FRESNO COUNTY SUPERINTENDENT OF SCHOOLS
CLASSIFIED POSITION[1]

SOFTWARE ENGINEER ANALYST

BASIC FUNCTION:
Under the direction of the Director of Application, Development and Support or assigned supervisor, perform a variety of specialized and complex duties in the development, maintenance and analysis of complex business applications, and databases in support of assigned systems; engage in research, design, development and implementation of new system applications and features as appropriate.

REPRESENTATIVE DUTIES:

ESSENTIAL DUTIES:
- Analyze program feasibility and development; analyze requests for application additions and revisions; confer with users to determine application requirements and desired functionality, resolve problems and provide support and assistance.
- Execute test scenarios; analyze new and revised applications for effectiveness and compliance with established goals, standards, and procedures; run test data in actual computer operations; diagnose, document, and resolve programming defects and erroneous data.
- Facilitate the collection, management, manipulation, reporting, and distribution of computerized data used for analysis; design upgrade and configure software applications to ensure smooth running of assigned computer systems; develop and modify existing applications and procedures to improve and resolve problems with computerized reporting and record maintenance.
- Operate a variety of computers, servers, peripherals and specialized software.
- Perform a variety of specialized duties in the development, maintenance, and analysis of complex business applications and databases to resolve software defects, meet county office needs, enhance system and job performance and provide for system enhancements; develop and implement coding for new and existing systems and applications.
- Prepare and maintain a variety of records and reports related to applications, databases, systems, and assigned activities; prepare programming documentation and error logs; generate a variety of computerized reports as required.
- Provide technical support to the team and system users; ensure team and user understanding of new and modified system applications; receive, troubleshoot, and provide feedback to user requests and inquiries regarding system performance, defects, and usability; assist users with maintaining automated records and generating computerized reports as directed.
- Reengineer business application software systems into current computer software products operating in a tiered multi-platform client server environment.
- Research, design, develop and implement new system applications and features as appropriate; modify existing software to enhance database operations and functions; integrate new software and revise existing applications and features as necessary to ensure compatibility with existing computer systems.
- Software maintenance on Legacy, Web-based systems, HTML based software, .NET, SharePoint, and web based reporting technologies.
- Utilize design and development tools such as Visual Studio and SQL Server Management Studio; create innovative solutions; prepare design and system/application documentation.

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- Attend and participate in a variety of assigned meetings, committees, conferences, in-services and/or special events.
- Comply with schedules, policies, regulations, procedures, orders and directives of the County Superintendent.
- Exhibit professionally appropriate interpersonal skills including but not limited to tact, patience, flexibility and courtesy.
- Maintain a safe work environment.
- Operate a variety of office equipment, including but not limited to a computer and assigned software applications.
- Serve as a liaison between County Superintendent and administrators, personnel, outside organizations or the public concerning assigned area.
- Serve as a technical resource concerning assigned program, function or instructional area.
- Work collaboratively and maintain effective working relationships with others in the course of work in the assigned program.

OTHER DUTIES:
- Drive a vehicle to conduct work, using own transportation.
- Perform related duties as assigned.
- Travel may be required in and outside of California.
- Work a flexible work schedule as required.

KNOWLEDGE AND ABILITIES:

KNOWLEDGE OF:
- Database structures, web-based applications and system capabilities of county office computer systems.
- Fundamental software engineering concepts.
- Microsoft Office Suite. (Word, Excel, Power Point & Access)
- Modern development tools such as Infragistics and Telerik user interface controls, ASP.Net, Team Foundation, WCF, XML, VB.NET, SQL.
- Multi-platform client server applications.
- Policies and objectives of assigned tasks, stories, and applications.
- Principles, practices and techniques of software engineering and system design.
- Principles, practices and techniques used in the development, maintenance and analysis of computer systems, databases and applications.
- Record-keeping and report preparation techniques.
- Software programming systems, applications and languages utilized by the county office.
- Techniques for testing and debugging software applications.
- User interface standards.
- Web-based ASP.Net application development.
- Proper English usage, grammar, spelling, punctuation and vocabulary in all forms of communication.
- State Education Code, local, state and federal laws, codes, regulations and requirements and county office organization, operations, policies and objectives as related to assigned activities and/or instructional area.
- Theoretical and technical aspects of field of specialty.

ABILITY TO:
- Maintain current knowledge of technological advances in the field.
- Maintain records and prepare reports.
- Meet schedules and timelines.

- Analyze and evaluate situations accurately and adopt an effective course of action.
- Communicate effectively both orally and in writing.
- Drive a vehicle to conduct work.
- Interpret, apply, and explain rules, regulations, policies and procedures.
- Maintain consistent, reasonable regular, punctual attendance consistent with federal, state and local standards.
- Safely and successfully perform essential job functions consistent with federal, state and local standards, including meeting qualitative and/or quantitative productivity standards.
- Work confidentially and with discretion.
- Work independently with little direction.

EDUCATION AND EXPERIENCE:

EDUCATION:
- High School Diploma, General Education Degree (GED) or State High School Proficiency certificate.
- Bachelor's degree in computer science or related field preferred.

EXPERIENCE:
- One year of experience in software development and databases preferred.

LICENSES AND OTHER REQUIREMENTS:
- Valid California driver's license; when driving for work, maintain automobile liability insurance in accordance with California Insurance Code section 11580.1 or maintain other statutorily authorized financial responsibility..
- Enrollment in the California Department of Motor Vehicles Government Employer Pull Notice Program at time of hire and throughout employment with County Superintendent.

WORKING CONDITIONS:

ENVIRONMENT:
- Drive a vehicle to conduct work, using own transportation.
- Office environment.
- Regular interruptions.
- Small and large group meetings.

PHYSICAL DEMANDS:
- Bending at the waist, kneeling or crouching; climb or balance.
- Eyesight corrected or uncorrected sufficient to read a variety of materials including but not limited to fine print.
- Hearing with or without use of hearing aid(s) sufficient to hear any conversation with others; understandable voice and speech patterns.
- Manual dexterity and coordination sufficient to operate office and/or classroom equipment.
- Sitting, standing and/or walking for extended periods of time.
- Use hands to handle and/or feel; reach with hands and arms.
- Must frequently lift, push, pull or carry up to ten (10) pounds and occasionally lift and/or move up to twenty-five (25) pounds.

The physical demands and working conditions described here are representative of those that must be met by an employee to successfully perform the essential functions of this position, subject to reasonable accommodation.

This position description may not be an exhaustive list of all duties, knowledge, or abilities associated with this classification, however it is intended to accurately reflect the principal job elements. Related duties, knowledge, or abilities to those expressly stated may also be required for successful performance of the position.

APPROVED:
Effective: July 1, 2004
Revised: October 1, 2013
Revised: April 3, 2014
Revised: October 1, 2017