

DATABASE ANALYST I
DATABASE ANALYST II

DEFINITION

Depending on assignment, to perform professional level work involving the design, installation, administration, update, and security of spatial and relational databases and/or the implementation of GIS solutions including scripting automation, monitoring and responding to performance alerts; to build interfaces and business intelligence solutions for applications; and to provide support to information systems personnel and user departments relative to assigned database system needs. Positions will be assigned a functional area. Periodically employees may be temporarily assigned duties of other functional areas or rotated based on operational needs.

DISTINGUISHING CHARACTERISTICS

Database Analyst I - This is the entry level class in the Database Analyst series. This class is distinguished from the journey level by the performance of the more routine tasks and duties assigned to positions within this series. Employees at this level are not expected to perform with the same independence of direction and judgment on matters allocated to the journey level. Since this class is typically used as a training class, employees may have only limited or no directly related work experience. Employees work under general supervision while learning job tasks.

Database Analyst II – This is the journey level class within the Database Analyst series and is distinguished from the I level by the assignment of the full range of duties. Employees at this level receive only occasional instruction or assistance as new, unusual or unique situations arise and are fully aware of the operating procedures and policies within the work unit. Positions in this class are flexibly staffed and are normally filled by advancement from the I level.

This class is distinguished from the Senior Database Analyst in that the latter performs the most difficult and responsible types of duties assigned to classes within this series including assigned responsibilities for database management and exercises technical and functional supervision.

SUPERVISION RECEIVED AND EXERCISED

Database Analyst I

Receives general supervision from an Information Technology Program Manager and may receive technical and functional supervision from a Senior Database Analyst.

May exercise technical and functional supervision over technical and administrative support personnel.

Database Analyst II

Receives direction from an Information Technology Program Manager and may receive technical and functional supervision from a Senior Database Analyst.

May exercise technical and functional supervision over technical and administrative support personnel.

EXAMPLES OF ESSENTIAL DUTIES - Duties may include, but are not limited to, the following:

All Functional Areas:

Design, install, administer and operate databases, data integration platforms and/or data analytics platforms; install, verify and test patches and upgrades and monitor for performance; monitor and respond to database performance issues and make changes as necessary; provide database support during vendor upgrades.

Research, plan, install, configure and test new systems; maintain and upgrade existing systems and interfaces; monitor and respond to performance issues and make changes as necessary; provide database, integration and data solutions support; create and modify data interface and data query language scripts.

Design and implement integrations and interfaces between database systems and with other City systems.

Design and implement database data extraction, translation, and loading (i.e. ETL) scripts and models to support multiple City systems.

Coordinate assigned functions with and provide support to other departments, other jurisdictions and agencies, and the general public; advise information systems personnel on database matters; assist with the training of City staff as it relates to database systems; create procedural and technical documentation.

Optimize assigned databases by performing routine maintenance procedures, including but not limited to, reindexing and updating statistics; check for database consistency; detect and repair database corruption.

Administer and create cloud based collaborative solutions including system platforms, researching upcoming features, and assisting users.

Design and implement backup and recovery plans; test backup plans; create and manage tables, indexes and related systems and processes; test backup plans and perform database restores as needed across database environment; routinely monitor backup logs to ensure backups are timely and complete.

Create, maintain and audit user permissions, system privileges, passwords and other security methods; install, administer and monitor license management software; check logs and files for evidence of problems and system failure.

Monitor assigned database and application performance against established standards; detect and troubleshoot problems.

Prepare related project status reports as required.

Provide advanced level support for the data solutions and database related issues.

Partner with City departments and provide database solutions to meet business needs; integrate database applications with other City enterprise systems.

Research and recommend vendors, software and services.

Develop and promote standardization and best practices; develop architecture and governance; prepare and maintain procedures to ensure consistent work processes.

Perform technical duties related to the integration of data between enterprise systems.

Prepare technical and administrative reports; review, prepare, and update internal system documentation and end user training instructional materials; conduct cross-training, and end user training on group or individual basis as needed; develop policies and procedures.

Build and maintain positive working relationships with co-workers, other City employees and the public using principles of good customer service.

Perform related duties as assigned.

GIS Architecture/Administration Functional Area:

Administer the City's Enterprise GIS databases and web applications including, but not limited to, SQL Server installations, performance monitoring and tuning administering database backups, restores and migrations, database schema design and changes and web service publishing and administration.

Provide business intelligence solutions which involve the analysis of city data including demographic and location based information for use in the creation of reports, maps, dashboards and applications.

Administer, design, configure, and maintain spatial geodatabases.

Reconcile and post departmental GIS data updates.

Administer the City's ArcGIS open data platform, ArcGIS Server and Portal; create and maintain open data content; publish ArcGIS Web-Based content for Citywide and public consumption.

Install and support GIS software for the City's Enterprise GIS Program.

Develop and maintain enterprise GIS python scripts and model builder.

Participate in emergency preparedness planning and implementation activities to facilitate the work of City departments, other public and social service agencies; provide information and training

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regarding GIS functions related to emergency situations.

Produce data layers, maps, tables, or reports, using spatial analysis procedures or Geographic Information Systems (GIS) technology, equipment, or systems; perform integrated or computerized Geographic Information Systems (GIS) analyses to address business needs.

Database Architecture/Data Analytics Functional Area:

Work as part of a project team to build, deploy and support Database and Data Warehouse capabilities; audit database for compliance.

Provide technical support in the planning of new database systems including high availability, hardware, operating systems, licensing and storage requirements for new systems.

Perform data mining to extract information for the implementation of business intelligence solutions including mining/querying data, creation and maintenance of business intelligence platform, producing reports and creation of dashboards.

