

Information Services (IS) Data Services Consultant/Administrator  
IS Database Administrator - Consultant  
DB2 Database Administrator

Position Summary:

Under broad policy guidance and minimal supervision, this position is considered one of the agency's chief technical experts in this classification. The most advanced level of work, which requires application of the highest level of theoretical and practical knowledge, is applied by this position. For KIDS, a large, multi-organization project within the Department of Children and Families, this position provides guidance and consultation on IS technical issues specific to database administration, including establishing technical database policies, setting priorities, and determining parameters and standards. This position interacts with IS staff within DCF and in other agencies to manage shared data, and interacts with DET database experts to consult on high-level technical database software matters, which requires strong written and oral communication skills and sound organizational skills. This position sets policy and standards for database design and administers the logical models and over 300 database tables and multiple database instances for KIDS. Additional duties of this position include 24-hour on-call support, direction of other KIDS database support staff, consultation with applications staff on logical and physical database design, quality assurance relative to agency standards for new database systems, training and assignment of tasks to other database support staff, implementation and maintenance of database objects and files needed by database applications, problem resolution for database software, and recommendations to management relative to procurement of new database-related software and major upgrades to current software.

Goals and Worker Activities:

- 50% A. Provide advanced technical support for KIDS DB2 database, according to agency and enterprise goals.
- A1. Establish and administer DB2 database policies, procedures, and standards.
  - A2. Recommend DB2 database management tools.
  - A3. Administer KIDS data models, logical data designs, and multiple database instances.
  - A4. Determine and approve DB2 database storage usage and technology.
  - A5. Consult with DET DB2 database staff regarding high-level database management software issues related to KIDS, including installation, settings, problems within the database software, maintenance patches, upgrades, and the pros and cons of using various features of the database software.
  - A6. Keep abreast of DB2 upgrades and features, and decide which features to be employed on KIDS.
  - A7. Establish database access methods, including database security standards, for both internal access within DCF and external access by counties, other agencies, and child support clients.
  - A8. Determine policies and procedures for database backup and recovery.
  - A9. Determine policies and procedures for archiving data.
  - A10. Determine policies and procedures for data conversions.
  - A11. Provide database consulting to IS management.
  - A12. Participate in agency disaster recovery planning and implementation.
  - A13. Determine technical policies, standards and procedures for data interfaces, data sharing and data transfer with partner agencies.
  - A14. Consult with other agencies regarding data sharing and data transfer necessary for the operation of KIDS.

- 25% B. Provide DB2 database operational support for KIDS
- B1. Determine policies and procedures for DB2 database issues that affect the scheduling of KIDS batch jobs.
  - B2. Consult with KIDS schedulers and BITS Computer Platform Services (CPS) staff regarding database issues affecting the KIDS batch schedule, including identifying and eliminating potential database contention.
  - B3. Consult with and provide expert direction to IS programming staff on requested changes and/or additions to DB2 database definitions and multiple database instances, and assign such tasks to other database support staff.
  - B4. Assist other database support staff, customers, and/or programmer/analysts to debug the most complex programs using the database software.
  - B5. In consultation with operational staff and other database support staff, plan and implement database backup and recovery procedures.
  - B6. Provide 24-hour on-call production support.
- 10% C. Provide DB2 database consulting support.
- C1. Consult with and train IS staff on policies and procedures for DB2 database security and access.
  - C2. Provide expert technical direction to programmer/analysts and other database support staff engaged in the design, development and implementation of application systems using the server-based database software.
  - C3. Train and inform staff on the use and function of DB2 database support systems.
  - C4. Serve as a consultant in application design review to verify technical feasibility, appropriate data access methods, and efficient DB2 database performance by the KIDS system.
- 10% D. Ensure optimum utilization of computer resources for the KIDS DB2 database by monitoring the KIDS DB2 database, tuning the KIDS DB2 database, and planning for capacity needs.
- D1. Establish standards and procedures for ongoing monitoring of database resource utilization.
  - D2. Administer ongoing monitoring of resource utilization – to assure the highest level possible of systems availability and performance.
  - D3. Maintain records of tuning changes made and their effect on total resource utilization.
  - D4. Plan for increased capacity needs for multiple KIDS DB2 database instances.
  - D5. Plan for the archiving of DB2 data.
  - D6. In consultation with Computer Platform Services and the KIDS scheduler, monitor the utilization of the KIDS database in production jobstreams to ensure that jobstreams use the KIDS database effectively, that jobstreams complete within the processing window, and that contention for resources is avoided.
- 5% E. Participate in Employee Development Program.
- E1. Attend appropriate training courses, conferences and seminars.
  - E2. Read technical publications to maintain a high level of technical knowledge concerning data processing hardware and software with particular emphasis on database/data communications technology.
  - E3. Participate in activities of professional and technical associations to contribute to the development in the information technology industry and in various agencies of government.

