

DATABASE ANALYST

DEFINITION

Under general supervision, performs technical tasks related to the configuration, troubleshooting, maintenance, and monitoring of the Santa Clara County Housing Authority's (Agency's) databases; performs database performance analysis and assists in building interfaces between databases and end-user query tools; performs analysis, troubleshoots database problems, and ensures data integrity; creates reports; provides recommendations, support, and training to other information technology staff and Agency users in areas of responsibility; performs related work as required.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Business Systems Supervisor. Exercises no supervision of staff.

CLASS CHARACTERISTICS

This is a journey-level class responsible for performing complex technical assignments, projects, and analyses in support of Agency databases and managing complex data structures and/or manipulating data sets for Agency-wide systems. Responsibilities require the use of tact, discretion, and independent judgment and to have full and thorough knowledge of the concepts, practices, procedures, and policies of assigned function. Work is typically reviewed upon completion for technical soundness, appropriateness, and conformity to policy and requirements and the methodology used in arriving at the end results are not reviewed in detail. This classification is distinguished from the Senior Business Systems Analyst by the complexity and size of the systems supported and the amount of discretion exercised over problems and resolutions, as well as the latter leads projects and serves as a technical leader and subject matter expert in specific area(s).

EXAMPLES OF TYPICAL JOB FUNCTIONS (Illustrative Only)

Management reserves the rights to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.

- Designs, creates, and runs reports used for business process analysis and decision-making; sets up report definitions and designs methods to import/export data; performs comparative analysis of data from dissimilar applications; builds interfaces between databases and end-user query tools; implements automated processes, scripts, triggers, specialized views, and reports in response to user needs.
- Designs and maintains database infrastructure; organizes and converts data into relational tables; analyzes access paths by identifying logical and physical indices; maintains relational data models as new information and table structures are added; makes recommendations for data standardization and normalization; integrates data and functionality with other specialized applications.
- Identifies table relationships and builds Structured Query Language (SQL) data manipulation scripts to extract data; troubleshoots data extraction issues.
- Ensures database security by preparing access and control policies and procedures and reviewing permissions on a regular basis.
- Designs and assists with the use and development of Agency required database generated forms; consults with users on revisions, to and creation of new forms, and develops and/or modifies forms and scripts for report file generation.
- Monitors disaster recovery and backup processes and schedules; verifies that backups are successful and data can be recovered.
- Responds to and resolves software users' inquiries and complaints and escalates problems or issues to vendor representatives as needed.
- Works on and is responsible for database research, development, and installation, upgrade, and maintenance projects, coordinates project activities with other information technology staff, user representatives, and outside vendors.
- Develops and recommends comprehensive standards, policies, and procedures pertaining to database operations and security.
- Writes and maintains user and technical operating instructions and documentation; prepares training materials and conducts formal and informal training programs on the use and operation of the applications and advises on best practices.

- Stays abreast of new trends and innovations in technology related to systems operations; researches, recommends, and evaluates vendor solutions and technologies; implements improvements; works with staff to maintain, revise, or improve operations and systems.
- Performs technical help desk support including handling customer inquiries and complaints and resolving requests by remote session, telephone, or email.
- Performs other duties as assigned.

QUALIFICATIONS

Education and Experience:

A bachelor's degree from an accredited four-year college or university with major coursework in management information systems, computer science, or a related field and four (4) years of progressively responsible experience in database analysis, design, and development.

Licenses and Certifications:

None.

Knowledge of:

- Principles of relational database management and systems integration analysis.
- Data management and warehousing and Extract, Transform, and Load (ETL) theories, techniques, principles, and practices.
- Various information technology platforms, operating systems, and software packages including word processing, spreadsheet, SQL database and database management, and reporting tools.
- Principles and practices of project management, identifying technology needs and issues, researching and evaluating technology, applications, and the most effective courses of action, and implementing solutions.
- Principles and practices used in the installation, evaluation, configuration, operation, troubleshooting, and maintenance of computer hardware, software, servers, mobile, audiovisual, web based applications, and other related technologies and equipment.
- Techniques and methods of writing and maintaining user and technical operating instructions and documentation.
- The organization, operation, and functions of the department as necessary to assume assigned responsibilities and to determine appropriate point of escalation.
- Applicable federal, state, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.
- Principles of record-keeping.
- Modern office practices, methods, and computer equipment and applications related to the work.
- English usage, spelling, vocabulary, grammar, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and Agency staff.

Ability to:

- Design, create, and run reports by setting up report definitions and designing methods to import/export data, building interfaces between enterprise databases and end-user query tools, and implementing automated processes, scripts, triggers, and specialized views.
- Prepare clear and concise program documentation, user procedures, reports of work performed, and other written materials.
- Perform analyses of database requirements and needs; identify, evaluate, and solve systems problems; design and implement new or revised systems and procedures; provide technical advice and consultation, and ensure efficient database utilization.
- Perform a variety of technical support functions in the installation, evaluation, configuration, operation, troubleshooting, and maintenance of computer hardware, software, servers, networks, and other related technologies and equipment.
- Understand, interpret, and explain database and hardware and software application solutions to users; research technical materials to provide solutions to problems.
- Participate in design sessions and process improvement sessions to identify business and user needs and discuss database capabilities and modifications needed for improvement.

- Develop and maintain technical operating instructions and documentation.
- Interpret, apply, explain, and ensure compliance with federal, state, and local policies, procedures, laws, rules, and regulations.
- Establish and maintain a variety of filing, record-keeping, and tracking systems.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

PHYSICAL DEMANDS

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. This is primarily a sedentary office classification although standing in work areas and walking between work areas may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects up to 25 pounds.

ENVIRONMENTAL ELEMENTS

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances, duties of this class may be performed in an environment with exposure to various odors/fragrances. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.