

**JOB TITLE:** Database Systems Administrator  
**PAY GRADE:** CL 30  
**LAST REVISED:** July 2025

*Job Descriptions/Class Specifications are intended to present a descriptive list of the range of duties performed by employees in the job and are **not** intended to reflect all duties performed within the job.*

Sierra College has a strong commitment to the achievement of equity and inclusion among its faculty, staff, and students and values the rich, diverse backgrounds that make up the campus community. A strong candidate for this position must have the understanding and ability to successfully support individuals with varying backgrounds. This includes persons with disabilities, various gender identities and sexual orientations, as well as individuals from historically underrepresented communities and other groups. Our District is committed to providing strategies for success and proactive student-centered practices and policies focused on eliminating equity gaps to ensure the District provides an inclusive educational and employment environment focused on strategies for success and equitable outcomes for all.

### **SUMMARY DESCRIPTION**

Under general supervision from assigned manager, serves as a technical subject matter expert and coordinates the development, implementation, administration, maintenance, troubleshooting, and support of the District's server platforms, including the District's Enterprise Resource Planning (ERP) system and associated databases, operating systems, applications, integrations, and related software; administers application access and systems security procedures and has primary technical responsibility for protecting ERP systems data against loss or corruption.

### **REPRESENTATIVE DUTIES**

*The following duties are typical for this classification. Incumbents may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address business needs and changing business practices.*

1. Uses automation and batch processing techniques to efficiently support large server networks; designs repeatable build and installation procedures to improve system stability and resilience; uses infrastructure-as-code practices to maintain system configuration versions and manage changes to configuration states; designs and implements custom applications using batch processing tools or appropriate programming languages, such as shell and kernel-level programming.
2. Responsible for development, implementation, administration, maintenance, troubleshooting, and support of District Database Management Systems (DBMS), operating systems, and related software for District servers directly and indirectly related to the ERP system; plans for and supports the processing of upgrades, patches, and major releases for District's database and ERP systems applications; coordinates administration and operation of ERP systems with vendors and users to integrate third-party software into District databases; serves as liaison between users, managers, ITS staff, consultants, and vendors.
3. Serves as a project leader by coordinating and involving staff from multiple organizational units; follows systems development life-cycle techniques, utilizes joint application development processes, and employs project management techniques in coordination with assigned project managers; follows traditional and modern code development workflows.
4. Participates in the development, planning, and implementation of long-range systems goals, objectives, policies, and priorities for assigned programs; recommends and administers policies and procedures related to systems and database administration; researches and participates in the development, evaluation, and selection of systems requirements and information systems.
5. Provides technical leadership and mentoring for appropriate staff; reviews data structures, programs, and documentation for adherence to performance, maintainability, and security standards; provides developer and end-user support for test systems and database development tools and procedures; serves as a technical advisor and resource to District technical staff; serves as the liaison for the database administration and systems security; plans and conducts user training, including preparation of training materials.

6. Defines the scope and objectives for applications, along with constraints and system requirements; analyzes and defines current organizational functions, processes, sources and uses of information, and other data to determine application needs and requirements.
7. Follows enterprise change and release management best practices and terminology.
8. Analyzes and monitors database systems regarding standard and local security policies; works with District staff to formulate and review database security policies and procedures.
9. Reviews and evaluates District computer systems and database software; consults with District technical staff regarding computer software requirements; reviews software release notes and installation documentation.
10. Monitors system and database performance; analyzes performance statistics and modifies system and database operating parameters; coordinates and implements data conversions, integration, and transitions; works with management and the District's change management process to schedule system downtime; restarts system and database, as needed; formulates and implements system and database tuning strategies; develops monitoring systems to provide services and notification procedures for detecting and correcting system failures.
11. Analyzes user business processes and designs solutions to optimize use of systems; documents work using organization and data flow charts or similar tools; designs and produces system specifications and documentation on inputs, outputs, and integrations; develops user and system documentation.
12. Designs, develops, and implements logical and physical database structures; defines and secures efficient connectivity relationships for host and desktop computers and network systems; installs, configures, tests, and implements District host computer operating software.
13. Analyzes and reviews database requirements and designs with District technical staff and implements database designs; reviews software with District technical staff and end users making modifications, as needed; evaluates and recommends third-party software for District computers.
14. Administers application access control and systems security procedures and has primary technical responsibility for protecting ERP systems data against loss or corruption; manages Linux and Oracle accounts and maintain account security and confidential information; implements and monitors backup and recovery processes of core enterprise databases and systems.
15. Serves as the liaison for the database administration and systems security with other divisions and departments; negotiates with tact and resolves sometimes sensitive and/or controversial issues.
16. Participates on District committees or subcommittees.
17. Conducts organizational studies, investigations, and operational studies; recommends modifications to database administration programs, and procedures, as needed.
18. Performs related duties that support the overall objective of the position.

## **QUALIFICATIONS**

*The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.*

### **Knowledge of:**

- Concepts, methodologies, analysis, and design of computer and relational database management systems, including PL/SQL, SQL\*Plus, and Oracle Enterprise Manager.
- Concepts, installation, configuration, tools, operation, and maintenance used for computer and database system software and security, computers and network equipment, Linux operating and email systems, enterprise release management, project management, Public Key Infrastructure (PKI), change management and change control, and data warehouse and business intelligence.
- Virtual server and cloud computing environments, tools, and capabilities, including Apache, Nginx, VMware, Microsoft Internet Information Services (IIS), Amazon Web Services (AWS), and Oracle Cloud Infrastructure (OCI).
- Enterprise Resource Planning (ERP) systems used in a large organization.
- Specialized software packages and applications, including commercial and open-source.

- Computer network design, protocols, and security for Linux OS configuration and troubleshooting.
- Version control systems, including Git and Atlassian Suite.
- Application development workflows, including DevOps and Agile.
- Configuration management systems, including Puppet, Terraform, and Jenkins.
- Advanced shell script programming, including bash, Perl, and Python and general programming languages, including C#, Java, Visual Basic, and C/C++.
- Principles and practices of program development, including object-oriented design, integrated development environments, version control systems, and build tools.
- Architecture, installation, configuration, tuning, and troubleshooting of web application and application Servers.
- Information Technology Service Management best practices (ITIL).
- Federal, state, and local laws, codes, and regulations regarding support of District technology systems, networks, and software, including, but not limited to, the Family Educational Rights and Privacy Act (FERPA) and the Americans with Disabilities Act (ADA).
- Basic mathematical concepts.
- English usage, grammar, spelling, punctuation, and vocabulary, including proofreading and formatting techniques.

**Ability to:**

- Perform technical and operational duties to support onsite and cloud-based database, operating, and computer equipment, systems, and software, including analysis, design, coding, configuration, maintenance, troubleshooting, and operation.
- Participate in the management of a comprehensive database administration program.
- Administer host computer systems and databases.
- Function as project manager for implementation of software application features or subsystems.
- Translate user requirements into computer programs and systems.
- Write program and system documentation.
- Read and interpret technical manuals and other documentation.
- Analyze problems, identify alternative solutions, project consequences of proposed actions, and implement recommendations in support of goals.
- Implement system software and data changes in accordance with security and change control policies.
- Provide back-line support to end users, using work order tracking systems.
- Adapt to changing technologies and learn functionality of new equipment and systems.
- Plan and organize work to meet schedules and changing deadlines.
- Perform basic record keeping functions.
- Utilize office procedures, methods, and equipment, including computers, technology, and applicable software applications sufficiently to perform the duties of the classification, including the District's Banner Enterprise Resource Planning (ERP) system and intermediate to advanced skills with Microsoft Office Suite and related software.
- Maintain confidentiality of information.
- Follow oral and written directions.
- Communicate clearly and concisely, both orally and in writing.
- Provide onboarding support, general work training, guidance, supervision assistance, and direct activities of students or temporary workers.
- Establish and maintain effective working relationships with those contacted in the course of work.
- Coordinate with staff and others to minimize delays or interruptions to District activities.
- Respond to emergencies.
- Work independently and collaboratively.
- Apply District policies and procedures.

**EDUCATION AND EXPERIENCE GUIDELINES**

*Any combination of education and experience that demonstrates the required above knowledge and abilities is qualifying. Examples of ways to obtain the above knowledge and abilities could include, but are not limited to, the following:*

**Education/Training**

- Two years of college with major course work in computer science, information technology, or a related field, supplemented by specialized training in applications programming, enterprise systems management, or systems analysis.
- Industry certifications may substitute for some education.

**Experience**

- Five years of increasingly responsible database and systems administration experience.

**PHYSICAL DEMANDS AND WORKING ENVIRONMENT**

*The conditions herein 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 job functions.*

**Environment:** Work is performed primarily in a standard office setting. Position may be required to work evenings, nights, and weekends.

**Physical:** Primary functions require sufficient physical ability and mobility to work in an office setting; to stand or sit for prolonged periods of time; to occasionally walk, stoop, bend, kneel, crouch, reach, and twist; to lift, carry, push, and/or pull light to moderate amounts of weight; to operate office equipment requiring repetitive hand movement and fine coordination, including use of a computer keyboard; and to verbally communicate to exchange information.

**Vision:** See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents; and to operate assigned equipment.

**Hearing:** Hear in the normal audio range with or without correction.

Board Approved: July 15, 2025