Develop data integrations between different products so they work properly together, and ensure integrations and data transfers between systems are done in a secure fashion using managed data transfer software.

MINIMUM QUALIFICATIONS

Database Analyst I

Knowledge of:

All Functional Areas:

Computer operating methods, languages and procedures.

Disaster planning and business recovery methods and techniques.

Principles and techniques of scripting, report writing, programming, electronic data processing and documentation.

Principles and practices of Oracle and SQL Server databases, storage, Windows Server Operating systems and network terminology; computer systems and related analysis and design.

Network and network security related to database implementation and administration.

Methods of data analysis.

Records storage and handling techniques.

Computer operating methods, languages and procedures.

System licensing, auditing and compliance.

Principles and practices of project management.

Principles and practices of customer service.

GIS Architecture/Administration Functional Area:

Principles and practices of Geographic Information Systems databases.

Principles and practices of spatial analysis.

GIS theory and concepts.

Principles and practices of ESRI, ArcGIS Desktop, ArcGIS Enterprise including ArcGIS Server, ArcGIS Enterprise Portal / Server, ArcGIS Data Store, and ArcGIS Web Adaptor.

Algebra, geometry and trigonometry, especially as related to computation of distances, angles and areas.

Enterprise GIS databases, feature datasets and classes, relationship classes, topologies, and raster catalogs.

Database Architecture/Data Analytics Functional Area:

Principles and techniques of SQL, scripting, report writing, programming, electronic data processing and documentation.

Relational Database theory, design rules and development practices including data modeling, data flow, entity relationship design, and database recovery techniques.

Database backup plans, logs, monitoring, and data recovery.

Database security roles, permissions, and data transfer security.

Workflow and process improvement methodologies.

Business Intelligence software (ex. Power BI, SQL Server Reporting Services)

Methods of data mining and analysis.

Ability to:

All Functional Areas:

On a continuous basis, know and understand all aspects of the job. Intermittently analyze work papers, reports and special projects; identify and interpret technical and numerical information; observe and problem solve operational and technical policy and procedures.

On a continuous basis, sit at desk for long periods of time. Intermittently twist to reach equipment surrounding desk; perform simple grasping and fine manipulation; use telephone, and write or use a keyboard to communicate through written means; and lift or carry weight of 30 pounds or less.

Provide technical expertise to City departments in support of business goals.

Maintain and implement security systems and methodologies.

Train or instruct users in the use of various databases.

Create and maintain backup and recovery procedures.

Create and update scripts to automate database processing and maintenance.

Prepare and present a variety of reports and maintain accurate records and files.

Maintain confidentiality as necessary.

Work weekends, evenings or standby, as required.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of work.

GIS Architecture/Administration Functional Area:

Perform professional level work in designing and maintaining the City's Enterprise Geographic Information System.

Diagnose, maintain, and troubleshoot the Enterprise Geographic Information System and related network systems.

Install and configure Geographic Information System specific desktop/server hardware and software.

Understand cartographic principles such as coordinate systems, scale and resolution, projections, and thematic mapping techniques for simple map composition and production, and database construction.

Database Architecture/Data Analytics Functional Area:

Install and configure database specific desktop/server hardware and software.

Diagnose, maintain, and troubleshoot database and related network data systems.

Experience and Training

Experience:

No professional experience is required.

AND

Training:

A Bachelor's degree from an accredited college or university, preferably with major course work in computer science, information systems, GIS or a related field.

License or Certificate:

Possession of a valid California driver's license by date of appointment.

Database Analyst II

In addition to the qualifications for the Database Analyst I:

Knowledge of:

All Functional Areas:

Principles and practices of business analysis.

Research, administration and management related to databases.

Extract, transform, and load (ETL) methodologies.

Principles and practices of SQL Server databases, storage, Windows Server operating systems, and network terminology; computer systems and related analysis and design.

Workflow and process improvement methodologies.

Principles and practices of project management.

Computer logic and mathematics.

Disaster planning and business recovery methods and techniques.

Methods of database backup plans, logs, monitoring and data recovery.

GIS Architecture/Administration Functional Area:

Principles and practices of complex GIS database design, integration, implementation, operation, maintenance, and data manipulation.

Methods of advanced research, analysis, and management related to GIS system applications and databases.

Database Architecture/Data Analytics Functional Area:

Principles and practices of complex database design, implementation, operation, maintenance, and data manipulation.

Relational database theory, design rules and development practices.

Ability to:

All Functional Areas:

Troubleshoot, diagnose and resolve issues effectively.

Prepare written procedures for complex database solutions.

Understand and determine system and/or business requirements in collaboration with other Information Technology staff, users and vendors.

Participate in, or lead, cross functional teams and meetings.

Write operating instructions and procedures for electronic data processing machine applications.

Troubleshoot, design, program, install and maintain highly technical and complex operating programs.

Manage multiple implementation and upgrade projects.

Perform budgeting, cost analysis and provide database solution recommendations based on cost-benefit calculations.

Create meaningful and professional dashboards and reports.

GIS Architecture/Administration Functional Area:

Implement, review and perform GIS platform administration tasks.

Independently perform professional work in support of the City's Enterprise Geographic Information System, data management and analysis, and related network infrastructure.

Database Architecture/Data Analytics Functional Area:

Independently perform professional work in support of a variety of databases, data management and analysis, and related network infrastructure.

Experience and Training

Experience:

Two years of responsible experience performing duties similar to that of a Database Analyst I, within the respective assignment, with the City of Roseville.

AND

Training:

A Bachelor's degree from an accredited college or university, preferably with major course work in computer science, information systems, GIS or a related field.

License or Certificate

Possession of a valid California driver's license by date of appointment.

04-09-22

09-12-17

05-24-17

08-25-12

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07-01-97

Database Administrator