
- Analyse and resolve database performance issues, including slow query optimisation, index management, and memory management.
- Conduct regular performance tuning to optimise database performance.
- Work closely with developers to improve SQL code and database design to enhance performance.
- Perform load testing and capacity planning to ensure scalability.

## **Data Security and Compliance**

- Control access for databases through security password and permission.
- Manage security settings and developer interaction
- Manage Encryption of Data.
- Assist in maintaining a policy repository accessible to all stakeholders.
- Establish and maintain a policy version control system to monitor changes and keep track of the policy review process.
- Ensure MICT SETA's compliance matrix is established and is adhered into.
- Support the development of the MICT SETAs strategic and annual performance plans.
- Compile monthly compliance reports for the various stakeholders.
- Assist in identifying and adhering to fraud controls, risk prevention principles, sound governance and compliance processes, and tools to identify and manage risks.
- Maintain quality risk management standards in line with relevant requirements.
- Maintain all related Service Level Agreements to minimise business risk and ensure business continuity.
- Review related Standard Operating Procedures in consultation with the Manager to ensure business optimisation.
- Implement and maintain database security protocols, including access controls, encryption, and data masking.
- Ensure compliance with data protection regulations such as POPIA (Protection of Personal Information Act).
- Perform regular security audits, vulnerability assessments, and apply patches or updates as necessary.
- Monitor and respond to security alerts, unauthorised access, and potential breaches.
- Working knowledge of database security best practices and the ability to implement and enforce security measures.

## **Reporting**

- Generate and maintain accurate reports on database health, usage, and performance metrics.
- Document all database-related processes, configurations, and procedures for future reference.
- Provide regular reports to management on database performance, issues, and improvements.
- Maintain an updated inventory of all database assets and their configurations.

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## VALUES:

- Customer Centricity
- Ethical
- Innovative
- Committed

- Meritocracy
- Collaboration

#### **FUNCTIONAL:**

- Database administration
- Attention to detail
- Communication
- Adaptability
- Data Analysis
- Database troubleshooting
- Database security
- Backup and recovery

#### **BEHAVIOURAL:**

- Problem analysis and problem solving
- Ethical
- Attention to detail and accuracy
- Adaptability
- Confidentiality
- Initiative
- Stress tolerance
- Interpersonal Relations
- Ability to work independently.
- Committed
- Team Player

#### **SYSTEMS SKILLS:**

- Microsoft Azure
- Database design and architecture
- SQL
- Business continuity
- Performance tuning and optimization
- Database Security Management
- Automation and scripting

**Application:**

Please click the link to apply <https://forms.office.com/r/MT6DrRqsVb> by no later than **21 April 2025**

Queries may be directed to 010-055-7950.

Should candidates not hear from us 30 days after the closing date of applications, they should consider their application unsuccessful. Please note this is an open position.



**White, Indian, Coloured and people with disabilities are highly encouraged to apply for this position in-line with the MICT SETA Employment Equity Targets.**

**POPIA DISCLAIMER** – By applying for MICT SETA's vacancy, you hereby expressly give MICT SETA consent to process your personal information in accordance with the relevant provisions of the Protection of Personal Information Act 4 of 2013 ("POPIA").

Further, the MICT SETA shall retain personal information as per the regulations set out by the National Archives and Records Service of South African Act (NARSSA), Act. 43 of 1996, as amended.

Please refer to the MICT SETA POPIA Disclaimer for further information (<https://www.mict.org.za/popia-disclaimer/>)