



Office of Human Resources  
IT Database Administrator Senior - CI2817  
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### General Statement of Duties

Performs advanced level professional information technology work installing, configuring, and upgrading database server software; monitoring, optimization, and tuning of databases and dependent platforms/infrastructure; administers, audits, and sets security standards; designs and performs backup, recovery, database refreshes, data replication and archiving; analyzes and resolves complex database and platform/infrastructure issues; develops conceptual, logical, physical, and data warehouse data models; designs, implements, and administers data migrations, extractions, transformations, and loading processes; develops, implements, and maintains operational policies and procedures for database administration. This position may also function as a technical lead.

### Distinguishing Characteristics

The IT Database Administrator Senior is distinguished from the IT Database Administrator Staff, which performs entry level professional information technology work performing basic installation, configuration, upgrade and migration of database server software and related products; monitoring database performance and security; performs backup, recovery, database refreshes, data replication and archiving; assists in the analysis and resolution of routine database issues; develops physical data models of existing databases; and learns data migrations, extractions, transformations, and loading processes.

The IT Database Administrator Senior is also distinguished from the IT Database Administrator Associate, which performs standard level professional information technology work installing, configuring, and upgrading database server software; monitoring, optimization, and tuning of databases; administers and audits security; performs backup, recovery, database refreshes, data replication and archiving; analyzes and resolves routine to complex database issues; develops conceptual, logical, and physical data models; designs, implements, and administers data migrations, extractions, transformations, and loading processes; assists with developing, implementing, and maintaining operational policies and procedures for database administration. The IT Database Administrator Associate position may also lead small to medium sized database projects

The IT Database Administrator Senior is also distinguished from the IT Systems Architect which performs full performance information technology work in the planning, designing, developing, and monitoring of information systems (specializing in Windows, UNIX, Security, Telecommunications, Data Network, and/or Storage Area Network systems) utilized within an agency or throughout the city.

Finally, the IT Database Administrator Senior is distinguished from the IT Systems Administrator Senior, which performs full performance professional information technology work planning and coordinating the installation and configuration of operating system hardware and software and user application software; maintaining and repairing complex problems with system hardware and software; and modifying operating system hardware and software to increase performance and meet technical design requirements.

### Essential Duties

Installs, configures, upgrades and migrates database server software and related products.

Monitors and optimizes the performance of the database including SQL tuning; performs storage and capacity planning.

Designs and implements solutions that utilize high availability technologies in one or multiple geographical locations.

Performs troubleshooting, resolution, and root cause analysis for complex database performance and outages; ensures compliance with database vendor license agreement; contacts database vendor for technical support.

Creates and administers objects (e.g. tables, views, indexes, and stored procedures) using change control procedures.

Develops, implements, and maintains policies, procedures, and standards for security, consistency, manageability, and integrity of databases.

Develops conceptual, logical, and physical data models for databases and data warehouses in coordination with application teams.

Plans and implements operating procedures for database backup and recovery; implements, administers, and maintains data replication; executes and monitors procedures for archiving operational data in compliance with data retention requirements.

Creates technical documentation for environments with advanced complexity.

Develops policies, procedures, and standards, and best practices used to govern and direct the technical aspects of database administration in order to ensure security, consistency, manageability, and integrity of databases.

Designs and develops data migrations, extract transform, and load functions.

By position, performs lead work over subordinate employees or project management duties.

Performs other related duties as assigned.

Employees may be re-deployed to work in other capacities in their own agencies or in other City agencies to support core functions of the City during a City-wide emergency declared by the Mayor.

Any one position may not include all of the duties listed. However, the allocation of positions will be determined by the amount of time spent in performing the essential duties listed above.

## Competencies

Attention to Detail – Is thorough when performing work and conscientious about attending to detail.

Reading – Understands and interprets written material, including technical material, rules, regulations, instructions, reports, charts, graphs, or tables; applies what is learned from written material to specific situations.

Technical Competence – Uses knowledge that is acquired through formal training or extensive on-the-job experience to perform one's job; works with, understands, and evaluates technical information related to the job; advises others on technical issues.

Technical Problem Solving - Troubleshoots, diagnoses, analyzes, and identifies system malfunctions to determine the source and cause of the problem.

Writing - Writes in a clear, concise, organized, and convincing manner for the intended audience.

**Knowledge & Skills**

Skill in the methods, commands, and tools for the installation, creation, configuring, upgrading, development, automation, migration, performance monitoring, optimization, storage administration, database refreshes, user administration, and security of enterprise class database systems. Has skill in troubleshooting and resolving database configuration and performance problems, and complex database issues.

