CLASS TITLE: PRINCIPAL PROGRAMMER/ANALYST

CHARACTERISTICS OF THE CLASS

Under general supervision, functions as a technical expert or team leader in the maintenance, development and implementation of computer applications for distributed and centralized processing systems, and performs related duties as required

ESSENTIAL DUTIES

- Develops and maintains complex programs and procedures designed to meet business information needs
- Performs systems analysis and design functions for highly difficult applications for both centralized and distributed computer systems
- Supervises staff engaged in performing systems analysis and programming tasks
- Coordinates and reviews the development of computer systems by contracted vendors and internal staff
- Coordinates and monitors the modification and/or maintenance of existing programs and databases to conform to business requirements or systems changes
- Monitors and provides direction in program documentation, testing, and implementation processes
- Monitors applications to determine conformance with user requirements
- Troubleshoots and corrects complex software malfunctions
- Recommends upgrades to current computer systems based on various factors (e.g., business needs, availability of new technology, departmental budget for technology expenditures)
- Modifies existing programs to conform to business requirements or systems and process changes
- Provides technical training to staff and users

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 Sciences, Information Technology/Systems, or a directly related field, plus three years of experience in the design and development of computerized systems, or an equivalent combination of education, training and experience, provided that the minimum degree requirement is met.

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
- Micro and mini computers

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 operating systems
- *programming logic, data manipulation, and integrated environments

Moderate knowledge of:

- *computer systems management
- *IT systems development practices, standards, and procedures

Some knowledge of:

- supervisory methods, practices, and procedures

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

Other knowledge as required for successful performance in the Senior Programmer/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
- *COMPLEX PROBLEM SOLVING - Identify complex problems and review related information to develop and evaluate options and implement solutions
- INSTRUCTING - Teach others how to do something
- *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
- *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
- TECHNOLOGY DESIGN – Generate or adapt equipment and technology to serve user needs
- *TROUBLESHOOTING - Determine causes of operating errors and decide what to do about it

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

Other Work Requirements

- INITIATIVE - Demonstrate willingness to take on job challenges
- LEADERSHIP - Demonstrate willingness to lead, take charge, and offer opinions and direction
- 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 Programmer/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
(Valtera Corporation)

Date: July, 2010