

SENIOR PROGRAMMER ANALYST

DEFINITION

Analyzes, designs, writes, codes, debugs, tests, modifies, maintains, and documents highly complex computer applications and programs and provides technical direction to programming staff on a project-by-project basis. Programming responsibilities span a range of servers and client computing devices.

TYPICAL DUTIES

- Confers with management and operating unit staff to define the scope of information requirements, and evaluate alternative approaches to improving information systems.
- Designs information systems that require innovative and/or diversified approaches to the resolution of problems in the areas of data collection, data reduction and coding, systems control, auditing, processing cycles, and inquiry and reporting.
- Conducts feasibility studies of highly specialized or unusually complex work processes and procedures to determine their adaptability to information technology.
- Formulates logical statements of business problems and develops systems designs detailing sequences of operation, systems block diagrams, flowcharts and instructions, and computer programming standards and specifications.
- Analyzes existing systems and programming logic difficulties and revises logic procedures.
- Advises users of revisions to existing methods, forms, records, and reports in order to adapt them to information technology.
- Writes and maintains batch and on-line computer programs for mainframes, servers, and personal computers.
- Writes, codes, and makes modifications to highly complex programs including but not limited to SAP modules.
- Creates job control language for batch operations.
- Develops test data for highly complex programs, reviews results of testing for accuracy and completeness, and corrects errors in program logic.
- Communicate with users as necessary to respond to requests for assistance or to explain proper use of highly complex programs.
- Analyzes highly complex operations problems and takes corrective action.
- Instructs programming staff in applying innovative and advanced analytical and programming techniques to the resolution of problems.
- Prepares and maintains program documentation.
- Ensures data security under the guidelines of District policies and regulations.
- Adopts new programming language(s) or technology(ies) to current environment.
- Provides technical assistance to less senior programming staff on a project-by-project basis.
- Participates in the evaluation of new information technology equipment and software.
- May design, develop, and maintain web sites.
- Performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

A **Senior Programmer Analyst** performs systems analysis, design, and programming duties involving highly complex computer applications and programs; provides technical direction to programming staff on a project-by-project basis.

A **Supervising Systems and Programming Analyst** is responsible for supervising the work of a small group of programming staff, provides liaison with operating units affected by studies, and personally performs the most difficult systems analysis, design, and programming work of the unit.

A **Programmer Analyst** performs systems analysis, design, and programming duties involving complex computer applications and programs or segments of highly complex programs; may provide technical assistance to assigned programming staff.

An **Assistant Programmer Analyst** performs routine programming duties and performs progressively more difficult assignments in problem analysis and systems design under the work direction of journey-level programming staff.

SUPERVISION

General supervision is received from a Systems and Programming Manager or Supervising Systems and Programming Analyst. General supervision is exercised over assigned programming staff on a project-by-project basis.

CLASS QUALIFICATIONS

Knowledge of:

- Complex computer programming techniques
- Programming languages such as C, C++, Visual Basic, Java, COBOL, ACMS, Visual Basic for Applications (VBA), ABAP, etc.
- Script languages such as Vbscript, Javascript, Jscript, PERL, etc.
- Reporting tools such as MS Access, Crystal Reports, webFOCUS, etc.
- Database systems such as Rdb, Oracle, Access, SQL Server, etc.
- Enterprise Resource Planning (ERP) systems such as SAP, Peoplesoft, Oracle, etc.
- Capabilities of mainframes, application, database, and web servers and other equipment
- Web page design and development using tools such as .ASP, Dreamweaver, Visual Studio, SAP Portals, etc.
- Fourth generation languages such as FOCUS
- Principles of systems analysis, design, and testing
- Principles of report, forms, and screen design
- Principles of program documentation
- Information technology concepts and capabilities
- New trends in the field of information technology
- Business procedures and methods
- Principles of training
- Principles, procedures, and methods used in data acquisition, storage, structuring, and retrieval
- Principles and practices of business and public administration
- English usage, punctuation, and spelling

CLASS QUALIFICATIONS (Cont.)

Ability to:

- Conduct surveys and feasibility studies
- Prepare clear and logical systems design
- Analyze highly complex problems in information systems
- Write and code highly difficult and complex programs
- Develop test data and analyze problems in highly complex programs
- Prepare block diagrams and flowcharts
- Prepare clear and logical system designs
- Adapt business methods and procedures to information technology
- Write clear and logical program documentation
- Write clear and comprehensive reports and instructions
- Fully utilize the commands, functions, and operations commonly used in mainframe, server-based, client-based, and other related software
- Respond to highly complex programming needs/problems accurately and take appropriate action
- Communicate highly complex technical concepts both orally and in writing
- Provide technical assistance to users and staff members with lower-level technical skills
- Work effectively and cooperatively with District staff
- Train staff assigned to projects
- Learn and apply new concepts in information technology
- Learn the characteristics of new systems and update skills to adapt to changing technology

ENTRANCE QUALIFICATIONS

Education and Experience:

Graduation from a recognized four-year college or university preferably with a degree in management information systems, computer science, computer engineering, or related field **AND** three years of recent full-time paid experience in business applications analysis, design, and programming for medium or large scale, multi-programmed computers. Experience with an Enterprise Resource Planning (ERP) system is desirable.

Special:

- A valid California Class "C" driver's license.
- Access to an automobile.