POSITION SUMMARY

Under the general supervision of the Chief Data Officer, this position provides advanced-level development, data modeling, and leadership within the Data Management Program. Within the agency's data governance process, this position plays a key role in the development and implementation of agency wide policies, standards and procedures that promote data management as a shareable agency resource to improve data integrity, promote common access, and reduce data redundancy.

This position performs an active role in the analysis of business needs and the design and maintenance of solutions for visualizing data, designing a data warehouse, implementing data management solutions, and promoting data driven decision making. This position provides configuration, development, maintenance, and support for master data management to apply rules to master data which help to determine the "golden record" for that data. This position will also be responsible for data analysis and developing logic to move and transform data to desired target locations and format. Other duties of this position include preparing technical specification documents, development, testing, implementation, mentoring, and ongoing maintenance of data management solutions.

In the data modeling role, this position acts as a liaison between developers, database administrators, and users throughout the Department. This position provides technical expertise for Department staff and data management efforts in logical and conceptual data design activities. The position also establishes standards and promotes effective use of the agency's data modeling tool. This position has leadership responsibilities for assisting multiple, diverse project teams with resources and concepts to accomplish the deliverance of unique and complex solutions. It is also expected to recommend visions and ideas for the future and for the translation of existing needs to new technologies and directions for the Department, in line with our strategic business plan. This position is expected to create, promote, make full use of and follow all applicable ETF and state standards, policies and best practices. This includes but is not limited to the use of a data modeling tool, change management, problem tracking, business rules documentation, data governance policies, metadata management, and project management.

Work assignments are difficult and complex, and the position independently resolves conflicts and problems through the skilled application and practical knowledge of data management principles. Further, this position should work well both as a member of a project team under the direction of the project manager, or as directed to function as the project lead.

GOALS AND ACTIVITIES

30%   Goal A: Provision of leadership and analysis for robust solutions to support data management needs of the agency

    A1.   Develop and maintain a thorough understanding of ETF data sources and provide detailed technical documentation as requested.

    A2.   Analyze data sets, draw conclusions and relationships, and perform data reconciliation.

    A3.   Present recommendations on appropriate system architecture.

    A4.   Lead or participate in the requirements definition and evaluation of data management solutions.

    A5.   Lead or participate in the development and implementation of standards,

guidelines, and best practices for the data management program.

A6.   Design data mappings through Extract, Transform, Load (ETL).

A7.   Lead or participate in the design for managing data management artifacts in a CI/CD solution.

40%   Goal B: Implementation and testing of robust solutions to support data management needs of the agency

B1.   Lead or participate in the implementation, testing, and support of data management solutions.

B2.   Develop reports and perform testing leveraging automation appropriately to ensure high quality deliverables.

B3.   Configure, develop, maintain, and support business rules in the MDM solution.

B4.   Configure, develop, maintain, and support data quality reports in the MDM solution.

B5.   Implement, maintain, and support the data model in the MDM solution.

B6.   Configure, develop, maintain, and support metadata solutions including but not limited to the following: business glossaries, data lineage and impact analysis, metadata ingestion and translation, metadata repositories, etc.

B7.   Build and test data mappings through Extract, Transform, Load (ETL).

B8.   Develop test data and demonstrate validity of ETL logic.

B9.   Support the ETL job schedule and tool set as necessary.

B10.   Lead or participate in the implementation and maintenance of data management artifacts in a CI/CD solution.

20%   Goal C: Leadership of the agency data modeling including research, design, implementation, and support of the agency's logical data models

C1.   Function as an expert for application data modeling including leading the planning and implementation of data models and coordinating the development of changes with other existing and developing systems to ensure integration and compatibility, when applicable.

C2.   Inform, direct, mentor, or train team members and business partners on logical and conceptual data models, data modeling tools, techniques, policies, business-area knowledge, and customer relationship management, as needed.

C3.   Prepare plans, including vendor data model plans, for the creation or modification of logical data models to ensure that project staff and management have a clear understanding of project direction.

