

PROGRAMMER

DEFINITION

Under general supervision plans program development and analyzes applications; writes programs in Crystal Reports and Structured Query Language (SQL); tests, debugs, documents, installs, and troubleshoots programs for business and academic applications; operates computer systems; and performs related work as required.

EXAMPLES OF DUTIES

Consults with user on requirement capabilities and limitations, time constraints, and existing system. *E*

Plans approach, defines problem, describes input/output, and determines resources/time required for project cost effectiveness. *E*

Analyzes data to create reports and/or reviews output on CRT screen. *E*

Describes data elements in detail. *E*

Codes steps in appropriate computer language, usually Crystal Reports and SQL. *E*

Analyzes and tests data to validate report and/or file output, tests programs and revises until error-free. *E*

Completes run sheet; writes system overview; assembles back-up documents. *E*

Writes user instructions, instructing user in proper procedures for input/use of system. *E*

Operates Microsoft Windows and Windows\_Server computer system, and peripheral equipment. *E*

Identifies problems/solutions; makes corrections; determines/consults with user about modifications; makes and tests modifications to program. *E*

Performs related work as required.

**MINIMUM QUALIFICATIONS**

**Knowledge of:**

1. Information Technology terms, practices, and procedures at a level sufficient to explain and justify complex proposals for applications/systems/hardware to supervisor, users, and administration;
2. System and Information Technology hardware capabilities/limitations, use, and compatibility with current hardware;
3. General principles of supervision and training; and
4. Crystal Reports and SQL programming languages.

**Ability to:**

1. Converse on telephone;
2. Draw flowcharts;
3. Operate computer terminal keyboard and mouse;
4. Communicate about and solve problems in Informational Technology programming and systems analysis;
5. Read and understand complex instructions on Information Technology in vendor manuals;
6. Train users in procedures;
7. Analyze proposals for application, determining feasibility, cost, and time;
8. Write, test, debug, maintain, document, and install programs in Crystal Reports and SQL for business and academic applications;
9. Supervise the work of others;
10. Understand and carry out oral and written instructions;
11. Establish and maintain effective relationships with those contacted in the course of work; and
12. Maintain work pace appropriate to given workload.

**EDUCATION**

Completion of advanced training in Information Technology programming.

**EXPERIENCE**

Recent responsible experience at a skilled level in information services programming.

**WORKING CONDITIONS**

**Environment:**

Office environment.

**Physical Abilities:**

Dexterity of hands and fingers to operate a folder/sealer; seeing to assure accuracy of work; moderate lifting up to 40 pounds; carrying, pushing or pulling items weighing up to 60 pounds; hearing and speaking to exchange information; sitting for extended periods of time.

Physical Activities:

Dexterity of hands and fingers to operate computer keyboard and hand tools; sitting for extended periods of time; lifting, pushing, pulling, and carrying objects; bending at the waist; kneeling and crouching to work on peripherals and microcomputers; seeing to configure and install hardware and software; lifting heavy objects weighing up to 40 pounds; and hearing and speaking to exchange information.

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7/91

7/94