

San Diego County Office of Education
Personnel Commission

SENIOR SYSTEMS AND PROGRAMMING ANALYST

Definition: Under minimal supervision, monitors, analyzes, develops, maintains and enhances comprehensive computer applications used by the SDCOE and school districts; analyzes and develops new or modified procedures as mandated and requested; researches new technologies/concepts; initiates and conducts feasibility studies; designs and tests models, and develops and sets associated standards; assists in the coordination and facilitation of complex team projects; acts as a resource regarding a comprehensive SDCOE information system and its associated subsystems.

Typical Tasks: Researches new technologies/concepts and studies the feasibility of their application to SDCOE systems and programs; designs and tests implementation models of the new technologies/concepts; develops and sets standards for IMS staff to use in processing data; participates in the design and modification of database storage structures; assists in planning, organizing, coordinating and overseeing the design, development and implementation of information technology projects for school districts and County Office staff; assists in assigning work and monitoring the systems and programming staff to ensure effective and timely project completion; facilitates meetings to discuss project progress; coordinates walk-throughs and attends program reviews; monitors testing and troubleshoots problems; provides training and acts as a resource for other programming staff regarding a comprehensive information system and its associated subsystems; consults with state, county, district and school personnel to design new systems, and modify and enhance existing systems with respect to their adaptability to electronic data processing and the desired results; monitors and evaluates efficiency of daily application usage and annual and cyclical processes, and initiates improvements as necessary; maintains current knowledge of applicable rules, laws and regulations, and formulates computer systems requirements based on legal, mandated and requested changes; participates in the design and modification of forms, records and reports and the revision of existing related materials in use by supported network applications; develops conceptual and detail specifications for new and existing systems and structured programs; prepares system-level and client program documentation; codes program instructions in applicable language such as COBOL or Visual Basic; coordinates structured system tests; audits test results and corrects system and program logic errors; designs input and output formats and forms; prepares and maintains system and program history data; consults with supervisors, other staff members, operations personnel and clients in arriving at solutions to programming and system design problems; supervises and participates in program modifications; prepares instructions and manuals for users; initiates and conducts feasibility studies; performs related duties as assigned.

Minimum
Qualifications:

Thorough knowledge of: principles and techniques of structured systems design and structured computer programming as they pertain to both mainframe and microcomputer platforms; COBOL, Visual Basic and other appropriate programming languages; database storage and access; network communications. Ability to: research new technologies/concepts and conduct feasibility studies; design and test implementation models and develop associated standards; apply principles of information management to a variety of application problems; design cost-effective systems and programs using database and network access techniques; be efficient, accurate and thorough in the preparation of systems and program documentation; analyze and solve problems in program logic and machine operations; maintain current knowledge of technological advances in the information technology field; coordinate and facilitate complex information technology projects; communicate effectively orally and in writing; work independently, as a team leader and as a member of a team; and establish and maintain effective working relationships with those contacted in the course of work. Knowledge of Unisys A series mainframe computer systems, MCP operating system, LINC, Progeni, COMS, Windows NT, HTML, ASP and SQL is highly desirable.

Education and
Experience:

A combination of education, training and experience which would clearly demonstrate possession of the knowledge and abilities detailed above. An example of a typical qualifying background would include: a minimum of three (3) years of work experience performing comparable duties involving the use of high-level programming languages used by systems in a complex and integrated LAN or WAN environment, and the development of microcomputer applications, AND completion of college-level course work in information systems, computer science or closely related field. Ideal candidate will have full-time paid experience in a lead position involved with interfacing network applications to mainframe computers; and/or experience coordinating and facilitating solutions requiring a team effort. .

Distinguishing
Characteristics:

The Senior Systems and Programming Analyst is distinguished from the Programmer/Systems Analyst II in that the former not only performs senior-level systems analysis and programming in the design, development and implementation of complex computer applications, but also spends a significant amount of time researching and evaluating new technologies/concepts and developing and testing models and associated standards for other IMS staff to use in processing data. The Senior Systems and Programming Analyst may also assist in planning, organizing and overseeing the design, development and implementation of complex information technology projects. The Senior Systems and Programming Analyst provides training and acts as a resource for other programming staff regarding a comprehensive system (e.g., payroll, SIS, FACS) and its associated subsystems.

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