Skill in the development and administration of schema objects such as tables, views, constraints, triggers, indexes, and in the identification and tuning of complex SQL commands.

Skill in the methods, commands, and tools for backup and recovery, disaster recovery, and high availability of database systems.

Skill in the design, development, and maintenance of stored procedures, and triggers.

Skill in the tools and commands to perform platform administration and troubleshooting in relation to database support.

Skill in developing conceptual, logical, and physical, data models using related tools and a knowledge of data warehousing concepts.

Skill in performing data analysis and data integrity checks, data import and exports, and data migration and transformations.

Skill in the development and implementation of maintenance policies, procedures, standards, and best practices to insure security, consistency, manageability, and integrity of databases.

**Level of Supervision Exercised**

By position, performs lead work.

**Education Requirement**

Bachelor's Degree in Computer Science, Information Systems, Business Administration, Mathematics or a related field.

**Experience Requirement**

Four (4) years of professional information technology experience in the installation, configuration, design, development, management, optimization, monitoring, backup and recovery, and organization of databases; development of conceptual, logical, and physical data models; design, implementation, and administration of data migrations, extractions, transformations, and loading processes; developing policies, procedures, standards, and best practices.

**Education & Experience Equivalency**

One (1) year of the appropriate type and level of experience may be substituted for each required year of post-high school education.

Additional appropriate education may be substituted for the minimum experience requirements.

**Licensure & Certification**

By position, requires a valid Driver's License at the time of application.

By position, must obtain Criminal Justice Information Services (CJIS) clearance within the probationary period.

Licenses and certifications must be kept current as a condition of employment.

### Working Environment

Potential exposure to cold weather conditions (indoor/outdoor).  
Potential exposure to dust.  
Potential exposure to hazards from electrical/mechanical/power equipment.  
Potential exposure to pesticides or fertilizers.  
Potential exposure to risk of blood-borne diseases.  
Potential exposure to temperature changes: variations in temperature from hot to cold.  
Potential exposure to unpleasant elements (accidents, injuries, and illnesses).  
Handles absentee replacement on short notice.  
Noise: sufficient noise to cause distraction.  
Occasional pressure due to multiple calls and inquiries.  
Personal Safety: aware of surroundings, people, and events.  
Pressure due to multiple calls and inquiries.  
Subject to electrical and radiant energy hazards.  
Subject to injury from moving parts or equipment.  
Subject to long, irregular hours.  
Subject to many interruptions.  
Subject to pressure for multiple calls, inquiries, and interruptions.  
Works in confined, uncomfortable or awkward locations.

### Level of Physical Demand

1-Sedentary (0-10 lbs.)

### Physical Demands

(Physical Demands are a general guide and specific positions will vary based on working conditions, locations, and agency/department needs.):

Accommodation: Ability to bring objects into focus.  
Agility: Ability to move quickly and easily.  
Balancing: Maintaining equilibrium.  
Carrying: Transporting or moving an object.  
Color vision: Ability to distinguish and identify different colors.  
Fingering: Picking and pinching, through use of fingers or otherwise.  
Handling: Seizing, holding, grasping, through use of hands, fingers, or other means.  
Hearing: Perceiving and comprehending the nature and direction of sounds.  
Lifting: Moving objects weighing no more than 10 pounds from one level to another.  
Reaching: Extending the hands and arms or other device in any direction.  
Sitting: Remaining in a stationary position.  
Standing: Remaining in a stationary position.  
Stooping: Positioning oneself low to the ground.  
Talking: Communicating ideas or exchanging information.  
Vision Far Acuity: Ability to perceive or detect objects clearly at 20 feet or more.  
Vision Near Acuity: Ability to perceive or detect objects at 20 inches or less.  
Vision: Ability to perceive animal behavior, comprehend signs, and detect color.  
Walking: Ability to move or traverse from one location to another.  
Written Comprehension: Ability to discern the meaning of written words.

**Background Check Requirement**

Criminal Check

Education Check

Employment Verification

By position, Motor Vehicle Record

By position, must obtain Criminal Justice Information Services (CJIS) clearance within the probationary period.

**Assessment Requirement**

None

**Probation Period**

Six (6) months.

**Class Detail**

**Pay Grade: EX-13**

**FLSA Code: Y**

**Established Date: 9/21/2018**

**Established By: LS**

**Revised Date: 7/30/2023**

**Revised By: AM**

**Class History: 7/30/2023 – Revised licensure & certification and background checks.**