Cabrillo College

DATABASE ANALYST/SQL DATA WAREHOUSE PROGRAMMER

DEFINITION
Under general supervision, oversees the implementation of vendor supplied software modules, releases and updates; performs various functions related to database management and administration; designs, implements and maintains data warehouse/reporting environment; and performs related duties as required or assigned.

CLASSIFICATION CHARACTERISTICS
This is a professional level classification with the incumbent competent to perform varied analyst and programming duties in support of the College administrative and academic functions. The work includes Structured Query Language (SQL), Datatel Colleague and Enterprise Resource Planning (ERP) administration, system design, programming, user interface and documentation; and maintenance of the SQL data warehouse/reporting environment. This classification is distinguished from the Information Systems Analyst/Programmer classification in that the latter has primary responsibility for Datatel Colleague.

EXAMPLES OF DUTIES (Illustrative Only)

Database:

- Evaluates and implements new software modules, releases and updates (E)
- Develops program logic and processing steps (E)
- Codes programs in the appropriate language and/or modifies commercial software to meet designated needs; plans and develops test data (E)
- Creates new software and database environments (E)
- Downloads software updates, completes pre-install and post install steps (E)
- Merges custom code with newly released code; documents changes (E)
- Performs SQL database and database management and periodic version upgrades while adhering to best practices (E)
- Monitors and improves database system performance (E)
- Troubleshoots and resolves database, hardware and software related problems (E)
- Develops and maintains database tables, views and cubes; ensures compliance with Data Element Dictionary across systems (E)
- Performs file transfers between mainframe, local and remote systems, confers with users regarding assigned functional program areas (E)
- Establishes and maintains data backup procedures for databases and application files
- Maintains contact with software vendors to keep databases up-to-date with new and/or updated data and application software (E)
- Controls access to software applications and data resources; protects data from unauthorized access (E)
- Performs periodic audits and takes appropriate follow-up action (E)
- Performs related duties as required or assigned
EXAMPLES OF DUTIES (continued)

Data Warehouse/Reporting:

- Designs, implements and maintains data warehouse/report environment such as extracting data, defining reporting tables, building reports and cubes; systems include but not limited to, SQL Server and Datatel Colleague (E)
- Performs Export, Transport and Load (ETL) procedures using Kourier Intergrator, taking data from Colleague Operational Data Store (ODS) to a SQL platform (E)
- Works closely with end users to establish key data points and processes, define business reporting requirements and convert to data models and universes (E)
- Writes secure code that interacts with back end databases (E)
- Designs logical and physical databases and determines how data is stored in terms of physical characteristics (e.g. location, amount of space and access) (E)
- Codes database to allow for optimal performance and functionality; identifies errors in coding; tests and corrects errors and refines changes to databases (E)
- Confers with others to determine impact of database changes on other systems
- Modifies database programs to increase processing performance (E)
- Administers the reporting data store, SQL databases and support Unidata to SQL conversion (E)
- Performs related duties as required or assigned

(E) = designates essential functions

QUALIFICATIONS

Knowledge of:

- Principles and techniques of ERP system software programming, operation and maintenance
- Database concepts, design and processing techniques
- Database administration, maintenance and security
- Principles of systems, program design and implementation
- Computer programming principles, techniques and procedure
- Documentation techniques

Skill in:

- Designing, implementing and maintaining software applications and databases
- Administering and controlling software applications and database access and security
- Working with users to design and implement database tables, elements and standards and creating supporting documentation
- Defining problem areas, collecting and evaluating data and making appropriate recommendations
- Tracing, identifying, and resolving hardware and software malfunctions
- Exercising discretion and sound judgment within established guidelines
- Exercising discretion and safeguarding the confidentiality of information
QUALIFICATIONS (continued)

Skill in: (continued)

- Developing logical procedures and developing tests to validate program design
- Strong organizational and interpersonal skills to complete assignments under pressure of time constraints and competing demands and deadlines
- Understanding and following oral and written directions
- Communicating effectively, both orally and in writing
- Preparing clear and concise program documentation, user procedures, reports of work performed, and other written materials
- Working effectively both independently and as a member of a team
- Establishing and maintaining effective working relationships with those contacted in the course of work

Other requirement: (if applicable)

- Must be willing to work days, evenings and weekends at various college locations

Desirables: (if applicable)

- Experience implementing and using Envision, SQL services and tools, Java/C# and other Colleague programming tools
- Experience with Datatel Web Advisor services and web authoring tools

Education and Experience:

Equivalent to two years of college level coursework with major coursework in computer science, business procedures and accounting, mathematics or a closely related field and three years of increasingly responsible database and/or data warehousing/reporting experience.

Please note: Additional experience as outlined above may be substituted for the education on a year-for-year basis and/or additional education may be substituted for the experience on a year-for-year basis.

Established: February 22, 2012