

## Who we are:

Transportation is so basic that many of us overlook its overwhelming importance in our daily lives. Practically everything used in our homes, offices, or schools across Tennessee – from furniture to food items to clothing – requires a large and complex transportation network. The Tennessee Department of Transportation provides citizens of Tennessee and travelers with one of the best transportation systems in the country. TDOT is a multimodal agency with responsibilities in building and maintaining roads, aviation, public transit, waterways, railroads, cycling and walking. Our involvement ranges from airport improvements to funding transit buses to planning for river ports. The Department of Transportation has approximately 3,500 employees with four statewide region facilities in Knoxville, Chattanooga, Nashville, and Jackson.



### **Database Administrator - Advanced**

Information Technology Division – Enterprise Support Services Section  
Nashville, TN  
\$80,000 - \$90,000 annually

#### **Job Overview**

The Database Administrator Advanced role designs, administers, secures, and optimizes enterprise database systems for the State of Tennessee. This role supports high availability, integrity, performance, scalability, and compliance across production, development, testing, and disaster-recovery environments. It involves database architecture and design; administration of relational database platforms; and the use of SQL, PL/SQL, T-SQL, and other scripting to support critical enterprise applications.

The position handles database tuning, optimization, capacity planning, and data modeling, along with data integration, ETL processes, reporting, and warehousing. It manages database upgrades, migrations, patching, conversions, and deployments while maintaining strong backup, recovery, replication, high-availability, and failover processes. Responsibilities also include working across operating systems, networking, storage, cloud environments, monitoring tools, and ensuring alignment with state technology policies, cybersecurity standards, and applicable regulations.

This role involves analyzing and resolving complex database and infrastructure issues, developing and testing disaster-recovery solutions, and implementing changes with minimal service interruption. It includes creating clear technical documentation, communicating effectively with both technical and non-technical stakeholders, and providing technical guidance to database teams, developers, and infrastructure staff. The Advanced Database Administrator manages multiple priorities, works independently or collaboratively, and consistently meets deadlines in a dynamic enterprise environment.

#### **Essential Job Responsibilities**

Design, install, configure, administer, and maintain enterprise database systems to support statewide applications and services.

Develop and maintain logical and physical data models for online transaction processing systems and other enterprise solutions.

Monitor database availability, performance, capacity, scalability, system logs, and alerts, ensuring stable and efficient operations.

Perform SQL, PL/SQL, T-SQL, infrastructure, indexing, and configuration tuning to optimize database performance.

Develop advanced database procedures, functions, packages, scripts, monitoring utilities, and automation processes.

Implement backup, recovery, replication, high-availability, and disaster-recovery solutions, including hot backups and point-in-time recovery.

Participate in disaster-recovery testing and lead recovery operations when needed.

Plan and execute database upgrades, patches, migrations, conversions, consolidations, and deployments across environments.

Develop and review DML and DDL change scripts to support application enhancements and system updates.

Design and implement Extract, Transform, and Load (ETL) processes for data migration and integration.

Support reporting, data warehousing, analytics, and enterprise data initiatives.

Manage database security, including roles, permissions, access controls, encryption, auditing, firewall configurations, and data-protection requirements.

Troubleshoot complex database, application, performance, connectivity, storage, operating-system, and infrastructure issues.

Collaborate with developers, business analysts, cybersecurity teams, infrastructure personnel, vendors, and agency stakeholders.

Develop and maintain database standards, procedures, technical documentation, recovery plans, and operational runbooks.

Perform capacity planning and recommend improvements to database architecture, storage, networking, cloud platforms, and enterprise applications.

Participate in modernization, cloud migration, automation, standardization, and continuous-improvement initiatives.

Provide technical guidance, mentoring, and knowledge transfer to database administrators and IT staff.

Manage multiple assignments and priorities while meeting deadlines and service-level expectations.

Perform other related duties as assigned.

### **Qualifications**

Education and Experience: Bachelor's degree from an accredited institution and two years of professional experience in database management, design, administration, or programming.

### **OR**

Graduate work in database modeling, administration, or performance tuning may substitute for up to two years of required experience. Relevant professional experience may substitute for education on a year-for-year basis, up to four years.

### **Ideal Candidate**

The Database Admin-Adv is a strong problem-solver who can troubleshoot complex technical issues across databases, applications, infrastructure, and integrations. They communicate clearly with both technical and non-technical stakeholders and collaborate effectively with developers, analysts, infrastructure teams, cybersecurity personnel, vendors, and agency partners. They are organized, detail-oriented, and able to manage multiple assignments while meeting deadlines and service-level expectations. They contribute to modernization, automation, cloud initiatives, and process improvements, and they support the growth of others by sharing knowledge, mentoring staff, and providing technical guidance. They operate with professionalism, initiative, and a commitment to reliable, secure, and high-performing database services that support and reflect TDOT's mission and values.