



Code: 06D9

Family: IT-Technical Administration

Service: Administrative

Group: Clerical, Accounting, and General Office

Series: Information Technology

CLASS TITLE: DATABASE ADMINISTRATOR

CHARACTERISTICS OF THE CLASS

Under direction, designs, installs, maintains, and upgrades the City of Chicago's databases (development, testing, and production) by providing technical expertise in the use of database technology and is accountable for the overall performance of the database environment, and performs related duties as required

This class is assigned to the Technical Administration Information Technology Job Family which consists of positions that design, build, configure, test, deploy, upgrade, maintain and improve technology products, platforms, and solutions.

ESSENTIAL DUTIES

- Works closely with business users, analysts, and solution developers to define and resolve information flow and content issues—helping to transform business requirements into environment-specific databases
- Designs, configures, and manages databases to ensure the integrity, security, and accessibility of the organization's data
- Defines standards for physical data storage, maintenance, access, and security administration
- Approves and modifies the designs and architectures by reviewing end-user topology, security, performance, and interoperability requirements
- Analyzes, designs, and develops a roadmap and implementation plan based upon a current vs. future state in a cohesive architecture viewpoint
- Identifies the tools and components used within the infrastructure based on the enterprise toolset and defines exceptions as warranted
- Meets with project management and IT Leaders to ensure progress toward architectural alignment with project goals and requirements
- Analyzes the current technology environment to detect critical deficiencies and recommend solutions for improvement
- Coordinates architecture implementation and modification activities
- Assists in post-implementation continuous-improvement efforts to enhance performance and provide increased functionality
- Identifies organizational requirements for the resources, structures, and cultural changes necessary to support initiatives
- Monitors and analyzes performance metrics and then allocates database resources to achieve optimum database performance
- Implements and performs backup and recovery procedures for AIS IT's databases and helps develop the tools and techniques that allow end users to access data in a secure environment
- Configures database parameters and defines data repository requirements, data dictionaries, and warehousing requirements
- Designs and implements approaches to improve database performance, capacity, and scalability

NOTE: *The list of essential duties is not intended to be inclusive; there may be other duties that are essential to particular positions within the class.*

MINIMUM QUALIFICATIONS

Education, Training, and Experience

- Graduation from an accredited college or university with a Bachelor's degree in Computer Science, Information Technology/Systems, or a directly related field, plus two (2) years of work experience in database administration, design and/or support, or an equivalent combination of education, training and experience.

Licensure, Certification, or Other Qualifications

- None

WORKING CONDITIONS

- General office environment

EQUIPMENT

- Standard office equipment (e.g., phone, printer, copier, computers, mobile devices)
- Standard productivity suites (e.g., Microsoft Office Suite, OpenOffice, Google Workspace)

PHYSICAL REQUIREMENTS

- No specific requirements

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS

Knowledge

Moderate knowledge of:

- *relational database structures, theories, principles and practices
- *computer systems management
- *distributed and centralized computer systems
- *database normalization concepts
- *IT systems development practices, standards, and procedures
- *computer operating systems
- *architecture design review processes
- *architecture principles and concepts
- *data modeling
- *performance tuning to design high-volume
- *data mining
- *data warehousing
- *data security
- *database design
- *database implementation
- *data access and user administration
- *storage, capacity, and performance methods
- *tuning and optimization techniques
- *change management

- *incident management
- *IT disaster recovery

Knowledge of applicable City and department policies, procedures, rules, and regulations

Skills

- ACTIVE LEARNING - Understand the implications of new information for both current and future problem-solving and decision-making
- ACTIVE LISTENING - Give full attention to what other people are saying, take time to understand the points being made, ask questions as appropriate, and not interrupt at inappropriate times
- CRITICAL THINKING - Use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems
- COMPLEX PROBLEM SOLVING - Identify complex problems and review related information to develop and evaluate options and implement solutions
- TIME MANAGEMENT - Manage one's own time or the time of others
- COORDINATION WITH OTHERS - Adjust actions in relation to others' actions
- JUDGEMENT AND DECISION MAKING - Consider the relative costs and benefits of potential actions to choose the most appropriate one
- SYSTEMS ANALYSIS - Determine how a system should work and how changes in conditions, operations, and the environment will affect outcomes

