

## **POSITION SUMMARY**

Under the general supervision of the Development, Data and Middleware Supervisor, this position provides advanced-level DB2 database management and support for the smooth and efficient delivery of highly complex, multi-platform mainframe and web-based business applications and systems. DB2 databases are expected to be available 24x7x365 and need to function reliably and securely. Management and support of the DB2 databases includes providing system administration, consulting, technical support and advanced-level data and database coordination between the application development teams and the Division of Enterprise Technology at the Department of Administration. Supported technologies and tools include but are not limited to DB2, Platinum, ChangeMan, Squirrel, SQL, JCL, COBOL, and other emerging tools.

This position performs work related to all phases of the systems development life cycle for database management and data modeling, which includes analyzing and documenting current business processes, planning, requirements elicitation, design, development, testing, implementation, and maintenance. This position is expected to provide a high degree of support for the delivery of high-quality applications and associated end-products through cost-effective and efficient management of the database platform used by ETF's application portfolio. This position coordinates and leads technical teams through the process for troubleshooting, recovering, adjusting and modifying or enhancing automating of database integrations and data management within applications. This position acts as a liaison to provide expertise to technical staff and DET when problems arise with databases and as necessary will develop technical user instructions. This position initiates and effectively communicates with department development and infrastructure staff and other stakeholders; provides training direction for technical staff regarding the database platforms; and consults with technical staff to provide expert, specialized guidance for the use, input, and output of technology systems.

This position provides physical and logical data modeling services to developers for new application development and/or the enhancement or maintenance of applications. This includes the integration of existing applications with modernization efforts. This position is a participating member of operational projects within the Data team and is expected to partner with technology system and business system experts, the Office of Enterprise Initiatives (OEI), and ETF business analysts to lead, plan, and coordinate efforts related to assigned systems and processes, both automated and manual, throughout the department. Additionally, this position will assist with the research and analyzing of data as part of modernization efforts.

## **GOALS AND WORKER ACTIVITIES**

- 45% GOAL A. Planning, coordination, and oversight of ETF's database platform, including monitoring and tuning for performance and efficiency, upgrading, testing, backing up, recovery, etc.
- A1. Provide ongoing monitoring of databases for performance, and tune databases as necessary.
  - A2. Evaluate reorganization, recovery, and restart needs for databases. Maintain table backups to ensure adequate recovery.
  - A3. Coordinate with DOA/DET, ETF and vendors the testing of new releases of database software, performance monitoring tools, utilities, and other database tools.
  - A4. Perform as ETFs technical lead with DOA/DET efforts to upgrade the database platform and patching. Keep current with new releases of database related software and implement new features as appropriate.
  - A5. Ensure effective operation of critical systems by timely – often immediate response to system malfunctions and problems; respond to business users' problems, requests, and plans, documenting the problem and resolution within the ETF Incident and Request systems.

- A6. Provide technical and subsystem-specific consultation and recommendations to technical and vendor staff modernization efforts. Interact with technical support, operations and vendor staff to ensure coordination of changes with project team efforts.
- A7. Provide expert consultation to determine, implement and support the standard database tools in cooperation with agency technical staff, technical architects, and other programmers.
- A8. Perform analysis and troubleshooting of incidents, documenting resolution and root cause within the ETF incident system.
- A9. Investigate, recommend and implement ETF, DET-mandated and vendors database security methods.
- A10. Participate in management and peer group reviews to ensure system quality and the development of tactical and strategic roadmaps.
- A11. Continually improve operations by evaluating processes and automating them where possible including the development of actionable key performance indicators (KPI's), including setting goals and objectives, collecting measures, and calculating metrics.
- A12. Perform custom file maintenance to databases objects as necessary.
- A13. Perform prime-shift and non-prime shift on-call support as directed.

25% GOAL B. Design and creation of logical and physical data modeling to ensure efficient and secure database structures for legacy as well as the integration and modernization of ETF's applications

- B1. Consult with applications developers during analysis phase to make recommendations about database usage and design. Enforce design standards as necessary.
- B2. Provide expertise to complete logical and physical design for data services.
- B3. Provide expert consultation to developers and more junior database administrators regarding data models.
- B4. Evaluate database requirements and create new, or alter existing, database structures.
- B5. Provide leadership, support and design activities for data warehouse and business intelligence platforms
- B6. Provide expertise in determining what and how data entities are stored.
- B7. Provide consultation and implementation services for data conversion.
- B8. Participate in the establishment and administration of data policies, procedures and standards.

20% GOAL C. Provision of research, analysis and reporting with regards to data in legacy systems and the conversion and/or migration of data as part of modernization following ETF and state standards, policies, and best practices

- C1. Perform research and analysis of existing data structures to identify and report on the data they contain. When needed automate the on-going reporting of data analysis.
- C2. Consult with IT staff and business users on data research, analysis, and reporting requirements.
- C3. Facilitate the diagnoses and resolution of complex data problems.
- C4. Analyze alternative methods of meeting business requirements to determine the most feasible and cost beneficial method of meeting the requirements.

- C5. Perform data conversion from existing automated or manual systems to new ones in order to provide continuity of business functions and avoid unnecessary disruption.

10% GOAL D. Participation in training and employee development, performance of special assignments and provision of training and assistance

- D1. Stay up-to-date on database and development processes and modern technologies utilizing web resources, online training, books, internal documents, training sessions and workshops.
- D2. Participate in activities of professional and technical associations to contribute to the development in the IT industry and in various agencies of government.
- D3. Orient new employees to database standards, procedures, policies, and practices.
- D4. Represent management on task forces and committees to respond to state and agency needs, interacting with staff in other agencies as required.
- D5. Carry out special assignments that meet the needs of the agency.
- D6. Prepare special reports or documents as requested.
- D7. Additional duties as assigned.

**Knowledge, Skills, and Abilities**

1. Advanced skill and knowledge of the administration, configuration and maintenance of databases such as DB2, Platinum, SQL Server, SQL, Squirrel, etc.
2. Advanced skill and knowledge of the administration, configuration and maintenance of mainframe applications tools such JCL, Control-M, ChangeMan, etc.
3. Advance knowledge of logical and physical data modeling techniques and methods.
4. Knowledge of data modeling tools such as Erwin, Toad, SQL Developer, etc.
5. Knowledge of the uses and applications of the COBOL programming language.
6. Knowledge of the uses and applications of CICS.
7. Knowledge of the uses and applications of stored procedures.
8. Knowledge of structured application development and design methods.
9. Skill with incident, problem, and change management principals and software such as Ivanti, Cherwell or Jira.
10. Knowledge of application test methodologies and procedures.
11. Advanced ability to work on a team, create favorable experiences, and share information and expertise.
12. Advanced ability to learn and work independently.
13. Strong innovation skills with the ability to analyze and evaluate system modifications to ensure that accurate specifications are met.
14. Advanced ability and willingness to learn about new technologies including the various resources for researching new and emerging technologies and how to utilize them to automate business systems and processes.
15. Skill using project management methodologies, tools, and techniques including project/work plan development and management, preparation of project artifacts such as charter, scope, fiscal, status updates, cost-benefit, and risk analyses.
16. Skill leading complex IT projects using iterative or agile methodologies.
17. Ability to help in the development of strategic and operational project plans.
18. Ability to work and effectively communicate with departmental customers, vendors, business analysts, business users, technical developers, peers, and management.
19. Strong leadership skills with effective time management and prioritization skills.
20. Ability to create and maintain a schedule/roadmap of ETF technology upgrades to help plan for current and upcoming budgets.