

Nebraska Department of Education  
Classification Specification  
Established: 3/02 Revised: 6/0714

Job Code: EDB112/EDR112/EDO112  
Paygrade: 47

## 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.

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## Minimum Qualifications

Bachelor's degree in a related area-field 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:

<u>Degree</u>	<u>Years of Work Experience, Two of Which Must be as a Data/Database Analyst (DBA)</u>
<u>Bachelor's degree in an unrelated area</u>	<u>4 years overall, 2 as DBA</u>
<u>Associate's degree in a related area</u>	<u>6 years overall, 2 as DBA</u>
<u>Associate's degree in an unrelated area</u>	<u>8 years overall, 2 as DBA</u>
<u>High school diploma or equivalent</u>	<u>10 years overall, 2 as DBA</u>

## 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