General Statement of Duties

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. This position may also lead small to medium sized database projects.

Distinguishing Characteristics

The IT Database Administrator Associate 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 Associate is also distinguished from the IT Database Administrator Senior which 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. The IT Database Administrator Senior may also function as a technical lead.

Finally, the IT Database Administrator Associate is distinguished from the IT Systems Administrator Associate, which performs standard level professional information technology work installing and configuring operating system hardware and software and user application software; maintains and repairs routine to complex problems with system hardware and software.

Level of Supervision Exercised

None

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 geographical location.

Performs troubleshooting, resolution, and root cause analysis for routine to 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, triggers, and stored procedures) using change control procedures,

Implements, maintains, and monitors database security in accordance with standards while following policies and procedures for security, consistency, manageability, and integrity of databases.

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

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

Assists in the development of policies, procedures, standards, and best practices used by database administration.

Develops, implements, and maintains data migrations, extract transform, and load functions.

Creates technical documentation for environments with intermediate complexity.

By position, leads small to medium sized database administration projects.

Performs other related duties as assigned or requested.

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

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<th>Attention to Detail – Is thorough when performing work and conscientious about attending to detail.</th>
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<tr>
<td>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.</td>
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<td>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.</td>
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<td>Technical Problem Solving - Troubleshoots, diagnoses, analyzes, and identifies system malfunctions to determine the source and cause of the problem.</td>
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<td>Writing - Writes in a clear, concise, organized, and convincing manner for the intended audience.</td>
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### Knowledge & Skills

| Knowledge of developing and administration of schema objects such as tables, views, constraints, triggers, and indexes. Skill in identifying slow running SQL commands and perform basic tuning. |
| Knowledge of policies, procedures, standards, and best practices to insure security, consistency, manageability, and integrity of databases. |
| Knowledge of the tools, procedure, principals in the development of stored procedures, and triggers. |
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.

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

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

Skill in developing conceptual, logical and physical data models using related tools.

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

**Education Requirement**

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

**Experience Requirement**

Two (2) 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 administers of data migrations, extractions, transformations, and loading processes.

**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**

Handles absentee replacement on short notice.
Occasional pressure due to multiple calls and inquiries.
Pressure due to multiple calls and inquiries.
Subject to long, irregular hours.
Subject to many interruptions.
Subject to pressure for multiple calls, inquiries, and interruptions.

**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.):

Sitting: remaining in the normal seated position.
Reaching: extending the hand(s) and arm(s) in any direction.

City and County of Denver
Handling: seizing, holding, grasping, or otherwise working with hands.
Fingering: picking, pinching, or otherwise working with fingers.
Talking: expressing or exchanging ideas by means of spoken words.
Hearing: perceiving the nature of sounds by the ear.
Color vision: ability to distinguish and identify different colors.
Agility: bends, stretches, twists, or reaches out with the body, arms, or legs.
Balancing: maintaining body equilibrium to prevent falling over.
Carrying: transporting an object; usually by hand, arm, or shoulder.
Accommodation: ability to adjust vision to bring object into focus.
Standing: remaining one one’s feet in an upright position.
Stooping: Bending the body by bending the spine at the waist.
Vision Far acuity: ability to see clearly at 20 feet or more.
Vision Near acuity: ability to see clearly at 20 inches or less.
Vision: To observe animal behavior, read signs, and reading colors.
Walking: moving about on foot on uneven surfaces.
Walking: moving about on foot.
Written Comprehension
Lifting: raising or lowering objects weighing no more than 10 pounds, from one level to another.

**Background Check Requirement**

- Criminal Check
- Education Check
- Employment Verification
- By position, Motor Vehicle Record

**Assessment Requirement**

None

**Probation Period**

Six (6) months.

**Class Detail**

- Pay Grade: I-813
- FLSA Code: Y
- Established Date: 9/21/2018
- Established By: LS
- Revised Date:
- Revised By:
- Class History: