

Washington County

SQL Database Administrator

Job Description

Exempt: Yes

Department: Assessor

Reports To: Chief Deputy Assessor

Location: Assessor's Office

Prepared: July 2013

Date Revised: July 2013

GENERAL DESCRIPTION OF POSITION

Develops and implements the strategy pertaining to relational database design and administration and maintains all software pertaining to the Assessor's office.

Maintains Windows Server platform and SQL software to best practices.

ESSENTIAL DUTIES AND RESPONSIBILITIES

1. Design, build and manage logical/physical databases and models based on proactive identification of business needs for data and information usage. This duty is performed about 25% of the time.
2. Administer database and application-level security. This duty is performed about 25% of the time.
3. Manage the use of analytical, query and reporting tools used against the data warehouse and other databases. This duty is performed about 15% of the time.
4. Monitor database performance and make necessary changes to increase performance. This duty is performed about 15% of the time.
5. Communicate potential use of analysis and reporting tools and their capabilities to business users. Design business intelligence functionality using selected tools. This duty is performed about 10% of the time.
6. Administer Databases:
 - Design logical and physical databases or review description of changes to database design to understand how changes to be made affect physical database (how data is stored in terms of physical characteristics such as location, amount of space, and access method).
 - Create physical databases.
 - Optimize/normalize data; standardize terminology (creation of metadata).
 - Develop schemas and data models for the data warehouse
 - Transition existing data stores to data warehouse architectures as appropriate.
 - Test and correct errors, and refine changes to database
 - Review and correct programs, reports, and other SQL interfaces
 - Develop database requirements definitions, functional specifications development, and dictionaries and test plan development
 - Confer with co-workers to determine impact of database changes on other systems and staff cost for making changes to database
 - Review and approve all structural database adds/changes prior to production release.
7. Database Security:
 - Specify user access level for each segment of one or more data items such as insert, replace, retrieve, or delete data
 - Specify which users can access databases and what data can be accessed by user.

8. Business Intelligence/Reporting:

- Lead implementation of full life-cycle data warehouses/data marts
- Gather and prioritize data warehouse requirements in partnership with users
- Architect the report writing and distribution strategy
- Design warehousing approaches and solutions that address business requirements
- Identify opportunities or obstacles to obtaining the data needed by the business
- Communicate data gaps (e.g., missing data or less-than-quality data) along with potential solutions to address the gap management, and work with business to identify suitable alternatives for unavailable business statistics.
- Communicate potential use of analysis and reporting tools and their capabilities to business users
- Design and implement business intelligence functionality using selected tools (Silvon, MS analysis Server)
- Work with business partners to define model changes as needed and evolve models to accommodate future enhancements
- Define validation and balancing procedures to ensure integrity of the data resident in the data warehouse
- Troubleshoot and resolve development and functional issues to meet user requirements.

9. Database Performance Tuning:

- Monitor database performance
- Modify data programs and indexes to increase processing performance
- Design and automate periodic processes and queries for maximum efficiency and performance
- Calculate optimum values for database parameters such as amount of computer memory to be used by database
- Perform capacity planning for data warehouse.

10. User Training:

- Train users on data access methods
- Answer questions related to database and data warehouse usage
- Expand users' understanding, appreciation and utilization of the data warehouse opportunity.

11. Work closely with outside software and hardware providers for the Assessor's office to insure uninterrupted workflow.

12. Maintain accurate records of all hardware and equipment within the Assessor's office and that all assets are in good working order.

13. Must be able to prioritize and respond to unexpected situations, as well as, planned daily activities so that staff within the Assessor's office are using the equipment and software at its highest potential.

14. Perform any other related duties as required or assigned.

QUALIFICATIONS

To perform this job successfully, an individual must be able to perform each essential duty mentioned satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

EDUCATION AND EXPERIENCE

Technical degree required in such disciplines as law, engineering, etc, plus 5 years related experience and/or training, and 5 years related management experience, or equivalent combination of education and experience.

RESPONSIBILITY FOR FUNDS, PROPERTY and EQUIPMENT

Will be responsible for upkeep on all electronic equipment within the Assessor's office either by repairing or outsourcing the repair.

SUPERVISORY RESPONSIBILITIES

None.

COMMUNICATION SKILLS

Ability to effectively communicate information and respond to questions in person-to-person and small group situations with customers, clients, general public and other employees of the organization.

MATHEMATICAL SKILLS

Ability to calculate figures and amounts such as discounts, interest, commissions, proportions, percentages, area, circumference, and volume. Ability to apply concepts such as fractions, ratios, and proportions to practical situations.

CRITICAL THINKING SKILLS

Ability to solve practical problems and deal with a variety of known variables in situations where only limited standardization exists. Ability to interpret a variety of instructions furnished in written, oral, or diagram formats.

SUPERVISION RECEIVED

Under direction where a definite objective is set up and the employee plans and arranges own work, referring only unusual cases to supervisor.

PLANNING

Considerable responsibility with regard to general assignments in planning time, method, manner, and/or sequence of performance of own work, in addition, the work operations of a group of employees, all performing basically the same type of work.

DECISION MAKING

Performs work operations which permit frequent opportunity for decision-making of minor importance and also frequent opportunity for decision-making of major importance, either of which would affect the work operations of small organizational component and the organization's clientele.

MENTAL DEMAND

Intense mental demand. Operations requiring sustained directed thinking to analyze, solve, or plan highly variable, administrative, professional, or technical tasks involving complex problems or mechanisms.

ANALYTICAL ABILITY / PROBLEM SOLVING

Moderately directed. Activities covered by wide-ranging policies and courses of action, and generally directed as to execution and review. High order of analytical, interpretative, and/or constructive thinking in varied situations.

USE OF MACHINES, EQUIPMENT AND/OR COMPUTERS

Computer senior software programming, debug problem detection, database analyst II, network development, and senior project manager.

ACCURACY

Probable errors would normally not be detected in succeeding operations and could possibly affect organization-patron relationship, involve re-work, or additional expenditures in order to properly resolve the error. The possibility of such errors would occur quite frequently in performance of the job. May also cause inaccuracies or incomplete information that would be used in other segments of the organization as a basis for making subsequent decisions, plans, or actions.

PUBLIC CONTACT

Frequent contacts with general public, patrons, or other outside representatives, wherein the manner of handling these contacts has a bearing on the organization's position and operation.

EMPLOYEE CONTACT

Contacts with other departments or offices and also frequently with individuals in middle level positions; consulting on problems which necessitate judgment and tact in presentation to obtain cooperation or approval of action to be taken. Also, important contacts with associates as required in advanced supervisory jobs, plus frequent contact with senior level internal officials.

REQUIRED CERTIFICATES, LICENSES, REGISTRATIONS

DBA Certification

PREFERRED CERTIFICATES, LICENSES, REGISTRATIONS

Not indicated.

SOFTWARE SKILLS REQUIRED

Mastery: Database

Advanced: Programming Languages

Intermediate: Contact Management, Spreadsheet

Basic: Alphanumeric Data Entry, Presentation/PowerPoint, Word Processing/Typing

ADDITIONAL INFORMATION

Programming and project management skills, with a high level of proficiency in the tools used by the company; demonstrate a considerable knowledge of the integration of business systems. Personal computer and AS/400 knowledge.

PHYSICAL ACTIVITIES

The following physical activities described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions and expectations.

While performing the functions of this job, the employee is regularly required to sit, use hands to finger, handle, or feel; frequently required to talk or hear; and occasionally required to stand, walk, reach with hands and arms. The employee must occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision; and color vision.

ENVIRONMENTAL CONDITIONS

The following work environment characteristics described here are representative of those an employee encounters while performing essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The noise level in the work environment is usually moderate.

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