E4. Perform other duties, as assigned by KIDS supervisor.

### **IS Data Services Consultant/Administrator - DBA Knowledge, Skills, and Abilities**

1. Knowledge of programming in the DB2 language. (A, B, C, D)
2. Knowledge of Microsoft Office software or comparable word processing, spreadsheet, and database software. (A, B, C, D)
3. Ability to create and implement DB2 database policies, procedures, and standards. (A1)
4. Ability to investigate and provide technical assessment of database management tools. (A2)
5. Ability to create and update KIDS data models, logical data designs, and multiple DB2 database instances. (A3)
6. Ability to interact with other database staff regarding high-level database issues. (A5)
7. Knowledge of DB2 features (A6)
8. Ability to determine and approve DB2 database storage usage and technology. (A4)
9. Ability to identify and implement database access methods, including database security standards, for both internal and external access. (A7)
10. Advanced skill in writing complex DB2 statements. (A8)
11. Advanced skill to create and implement DB2 database backup and recovery procedures. (A8, B5)
12. Advanced skill creating and implementing processes to archive DB2 data. (A9, B4)
13. Ability to determine policies and procedures for data conversion. (A10)
14. Ability to participate in agency disaster recovery planning and implementation. (A12)
15. Ability to provide technical guidance for data interfaces, data sharing and data transfer with partner agencies. (A11, A13)
16. Advanced skill in analyzing and troubleshooting complex database problems. (A5, B1, B4)
17. Ability to identify and implement procedures for DB2 database issues that affect the batch scheduling. (B1, B2)
18. Ability to provide technical guidance to staff and partner agencies regarding requested database changes and issues. (A14)
19. Knowledge of leadership skills. (B3, B5, C2)
20. Knowledge of programming in the COBOL language. (B, C, D)
21. Knowledge of programming in the JCL language. (B, C, D)
22. Ability to provide database on-call support. (B6)
23. Ability to consult with KIDS schedulers and BITS Computer Platform Services (CPS) staff regarding database issues affecting the KIDS batch schedule, including identifying and eliminating potential database contention. (B2)
24. Ability to provide technical direction to IS staff regarding DB2 database security and access. (C1)
25. Ability to provide technical direction to programmer/analysts and other database support staff engaged in the design, development and implementation of application systems. (C2)
26. Knowledge of IBM DB2 utilities. (B2, C3, C4)
27. Knowledge of CDB DB2 utilities. (C3)
28. Advanced skill in database software tools (A3, C3)
29. Ability to train and inform staff on the use and function of DB2 database supporting software. (B3,C3)
30. Ability to review application design, data access methods and system performance. (C4)
31. Advanced skill in tuning DB2 databases. (D3)
32. Ability to identify and implement standards and procedures for ongoing monitoring of DB2 database resource utilization. (D1, D2, D3)

33. Ability to consult with CPS and the KIDS schedulers; and ability to monitor the utilization of the KIDS database in production jobstreams to ensure that jobstreams use the KIDS database effectively, that jobstreams complete within the processing window, and that contention for resources is avoided. (D6)
34. Advanced skill investigating capacity needs. (D4)
35. Ability to monitor utilization of DB2 databases to assure high level systems availability and performance. (D4, D6)
36. Knowledge of the System Development Life Cycle. (D3)
37. Knowledge of testing methodology. (D3)
38. Excellent mastery of oral and written communications. (A5, A11, A13, B2, B3, B4, C2, C3)
39. Organizational and time management skills. (PS)
40. Ability to work in teams. (A5, A11, A13, B2, B3, B4, C2, C3)