

SAN MATEO COUNTY OFFICE OF EDUCATION

CLASS TITLE: PROGRAMMER/ANALYST

BASIC FUNCTION:

Under the direction of an assigned Integrated Technology Director or Manager, create and maintain computer software programs, program documentation and operating instructions; perform analysis of computer systems, databases, software and applications to meet the needs of County Office and client school district technology users; resolve data problems, code system enhancements; design, code, test and implement new system applications and automation scripts.

REPRESENTATIVE DUTIES:

The following essential duties serve to demonstrate the general types of duties and functions this position requires, but may vary slightly depending on the program/division for which the position exists under.

ESSENTIAL DUTIES:

Create and maintain computer software programs, program documentation and operating instructions to meet the software technology needs of the County office.

Perform analysis of computer systems, databases, software and applications to meet the needs of County Office and client school district technology users.

Resolve data problems and code system enhancements; review, analyze and modify existing software programs; design, develop and implement new applications and automation scripts.

Facilitate the collection, management, manipulation, reporting and distribution of data used for analysis; verify integrity of data in new systems.

Design, code, write, develop and implement new system applications; revise programs as necessary to assure adaptation with existing computer systems; design, install, upgrade and configure software applications to enhance and assure smooth running of assigned computer systems.

Debug programs by preparing test data and testing program operations as assigned; run test data in actual computer operations; detect and resolve programming errors and miscalculations; troubleshoot and resolve database, system and application errors and malfunctions as necessary.

Evaluate existing system designs to determine effectiveness and operational efficiency; modify systems to enhance system performance and presentation of data; integrate new software and revise programs as necessary to assure adaptation with existing computer systems.

Provide technical support to County Office staff and technology users; respond to inquiries and provide training and information on software programs

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Prepare and develop technical design specifications, program descriptions, procedural manuals and user documentation according to established procedures; evaluate new technologies for effectiveness in meeting the business requirements and objectives of technology users.

Communicate with technology users and various outside agencies to exchange information, coordinate activities and resolve issues or concerns.

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

Thoroughly document all HelpDesk tickets in a timely manner to ensure there is sufficient information to communicate what the problem was, how it was remediated, and to suggest actions to prevent a similar issue (where appropriate).

Attend and participate in various meetings and trainings as assigned

OTHER DUTIES:

Perform related duties as assigned.

KNOWLEDGE AND ABILITIES:

KNOWLEDGE OF:

Management of operations and activities involved in the programming, development, operation, analysis, maintenance and debugging of designated County Office and school district computer systems, databases, hardware, software and applications.

Principles of programming and software development.

Principles, practices and methods of database structures, computer programming and system design, database structures, on-line applications and system capabilities of technology systems.

Customer service and help desk standards, practices, techniques and procedures.

Policies and objectives of assigned programs and activities, applicable laws, codes, regulations, policies and procedures.

Oral and written communication skills.

Interpersonal skills using tact, patience and courtesy.

Cyber security, disaster recovery and business continuity best practices

ABILITY TO:

Lead and participate in a variety of technical activities involved in the programming, development, modification and analysis of computer systems, databases, software and applications to meet technology user needs.

Learn new programming languages.

Review, analyze and modify existing applications and programs as necessary.

Facilitate the collection, management, manipulation, reporting and distribution of computerized data used for analysis.

Develop and implement programming projects, goals and objectives to meet County Office needs.

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Design programming solutions for application problems and malfunctions.
Integrate new applications and revise programs to assure adaptation with existing computer systems.
Maintain assigned databases to assure proper performance, operation and file-sizing.
Operate computers and peripheral equipment properly and efficiently.
Analyze situations accurately and adopt an effective course of action.
Work independently with little direction.
Plan and organize work.
Communicate effectively orally and in writing.
Establish, model, and maintain cooperative and effective working relationships with others.
Maintain various records related to work performed.
Understand and follow oral and written instructions.
Meet schedules and timelines.

MINIMUM QUALIFICATIONS:

Any combination of education and experience providing the job knowledge, skills, and ability for successful job performance will be considered for positions in this classification. Typical qualifications would be equivalent to:

EDUCATION: Bachelor's degree in computer science or related field: and

EXPERIENCE: Four years increasingly responsible direct experience involving the programming, development, analysis, maintenance and debugging of software applications.

LICENSES AND OTHER REQUIREMENTS:

Valid California driver's license.

WORKING CONDITIONS:

ENVIRONMENT:

Office environment

Driving a vehicle to conduct work.

Position eligible for hybrid on-site and remote work arrangement.

PHYSICAL DEMANDS:

Dexterity of hands and fingers to operate a computer keyboard.

Hearing and speaking to exchange information.

Seeing to view a computer monitor and read a variety of materials.

Sitting for extended periods of time.

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