Data Management and Engineering Key Performance Indicators

For the entry-level employee, all tasks are typically done under supervision for much of the first year and then with some independence with verification after the employee has more experience. All tasks are done according to company guidelines.

	Tasks	Key Performance Indicators
Monitor, Install, Configure, Maintain		
T-1	Support maintenance of database management systems software.	Monitoring is performed using criteria that are already identified and agreed upon with design and user groups and are consistent with business requirements. Performance metrics, systems usage and response times are properly monitored, recorded, and reported. Performance deviations are identified and reported for corrective measures. Database management software and other data management software are installed and configured according to plan and specifications. Database management systems are fully operational, users have proper access to data and database is accessible through the network, where applicable. Proper testing is performed and testing methods follow company guidelines. Data management software modifications are tested and applied in a timely manner with minimal disruptions to clients/users and service as directed. Security measures are followed and/or implemented to minimize unauthorized access and addresses security tradeoffs and risks. Users are notified about changes in their security access in accordance with company procedures. Security breaches are accurately identified and communicated effectively to appropriate personnel.
T-2	Assist with monitoring and maintaining databases to ensure optimal performance.	
T-3	Monitor and report the usage of knowledge management assets and resources.	
T-4	Support the installation and configuration of database management systems and software.	
T-5	Access database performance.	
T-6	Modify software programs to improve performance.	
T-7	Implement security measures for computer or information systems.	
T-8	Create databases to store electronic data.	
T-9	Make and test modifications to database structure when needed.	
T-10	Merge old databases into new ones.	
Support Database Operations		
T-11	Assist with constructing access paths to suites of information (e.g., link pages) to facilitate access by end-users.	Support to client/user is delivered effectively and efficiently. Directory replication services are performed efficiently. Data consistency and integration including deduplication, standardization, combining records and database comparison are performed efficiently. Internal and external feedback and user issues are presented clearly and concisely, and user questions about configuration are completely and professionally answered. Access issues are properly addressed, and ease of access is facilitated. Continuous efforts are made to identify and address problems before they become critical. Error, performance and availability metrics are accurately documented and suggestions for improvement are provided. Data management and security operations are effectively supported. Integrity errors are detected, measured, documented and demonstrate a trend of improvement and suggestions for improvement are provided. Any software created is developed using efficient software design processes and is well documented so that it can be understood by other developers. Errors in processes and tools are identified and contributions are made to analysis and resolution. Backups are consistently performed and tested for recovery based on company guidelines.
T-12	Support directory replication services that enable information to replicate automatically from rear servers to forward units via optimized routing.	
T-13	Support information exchanges through publish, subscribe, and alert functions that enable users to send and receive critical information as required.	
T-14	Support the management of compilation, cataloging, caching, distribution, and retrieval of data.	
T-15	Perform backup and recovery of databases to ensure data integrity.	
T-16	Support configuration management, problem management, capacity management, and financial management for databases and data management systems.	
T-17	Support incident management, service-level management, change management, release management, continuity management, and availability management for databases and data management systems.	
T-18	Assist in managing the indexing/cataloging, storage, and access of explicit organizational knowledge (e.g., hard copy documents, digital files).	
T-19	Assist in data mining and data warehousing applications.	
T-20	Update computer database information.	
T-21	Write computer programming code (e.g., Python and R).	
T-22	Support efforts for data consistency and integration including deduplication, standardization, combining records and database comparison.	
Research/Analysis and Recommendations		
T-23	Assist with analysis and plans for anticipated changes in data capacity requirements.	Contributions to the planning process to accommodate future capacity with respect to data and user-growth needs are made. Capacity planning utilizes the appropriate performance metrics. Analysis processes and conclusions are clearly and concisely documented. Customer requirements gathered are complete, accurate and documented in a timely manner. Proper tools and metrics are used to measure user trends. Current and emerging tools and technologies are evaluated. Continuous efforts are made to identify and address problems before they become critical. Error, performance and availability metrics are accurately documented and communicated to supervisors/team.
T-24	Assist with developing an understanding of the needs and requirements of information for end-users.	
T-25	Provide recommendations on data structures and databases that ensure correct and quality production of reports/management information.	
T-26	Provide assistance in the identification of recommendations on new database technologies and architectures.	
T-27	Analyze data to identify trends or relationships among variables.	

Administration		
T-28	Follow data management standards, requirements, and specifications.	Data management systems are monitored to check that applications meet company standards on a continuous basis. Data processes, procedures and environment configuration standards are understood and followed. Computer database information and specifications are clearly and concisely documented. Guidelines for database application development standards are understood and followed.
T-29	Develop database parameters or specifications.	
T-30	Provide input for development of guidelines for system implementation.	