Abilities

- COMPREHEND ORAL INFORMATION - Listen to and understand information and ideas presented through spoken words and sentences
- SPEAK - Communicate information and ideas in speaking so others will understand
- COMPREHEND WRITTEN INFORMATION - Read and understand information and ideas presented in writing
- WRITE - Communicate information and ideas in writing so others will understand
- CONCENTRATE - Concentrate on a task over a period of time without being distracted
- RECOGNIZE PROBLEMS - Tell when something is wrong or is likely to go wrong
- REASON TO SOLVE PROBLEMS - Apply general rules to specific problems to produce answers that make sense
- COME UP WITH IDEAS - Come up with a number of ideas about a topic
- MAKE SENSE OF INFORMATION - Quickly make sense of, combine, and organize information into meaningful patterns
- REACH CONCLUSIONS - Combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events)

Additional Competency Requirements

- COMMUNICATION FOR RESULTS – Writes, speaks and presents effectively. Explains the immediate context of the situation, asks questions with follow-ups and solicits advice prior to taking action. Develops presentations to influence others by using graphics, visuals or slides that display information clearly. Listens and asks questions to understand other people's viewpoints.

- GROWTH MINDSET – Takes ownership of personal growth. Identifies knowledge gaps. Asks questions of subject matter experts and seeks help when needed. Keeps abreast of information, developments and best practices within a field of expertise (e.g., by reading, interacting with others or attending learning events).
- INITIATIVE – Volunteers to undertake tasks that stretch his or her capability. Identifies who can provide support and procures their input. Identifies problems and acts to prevent and solve them.
- OWNERSHIP AND COMMITMENT – Volunteers to undertake tasks that stretch his or her capability. Checks the scope of responsibilities of self and others. Monitors day-to-day performance and takes corrective action when needed to ensure desired performance is achieved. Identifies problems and acts to prevent and solve them. Identifies who can provide support and procures their input.
- ADAPTABILITY – Is open to any new challenge. Maintains flexibility and attempts new approaches as needed to accomplish objectives. Readily adopts new procedures, technology and priorities.
- ANALYTICAL THINKING – Undertakes a process of information and data collection and analysis for integration purposes. Identifies and makes sets of information and determines their relationships. Makes logical deductions from data. Identifies a solution for resolving the problem.
- CUSTOMER SERVICE – Asks questions in response to customers' requests for assistance on day-to-day needs. Responds promptly and courteously. Updates customers on progress. Solicits support and guidance as needed and refers/escalates customer requests appropriately. Applies attention to detail to routine tasks defined in formal, written procedures and oral instructions. Responds constructively to customer feedback on task output.
- INFORMATION SEEKING – Gathers and analyzes information or data on current and future trends of best practice. Uses appropriate tools, techniques and sources to gather, update and monitor information. Checks for accuracy of interpretation. Seeks out the appropriate people for guidance when needed, depending on the type of issue.
- INFORMATION SYSTEMS KNOWLEDGE – Aware of the primary uses of technology by customers, learning the systems of the enterprise and the customers affected. Responds to day-to-day requests for technical support in areas of primary usage. Escalates questions and problems to relevant technical expert groups.
- TEAMWORK – Understands own role and responsibility within team. Participates willingly by supporting team decisions, assisting other team members and doing his/her share of the work to meet goals and deadlines. Shares all relevant and useful information.
- THOROUGHNESS – Applies attention to detail to routine tasks defined in formal, written procedures and oral instructions. Seeks guidance on the quality and the degree of completion required to complete new tasks. Reprioritizes, as new deadlines are set. Responds constructively to customer feedback on task output.

Other competencies as required for successful performance in the lower-level series.

All employees of the City of Chicago must demonstrate commitment to and compliance with applicable state and federal laws, and City ordinances and rules; the City's Ethics standards; and other City policies and procedures.

The City of Chicago will consider equivalent foreign degrees, accreditations, and credentials in evaluating qualifications.

* May be required at entry.

City of Chicago
Department of Human Resources
March 2023