



Office of Human Resources
IT Database Administrator Senior – LI3345
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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.

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

Working Environment

For DPL Positions Specifically:

Potential exposure to hazardous anesthetic agents, body fluids, and bio-wastes.
Atmospheric Conditions: conditions that affect the skin, eyes or respiratory system.
Potential exposure to cold temperature, cold enough to cause bodily discomfort.
Potential exposure to cold weather conditions (indoor/outdoor).
Potential exposure to conditions that affect the skin or respiratory system.
Potential exposure to dust.
Potential exposure to extreme temperature changes.
Potential exposure to hazardous conditions where there is a danger to life, body, and/or health.
Potential exposure to hazardous/toxic chemicals.
Potential exposure to hazards from electro/mechanical/power equipment.
Potential exposure to hazards of steam and heat.
Potential exposure to heat temperatures, hot enough to cause bodily discomfort.
Potential exposure to hot and humid work environment.
Potential exposure to housekeeping/cleaning agents/chemicals.
Potential exposure to infection from disease-bearing specimens.
Potential exposure to infections and contagious diseases.
Potential exposure to odorous chemicals.
Potential exposure to pesticides or fertilizers.
Potential exposure to the risk of blood borne diseases.
Potential exposure to temperature changes: variations in temperature from hot too cold.
Potential exposure to temperature changes: variations in temperature from hot to cold.
Potential exposure to unpleasant elements (accidents, injuries, and illness).
Extreme cold conditions.
Handles emergency or crisis situations.
Noise sufficient to cause distraction or possible hearing loss.
Personal Safety: aware of surroundings, people, and events.
Pressure due to multiple calls and inquiries.
Subject to long, irregular hours.
Subject to many interruptions.
Subject to burns and cuts.
Subject to electrical and radiant energy hazards.
Subject to hazards of flammable or explosive gases.
Subject to injury from moving parts of equipment or vehicles.
Subject to precarious or high locations.
Subject to pressure for multiple calls, inquiries, and interruptions.
Subject to varying and unpredictable situations.
Subject to traffic, roadways, and pedestrians.
Subject to vibrations and strain on the body to cause bodily harm if endured daily.
Temperature Changes: variations in temperature from hot too cold.
Temperature Changes: variations in temperatures from hot too cold when works in field.
Wet: frequent contact with water or other liquid.
Wet: frequent contact with water, liquid, chemicals, or sanitary sewage.
Works in precarious or high locations

Level of Physical Demand

For DPL Positions Specifically:

3-Medium (20-50 lbs.) to 4- Heavy Work (50-100 lbs.)

Physical Demands

For DPL Positions Specifically:

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

Agility: Ability to move quickly and easily.

Balancing: Maintaining equilibrium.

Carrying: Transporting or moving an object.

Climbing: Ascending or descending an object or ladder.

Color vision: Ability to distinguish and identify different colors.

Crawling: Moving about in a low or crouched position.

Crouching: Positioning body downward and forward.

Depth Perception: Ability to judge distances and space relationships.

Eye/Hand/Foot Coordination: Performing work through using two or more body parts or other devices.

Feeling: Perceiving attributes of objects by means of skin receptors, communication, or otherwise.

Field of Vision: Ability to sharply detect or perceive objects peripherally.

Fine Dexterity: Sufficient coordination to operate a vehicle and manipulate objects.

Fingering: Picking and pinching, through use of fingers or otherwise.

Handling: Seizing, holding, grasping, through use of hands, fingers, or other means.

Hazards: Conditions where there is danger to life, body and/or health.

Hearing/Talking: Perceiving and comprehending the nature and direction of sounds/ability to communicate ideas.

Hearing: Perceiving and comprehending the nature and direction of sounds.

Kneeling: Assuming a lowered position.

Lifting: By Position, may move objects 20-50 pounds, or 50-100 pounds from one level to another.

Neck Flexion: Perceiving objects located above or below.

Physical Strength: Exerts force to transport objects of 50 pounds or more.

Pulling: Exerting force upon an object so that it is moving to the person.

Pushing: Exerting force upon an object so that it moves away from the person.

Reaching: Extending the hands and arms or other device in any direction.

Repetitive motions: Making frequent or continuous movements.

Sitting: Remaining in a stationary position.

Stamina: Ability to work over long periods of time without tiring.

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.

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

Assessment Requirement

None

Probation Period

None

Class Detail

Pay Grade: EX-13

FLSA Code: Y

Established Date: 9/19/2019

Established By: JH

Revised Date:

Revised By:

Class History: