

Alameda County Office of Education

JOB TITLE: Database Administrator (Range 23, CSEA)

JOB SUMMARY:

The Database Administrator is responsible for the design, optimization, and maintenance of ACOE's databases, working with Technology Services administrators and staff and ACOE clients to provide database solutions.

ESSENTIAL DUTIES AND RESPONSIBILITIES

Designs and maintains databases, including but not limited to tables and views; key indices; entity relationship diagrams; import, export, and data cleansing scripts; and backup and maintenance schedules.

Optimizes relational database systems (RDBS) using software tools provided by the database vendor or others tools as appropriate to a particular database.

Designs and implements back-up, restart, and recovery procedures for RDBS files; participates in the design of and periodic testing of recovery plans.

Acts as a subject matter expert on databases and may function as a technical lead on new systems development.

Identifies and makes specific recommendations concerning problem areas and needed improvements, the best approach for implementing requested changes, and explains the basis for choices made when selecting a database structure.

Reviews, evaluates, and identifies disk space requirements for database files.

Prepares and assists in the preparation of written documentation describing the flow of information into, out of, within, and between various database systems.

Identifies, documents, and assesses databases; develops methods for quantifying data integrity, optimization level, and data space requirements.

Develops methods for identifying database failures; schedules and tests disaster recovery plans.

Develops and implements archiving procedures; monitors archiving needs.

Sets up and maintains a variety of processing files and database reports; extracts and submits data to other departments and external agencies.

Writes technical specifications to be used in proposal or quotation requests.

Evaluates opportunities to integrate new applications with existing database systems and recommends solutions that optimize the flow of information within ACOE.

Performs related duties as assigned.

QUALIFICATIONS *To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

Ability To:

Analyze complex informational needs, problems, and procedures of users and to design information systems to meet requirements.
Administer and maintain databases.
Evaluate and monitor database performance and requirements.
Develop solutions to complex technical problems.
Prepare reports.
Provide technical expertise.
Establish and maintain effective working relationships with users, both employees and managers.
Meet schedules and timelines.
Plan and organize work.
Maintain records and prepare reports.
Write clear documentation and procedures.
Read and understand reference and user guide materials.
Communicate effectively orally and in writing.

Knowledge of:

Principles, methods, techniques, procedures, and best practices of developing, analyzing, monitoring and implementing database systems including database design techniques, characteristics, capabilities, operation, and control.
Enterprise grade commercial and open source database server software.
Use of software tools provided by a database vendor or others tools as appropriate to a particular database.
Database table normalization techniques and optimization strategies.
Methods used in database management to organize, test, and assess data.
SQL syntax and the use of command-line SQL statements.
The database server systems currently used by ACOE.

Education and/or Experience:

Bachelor degree in an Information Technology discipline and four (4) years related experience in the design, programming, implementation, analysis, and maintenance of database management systems; or equivalent combination of education and experience.

Desirable: Experience with Microsoft SQL Server 2000/2005 and/or MySQL, MS SQL Server Enterprise Manager, and MS SQL Query Analyzer.

Certificates, Licenses, Registrations:

Valid California driver's license.

Desirable: MSDBA

Language Skills:

Ability to read and interpret documents such as operating and maintenance instructions, and procedure manuals. Ability to write routine reports and correspondence. Ability to speak effectively before groups of customers or employees of organization.

Mathematical Skills:

Advanced technical mathematics sufficient to understand and administer database management systems.

Reasoning Ability:

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

PHYSICAL DEMANDS *The physical demands 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.*

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, or feel. The employee frequently is required to sit and talk or hear. The employee is occasionally required to stand and walk. The employee must occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision, color vision, and ability to adjust focus.

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

While performing the duties of this job, the employee regularly works in inside environmental conditions and regularly works with a video display terminal for prolonged periods. The employee may be required to drive a vehicle in the course of employment, attend evening meetings, travel, and work evenings or weekends. The noise level in the work environment is usually quiet.

Approved by: Personnel Commission
Approved Date: January 15, 2009