



## Job Description

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**JOB TITLE:** Senior Programmer Analyst

**DATE APPROVED:** June 2012

**DEPARTMENT:** Information Services

**REPORTS TO:** Information Technology Manager

**SUPERVISION:**

**EMPLOYEE UNIT:** Mid-Management

**FLSA:** Exempt

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**JOB SUMMARY:** To plan, design, code, test, modify, debug, document, and train users on the use of custom developed software and computer interfaces. Work involves programming in various computer languages on multiple platforms for the purpose of storing, retrieving, and efficiently utilizing business information and automating routine tasks to help support the functions of City departments and Information Services.

**EXAMPLES OF ESSENTIAL DUTIES:** Duties may include, but are not limited to, any combination of the following:

- Works with other City departments, end-users, other IT staff and vendors to clearly understand business flows for the purpose of designing and implementing efficient software-based solutions.
- Analyzes and modifies existing scripts and code developed by others.
- Converts data between business applications and databases.
- Develops and/or participates in the development of software specifications and standards.
- Evaluates and compares software solutions based on technical functionality and requirements.
- Designs and builds user-friendly interfaces for data entry, retrieval and analysis.
- Designs and optimizes SQL databases for use with business applications systems.
- Works with the City's Geographic Information Systems (GIS) staff to develop map-based programs.
- Assists with the programming of specialty hardware such as security, A/V, intercom, radio, phone system, kiosk, pay station and SCADA devices.
- Develops web and mobile interfaces to business systems.
- Writes, manages and monitors an online payment system for the City.
- Assists City staff with the more complex data-driven reports.
- Installs and troubleshoots computer software and hardware.
- Tests and debugs systems to assure functionality conforms to specifications.
- Delivers and/or coordinates standard and customized training to City employees.
- Prepares systems flow charts and develops systems and end-user documentation.

### EMPLOYMENT STANDARDS

#### Knowledge of:

- computer hardware, software, and networking;
- software development lifecycles, techniques and methodologies;
- team-based software development practices and tools;
- software flow diagramming;
- procedural and object oriented programming methodologies;
- multi-tier processes and data flows;
- relational and SQL databases, report engines and performance testing tools;
- open source concepts and code sharing;
- encryption algorithms and techniques;
- systems testing techniques and debugging tools;
- developing and delivering technology training to employees.

**Ability to:**

- effectively communicate both orally and written;
- work efficiently both independently and as part of a team;
- keep up-to-date on the current programming tools and methodologies;
- readily learn and apply new techniques;
- program using scripting, procedural programming and object oriented programming languages on Microsoft Windows and Linux operating systems;
- develop web-based applications and interfaces;
- develop and administer SQL databases including the use of stored procedures, user defined functions, constraints and triggers, and optimization through design and indexing;
- reason logically and clearly with abstract data;
- give continuing, meticulous attention to detail;
- concentrate on many complex elements of a problem;
- effectively manage time while working on multiple projects simultaneously;
- setup, manage and use a concurrent versions system (CVS);
- research, analyze, evaluate, and test commercial and open source software;
- write instructions and procedures and prepare systems and programming documentation;
- apply good customer service skills and best practices;
- touch-type a minimum of 40 words per minute.

**PHYSICAL REQUIREMENTS:** Physical requirements described here are representative of those that must be met by an employee to successfully perform the essential functions of this job.

- sit at a desk and in meetings for long periods of time
- intermittently twist to reach equipment surrounding desk, and perform simple grasping and fine manipulation
- see adequately to read text, correspondence and fine print
- work indoors using near vision and computer displays for prolonged periods
- occasionally lift and/or move up to 25 pounds
- occasionally bend, stoop, reach, twist, and kneel

**TRAINING AND EXPERIENCE**

Any combination of training and experience which provides the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities is:

**Education/Experience:**

*Education:* Equivalent to Bachelor's Degree from an accredited four-year college or university in Computer Science or related curriculum;

*Experience:* And two (2) years of employment experience as a programmer of database business systems.

**Licenses/Certificates:**

- Possession at the time of hire and continued maintenance of a valid California Driver's license and safe driving record.

**OTHER REQUIREMENTS**

Must successfully complete a background investigation as a condition of employment.