

DATABASE ADMINISTRATOR

DEFINITION

Under general direction, plans, coordinates, and implements activities, operations, and functions in support of the District's database administration systems and servers; analyzes operational procedures and functions as the liaison between system developers and end users to improve the District's overall business operations; coordinates assigned activities with other departments and divisions, outside agencies, and the general public; provides complex professional staff assistance to the Director, Enterprise Application Systems in areas of expertise.

SUPERVISION RECEIVED AND EXERCISED

Receives general direction from the Director, Enterprise Application Systems. Exercises no supervision of staff.

CLASS CHARACTERISTICS

This is a highly specialized class in the IT Department that performs a wide variety of technical duties related to the District's database administration and storage systems. Responsibilities include performing diverse, specialized, and complex work involving significant accountability and decision-making responsibility. The incumbent organizes and oversees day-to-day database administration activities and is responsible for product planning and installation, change control, verifying all system resources as required, backup and recovery planning and execution. Successful performance of the work requires an extensive professional background, as well as, skill in coordinating departmental work with that of other District departments. This class is distinguished from Director, Enterprise Application Systems by the latter's management and supervisory authority in planning, organizing, and directing the full scope of enterprise operations within the department.

EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only)

1. Provides support for the installation, configuration, and maintenance of the Enterprise database software systems, and all interconnected technologies, including payment gateways, report building, document enhancement, digital distribution systems, student degree audit systems, data stores and warehousing systems, and enterprise automation solutions.
2. Plans for and installs database products and upgrades; performs change control; verifies system resources as required; plans and executes backup and recovery.
3. Performs database performance analysis, assists in building interfaces between enterprise databases and end-user query tools.
4. Provides data access permissions; reviews permissions on a regular basis to ensure data security.
5. Develops and documents operational and database standards, scripts, guidelines, and usage procedures; oversees the setup and implementation of IT systems and databases to ensure data integrity and compatibility; enforces standards for use, control, update, maintenance, and for the database environment.
6. Interacts and coordinates with other IT areas, key end users, and hardware; instructs other IT staff on the structure and implementation of computerized systems (data checking, tools reports, and loading procedures) developed for their use; ensures that modifications to IT software are necessary and compatible with the overall design of the database system.
7. Develops and directs database management, systems support, security, and recovery.
8. Monitors, tunes, and optimizes database and application performance.

9. Coordinates and oversees the installation of applications and database system upgrades as well as additions to the data dictionary.
10. Provides guidance on database design, development, maintenance, and integration, including monitoring performance tuning, designing, implementing, and securing the database environment.
11. Recommends selection of database tools, methodologies, and procedures for development of databases.
12. Provides on-call support and disaster recovery support as necessary.
13. Performs improvement and maintenance of databases, including database changes and upgrades.
14. Monitors the server environment, including troubleshooting, performing backup, recovery, and tuning of the database, as well as, system configuration and disk storage management.
15. Resolves database errors and failures, manages system access, audits activities and resource utilization, and generates database objects availability.
16. Stays abreast of current trends and developments in software programs and networking systems as well as any changes in procedures, laws, and regulations pertaining to assigned programs and functions.
17. Learns and applies emerging technologies, as necessary, to perform duties in an efficient, organized, and timely manner.
18. Performs other related duties as assigned.

QUALIFICATIONS

Knowledge of:

1. State-of-the-art information systems as applied to large, complex administrative or educational organizational environments.
2. Higher education Enterprise Resource Planning (ERP) systems, including Ellucian Banner system, and the integrated Portal, web applications, and integrated/interconnected systems.
3. OS-based platforms, including Linux, UNIX, and AIX, and application installation, configuration, and management.
4. Specific (UNIX) procedures/commands related to Relational Database Management System (RDBMS) analysis and programming.
5. RFP and RFI process in evaluating, selecting, and implementing automation systems.
6. Daily functions, including creating records for new items, updating status of items when changes occur, importing records from other systems, and generating statistical reports for managing purposes.
7. Business letter writing and record-keeping principles and procedures.
8. Methods, techniques, and practices of data collection and report writing.
9. Modern office practices, methods, and computer equipment and applications related to the work, including word processing, database, and spreadsheet software.
10. English usage, spelling, vocabulary, grammar, and punctuation.
11. Techniques for providing a high level of customer service by effectively dealing with the public, vendors, students, and District staff, including individuals of various ages, disabilities, socio-economic and ethnic groups.

Skills & Abilities to:

1. Install, configure, test, upgrade, and tune an RDBMS in an ERP system, such as Ellucian Banner, and other interconnected enterprise systems.
2. Diagnose problems, perform remedial actions to correct problems, and/or recommend and determine solutions.
3. Master new technologies quickly.
4. Work effectively as a part of a technical team working on installations, upgrades, patches, and cross-module integration.

5. Conduct complex research projects on a wide variety of information technology and database administration topics, evaluate alternatives, make sound recommendations, and prepare effective technical staff reports.
6. Interpret, explain, and ensure compliance with District policies and procedures.
7. Establish and maintain a variety of filing, record-keeping, and tracking systems.
8. Respond to and effectively prioritize multiple requests for service.
9. Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
10. Use English effectively to communicate in person, over the telephone, and in writing at both technical and functional levels.
11. Understand scope of authority in making independent decisions.
12. Review situations accurately and determine appropriate course of action using judgment according to established policies and procedures.
13. Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Equivalent to graduation from a regionally accredited four-year college or university with major coursework in computer science, management information technology, or a related field, and four (4) years of experience in a large production environment including two (2) years recent experience as an Oracle database administrator. Experience with Banner/Oracle installation, configuration, and integration experience and with Ellucian California Baseline (CALB) software enhancements is preferred.

A Master's degree in Software Engineering or directly related field will qualify incumbents for an increased pay grade.

Licenses and Certifications:

1. The incumbent may periodically be required to travel to a variety of locations. If operating a vehicle, employees must have the ability to secure and maintain a valid California driver's license
2. Possession of an Oracle DBA certificate.

PHYSICAL DEMANDS

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer; to operate a motor vehicle to visit various District and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. This is primarily a sedentary office classification although standing in and walking between work areas is frequently required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Incumbents in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects up to 20 pounds.

ENVIRONMENTAL ELEMENTS

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may interact with staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.