

**DATABASE ADMINISTRATOR 1****Nature of Work**

Under general supervision, at the full-performance level, performs a full range of database management functions as an applications database administrator. Creates physical database from logical design of application system specifications. Calculates and allocates system storage structures (tablespaces). Creates primary objects (tables, views, indexes) after an application has been designed. Modifies the database structure, as necessary and monitors and optimizes database performance. Enrolls users and maintains application system security. Backs up and restores the database. May assist Database Administrator 2 in managing database management system software, controlling and monitoring user access, migrating program changes to production. Performs as a resource person to applications developers. May supervise and assist in training programmers and other staff. An irregular work schedule may be required of this position. Performs related work as required.

**Distinguishing Characteristics**

Database Administrator 1 works primarily as an applications database administrator, with specific database management system authority. Analyzes application specifications and prepares the physical database structures, creates and executes Data Definition Language (DDL) to build all primary objects for the application. Makes recommendations to application developers in design and implementation. May delegate specific tasks to application programmers to assist in training and development database administrator skills.

**Examples of Work**

- Receives requests from application programmers; analyzes the impact on the database environment, analyzes entity relationship diagrams, makes recommendations for the applications usage of the database.
- Develops logical database design from the entity relationship diagrams and designs the physical database from the local design.
- Creates primary storage structures (tablespaces) after estimating storage requirements for the tables and indexes needed.
- Creates primary objects (tables, views, indexes) with appropriate parameters for the application.
- Creates synonyms for views and tables.

**DATABASE ADMINISTRATOR 1 (CONT'D)****Examples of Work (cont'd)**

Creates users accounts and maintains system security.  
Controls and monitors user access to the database.  
Installs and configures database management system software.  
Develops and implements the database management system security strategy.  
Creates and monitors an appropriate development and test environment.  
Modifies database objects, as necessary, from user requests.  
Analyzes database and application code for potential or existing performance problems.  
Implements and maintains a backup and recovery plan.  
May supervise programmers and support staff.

**Knowledge, Skills, and Abilities**

Knowledge of database management, database structure and internal security concepts.  
Knowledge of information processing concepts.  
Knowledge of project control techniques.  
Knowledge of SQL, DDL and DML (Data Definition Language and Data Manipulation Language).  
Skill in preparing documents used in guidelines, documentation and communicating with various personnel.  
Ability to load and reorganize database data.  
Ability to evaluate and analyze application specifications and develop specifications for database implementation and maintenance to meet user requirements.  
Ability to present ideas in a clear, concise format using narrative statements and logic diagrams.  
Ability to maintain effective working relationships with information processing personnel and users.  
Ability to understand complex technical manuals.

**Minimum Qualifications**

**Training:** Successful completion of an Associate Degree in computer science or related field from an accredited college, university or business school.

**Substitution:** Two years of experience as a Database Administrator for Universal DB2, ORACLE, INFORMIX, SQL Server, SYBASE or any other multi-user database management system on mainframe, mini, or client/server platforms may substitute for the required training.

8302

DATABASE ADMINISTRATOR 1 (CONT'D)

**Minimum Qualifications (cont'd)**

**Experience:** Two years of full-time or equivalent part-time paid experience in database administration and management work, with Universal DB2, ORACLE, INFORMIX, SQL Server, SYBASE or any other multi-user database management on mainframe, mini, or client/server platforms OR four years of full-time or equivalent part-time paid experience in programming and analysis work using any of a variety of programming languages, including two years of SQL experience and a variety of data storage techniques.

**Substitution:** Bachelor's degree from an accredited college or university in computer science or related field may be substituted for the required training and the two years of experience.

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