

## **SAN MATEO COUNTY OFFICE OF EDUCATION**

### **CLASS TITLE: SYSTEMS ANALYST**

#### **BASIC FUNCTION:**

Under the direction of an assigned supervisor, perform a variety of specialized duties in the operation, development, maintenance and analysis of assigned computer database systems to meet County Office needs; assure smooth running of databases and systems by identifying requirements and resolving computer processing problems.

#### **REPRESENTATIVE DUTIES:**

##### **ESSENTIAL DUTIES:**

Perform a variety of specialized duties in the operation, development, maintenance and analysis of assigned computer database systems to meet County Office needs; make necessary alterations and assure proper functioning of assigned systems and databases; research production problems and implement corrective actions; troubleshoot, diagnose and resolve various system malfunctions.

Review and evaluate database designs to determine effectiveness and operational efficiency; identify database requirements by analyzing applications, file size, statistics and disk allocation; modify database systems to enhance system performance and presentation of data.

Maintain database performance by calculating optimum values for database parameters; assure proper system security and archival procedures; run anti-virus programs and install and update security applications, firewalls and patches as needed.

Install, update and maintain operating systems and software; test software and hardware and observe elements of the system for evidence of incorrect performance; make adjustments to assure smooth running of systems as needed; maintain and repair operating system configuration.

Provide for the effective and efficient storage, retrieval, customization and archiving of computerized data; troubleshoot and resolve database problems; assure data integrity; facilitate the collection, management, manipulation, reporting and distribution of computerized data used for analysis.

Monitor available system disk space; move and resize files as necessary to provide for program running, assure database integrity and enhance system performance; prepare backup data files in accordance with established procedures as required.

Perform a variety of network administration activities including establishing and maintaining user accounts as required; provide disaster recovery support and restore user files as necessary.

Program, develop, modify and analyze assigned computer systems, databases and applications to meet

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County Office needs, resolve data problems and provide for system enhancements as required; design, code, test and implement new databases and system applications as required.

Communicate with personnel and various outside agencies to exchange information and resolve issues or concerns.

Operate a variety of computers, servers, peripherals and specialized software.

Provide technical support to computer programming and operations staff; coordinate with networking staff concerning data security and firewall issues.

Maintain current knowledge of technological advances in database systems; research, evaluate and recommend the purchase of systems and software; coordinate related installation and data transfer requirements.

Prepare system documentation and conduct training sessions concerning systems and applications as directed.

**OTHER DUTIES:**

Perform related duties as assigned.

**KNOWLEDGE AND ABILITIES:**

**KNOWLEDGE OF:**

Practices, procedures and methods involved in the operation, development, analysis, modification, maintenance and repair of computer database systems.

Database structures, on-line applications and system capabilities of the County Office's computer systems. Principles, practices and techniques of database structures, system enhancements and computer programming.

Computerized data collection, management, manipulation and distribution requirements for analysis and reporting functions.

Principles, methods and procedures of operating computers and peripheral equipment.

Database system utilities and design and program applications.

Principles and practices of data processing as applied to automation of office procedures.

Record retrieval and storage systems.

Oral and written communication skills.

Interpersonal skills using tact, patience and courtesy.

Technical aspects of field of specialty.

**ABILITY TO:**

Perform a variety of specialized duties in the operation, development, maintenance and analysis of assigned computer database systems to meet County Office needs.

Troubleshoot, diagnose and resolve various system malfunctions.

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Assure proper functioning of assigned systems and databases.  
Modify database systems to enhance system performance and presentation of data.  
Install, update and maintain operating systems and software.  
Program, develop, modify and analyze assigned computer systems, databases and applications to meet County Office needs, resolve data problems and provide for system enhancements as required.  
Facilitate the collection, management, manipulation, reporting and distribution of computerized data used for analysis.  
Implement necessary alterations to enhance and assure proper functioning of assigned databases.  
Perform a variety of database administration activities.  
Operate computers and peripheral equipment properly and efficiently.  
Analyze situations accurately and adopt an effective course of action.  
Communicate effectively both orally and in writing.  
Establish and maintain cooperative and effective working relationships with others.  
Work independently with little direction.  
Plan and organize work.  
Meet schedules and time lines.  
Maintain records related to work performed.

**EDUCATION AND EXPERIENCE:**

Any combination equivalent to: bachelor's degree in computer science or related field and three years experience in the operation, development, analysis, modification and maintenance of computer database systems.

**WORKING CONDITIONS:**

**ENVIRONMENT:**

Indoor environment.

**PHYSICAL DEMANDS:**

Dexterity of hands and fingers to operate a computer keyboard.  
Seeing to read a variety of materials and view a computer monitor.  
Hearing and speaking to exchange information.  
Sitting for extended periods of time.