IT Data/Database Analyst Senior

**Purpose of Class:** Performs data or database administration work which includes physical database design, creation, management, and support/logical database modeling and administration.

**Distinguishing Characteristics**

- **Level:** Second in a series of three
- **Work Direction Received:** Works under general/limited supervision
- **Direction of Others:** Guides/Oversees; may lead in providing work direction
- **Scope/nature of Discretion:** General discretion; performs duties with moderate opportunity to exercise independence within broadly-defined policies and procedures

**Examples of Duties**

- **Database Software Support**
  - Installs and maintains database software and associated utility products
  - Troubleshoots database software and associated utility products
  - Configures database software and associated utility products

- **Manage Physical Database**
  - Allocates and manages physical space for database tables
  - Allocates and manages physical space for individual application tables
  - Ensures database tables are backed up

- **Data Dictionary**
  - Maintains data field definitions

- **Logical Database**
  - Creates/maintains data models in conjunction with applications development staff
  - Ensures compliance with data dictionary
  - Performs database/application “binds”

- **Security**
  - Performs database security duties
  - Creates/maintains database access authorization

- **Leadership**
  - Mentors IT data/database analysts
  - May lead logical database design sessions
  - Maintains regular and reliable attendance.
Minimum Qualifications

Bachelor’s degree in a related area such as computer science, computer engineering, or management information systems, and two years of experience related to the essential functions of the position. Any equivalent education and/or work experience may be substituted in order to meet the minimum qualifications of the position— which must be as a data/database analyst.

Lesser degrees may be considered with increasing years of experience as follows:

<table>
<thead>
<tr>
<th>Degree</th>
<th>Years of Work Experience, Two of Which Must be as a Data/Database Analyst (DBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s degree in an unrelated area</td>
<td>4 years overall, 2 as DBA</td>
</tr>
<tr>
<td>Associate’s degree in a related area</td>
<td>6 years overall, 2 as DBA</td>
</tr>
<tr>
<td>Associate’s degree in an unrelated area</td>
<td>8 years overall, 2 as DBA</td>
</tr>
<tr>
<td>High school diploma or equivalent</td>
<td>10 years overall, 2 as DBA</td>
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</tbody>
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Knowledge and Abilities

Applicants will be screened through oral, written, performance, and/or other evaluations for the following:

Knowledge
- Basic math
- Commonly used query languages, such as SQL
- Database management concepts, principles and methods including database logical and physical design, normalization, storage, capacity management, and backup and recovery
- Characteristics of data storage media
- IT database security principles/methods
- Technical documentation procedures
- Computer hardware and software, including applications and programming
- Database backup and recovery systems
- Operating systems and platforms used in organization
- Sources, characteristics and uses of the organization’s data assets
- Data administration and data standardization policies, standards and methods
- IT database security principles/methods
- Agency’s IT infrastructure
- Interrelationships among multiple IT specialties
- Principles and processes involved in business and organizational planning, coordination and execution

Abilities
- Read, listen, and understand written/oral communication from others
- Communicate, both orally and in writing, information/ideas to others
- Reason deductively: apply general rules to specific problems to come up with logical answers, deciding if an answer makes sense
Abilities (continued)

- Correctly follow a given rule or set of rules in order to arrange things or actions in a certain order
- Reason inductively: combine separate pieces of information or specific answers to problems to form general rules or conclusions
- Logically explain why a series of seemingly unrelated events occur together
- Create reports and manipulate data in response to customer requirements
- Monitor database performance and tune database operations
- Use modeling tools and approaches to meet unique requirements of the assignment
- Use math to solve problems
- Write various computer programs
- Analyze needs and product requirements to create a design (i.e., operations analysis)
- Design technology (i.e., generating/adapting equipment/technology to serve user needs)
- Synthesize/reorganize information to better approach problems/tasks
- Design, develop, and maintain database operations
- Generate complex queries and reports
- Define and allocate storage capacity in design of data management systems
- Develop data dictionary definitions, data models, metadata repositories and other data management tools
- Apply/adapt new and improved approaches to the design, development, and implementation of data mining, warehousing, and related storage and retrieval systems
- Execute a variety of database utility functions
- Assist customers in navigating and accessing databases using various interface methods
- Implement operating systems procedures for running timed or scheduled events such as file backups
- Produce database design schema for integrating source data into data management systems
- Observe/evaluate outcomes of problem solutions to identify lessons learned
- Effectively manage time
- Write technical documentation/develop user instructions
- Modify systems and database configurations to correct problems affecting the confidentiality, integrity, and availability of data