CLASS TITLE: PRINCIPAL DATABASE ANALYST

CHARACTERISTICS OF THE CLASS

Under direction, functions as a technical team leader for the design, implementation, and management of database systems and new database technologies, and performs related duties as required

As a technical expert OR team leader, assignments at this level typically require considerable knowledge of database design and analysis, or specialized knowledge of a subject matter, discipline, or function. Positions in this class title are allocated across various City departments and perform a wide range of functions that are specific to the operational needs of the department. Common specialty titles of functional roles for positions in this class title include but are not limited to: *Lead/Supervising System Database Analyst, Lead/Supervising Application Database Analyst, and Lead/Supervising Database Developer.*

Examples of the essential core functions that characterize this class are provided below for the purpose of distinguishing the level and scope of duties and responsibilities allocated to this class.

ESSENTIAL DUTIES

- Provides database analysis for moderate to complex database projects
- Directs the database-related activities of vendors and less experienced Database Analysts ensuring compliance with standards and specifications
- Designs database systems and reviews the designs of team members to ensure system performance and integrity
- Monitors project status and provides technical feedback to facilitate implementation of department projects
- Monitors and evaluates the performance of existing data systems and modifies access paths and reconfigures as required to ensure maximum utilization of disk space
- Resolves complex operations problems between databases and operating systems
- Designs and ensures the appropriateness of backup and recovery techniques and security architectures to protect the data against disk-level failures and unauthorized access
- Documents database techniques
- Designs, codes, tests, debugs, and documents computer programs
- Trains entry-level staff and team members in database techniques
- Installs and troubleshoots software, as required
- Serves as a liaison to operating departments, as required

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 years of experience in maintaining and designing integrated database systems, 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., telephone, printer, photocopier, fax machine, calculator)
- Personal computers and peripheral equipment (e.g., desktop computer, laptop computer, hand-held computer, computer terminals, modems, scanner)
- Client/server computer
- Local area/wide area communications network

PHYSICAL REQUIREMENTS

- No specific requirements

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS

Knowledge

Considerable knowledge of:
- *applicable computer software packages
- *methods, practices, and procedures for analyzing and resolving computer-related problems
- *commercial computer systems applications and their capabilities
- *methods and techniques of database analysis and design
- *computer systems management
- *distributed and centralized computer and computer operating systems
- *IT systems development practices, standards, and procedures
- *data security policies and processes
- *space management, file back up, and restoration/disaster recovery techniques

Moderate knowledge of:
- *programming logic, data manipulation, and integrated environments

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

Other knowledge as required for successful performance in the Senior Database Analyst class

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, taking 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
- MONITORING - Monitor and assess performance of one's self, other individuals, or organizations to make improvements or take corrective action
- *COMPLEX PROBLEM SOLVING - Identify complex problems and review related information to develop and evaluate options and implement solutions
- *SYSTEMS ANALYSIS - Determine how a system should work and how changes in conditions, operations, and the environment will affect outcomes
- SYSTEMS EVALUATION - Identify measures or indicators of system performance and the actions needed to improve or correct performance relative to the goals of the system
- PROGRAMMING – Write computer programs for various purposes
- *TROUBLESHOOTING - Determine causes of operating errors and decide what to do about it

Other skills as required for successful performance in the Senior Database Analyst class

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
- REASON TO SOLVE PROBLEMS - Apply general rules to specific problems to produce answers that make sense
- MAKE SENSE OF INFORMATION - Quickly make sense of, combine, and organize information into meaningful patterns

Other abilities as required for successful performance in the Senior Database Analyst class

Other Work Requirements

- INITIATIVE - Demonstrate willingness to take on job challenges
- ADAPTABILITY/FLEXIBILITY - Be open to change (positive or negative) and to considerable variety in the workplace
- DEPENDABILITY - Demonstrate reliability, responsibility, and dependability and fulfill obligations
- ATTENTION TO DETAIL - Pay careful attention to detail and thoroughness in completing work tasks
- INNOVATION - Think creatively about alternatives to come up with new ideas for and answers to work-related problems

- ANALYTICAL THINKING - Analyze information and using logic to address work or job issues and problems

Other characteristics as required for successful performance in the Senior Database Analyst class

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
October, 2014