C4.   Work closely with agency database administrators in the use of data modeling policies and processes, tools, data model design, performance tuning, and technical support.

C5.   Research and recommend the use of emerging data modeling, data management, metadata management, data warehousing, reporting, and other

data-related technologies.

C6. Prepare status reports for management, including review of vendor status reports, to highlight progress, identify obstacles, and recommend action in meeting project schedules.

C7. Establish a structure and related policies for the effective development and management of logical and conceptual data models with its supporting metadata.

C8. Identify and document the business requirements needed to create logical and conceptual data models using standard business analysis techniques such as interviews, focus groups, or observations.

C9. Serve as a technical liaison between business user and technical staff for data issues, interacting with business users to ensure that the system product will meet requirements.

C10. Design and document logical data models following ETF's data standards and guidelines, and the data governance policies. Evaluate and analyze design solutions proposed by other staff.

C11. Provide advanced-level technical expertise in the design of highly complex aspects of applications in conjunction with application technical architecture and technical support staff to ensure that the design will meet business user requirements while also meeting system integrity and traceability requirements, and meeting objectives for data integration and network usage.

C12. Coordinate the development of logical data models to integrate with other existing and developing systems to ensure compatibility. Review and verify technical feasibility and the integration of systems and software into applications, data lake and technical architecture.

C13. Perform ad-hoc data requests as needed.

C14. Investigate, analyze, and resolve the most complex data problems. Track system problems and their resolution using ETF's request system.

10%   Goal D: Participation in and leadership of DMB activities and projects. Performance of special assignments, consultation, training, and/or support of agency policy and participation in employee development programs.

D1. Carry out special assignments to respond to the needs of the Department.

D2. Prepare special reports, reviews, and recommendations as requested.

D3. Research and evaluate new tools and technologies and make recommendations on potential benefits for technical and/or business user staff.

D4. Promote the introduction of new technologies as appropriate to support agency business goals.

D5. Read books, periodicals, and internal documents to increase knowledge of information technology processing for the organizational environment.

D6. Attend training sessions and workshops to improve data management skills.

D7. Additional duties as assigned.

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Knowledge, Skills, and Abilities

1. Skills to effectively use data modeling tools such as Erwin or comparable tools.

2. Knowledge of business analysis and application design techniques and prototyping.

3. Data analysis skills.

4. Knowledge of XML schema and data models, or comparable.

5. Knowledge of business intelligence systems and concepts.

6. Knowledge of project management methodologies and deliverables.

7. Knowledge and expertise in industry data standards.

8. Skill and ability to perform data conversion tasks.

9. Advanced skill gathering, understanding & documenting user requirements, creating specifications, designing solutions, development, testing, and implementing solutions that ensure requirements are achieved through high quality deliverables.

10. Ability to provide direction, development and mentoring to developers and team members on dashboard development, usability, user experience design and design best practices with modern BI tools such as Tableau.

11. Advance skill using various ETL tools and processes (e.g. SSIS, Alteryx, etc.).

12. Ability to provide development, maintenance, and support for a master data management (MDM) solution (Semarchy).

13. Ability to provide development, maintenance, and support for metadata management solutions.

14. Ability to perform data profiling and data quality reporting.

15. Ability to use CI/CD solutions.

16. Skilled in working with data warehouses as data sources for dashboard development.

17. Strong skills using complex SQL with relational databases.

18. Ability to develop in various programming or scripting languages for analytic purposes (e.g. Python, R, etc.).

19. Knowledge of security and privacy considerations when handling data.

20. Knowledge of federal and state statutes, rules, and standards governing privacy, including the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

21. Knowledge of BI governance including data usage, metadata, data management, data quality, and security.

22. Leadership skills in order to provide mentoring, coaching, collaborating, and team building.

23. Strong effective oral and written communication skills including the ability to communicate business and technical concepts and information effectively to a wide range of diverse audiences.

24. Strong interpersonal skills including the ability to work productively independently, or as a member of a team, with diverse customers, both internally and externally, at various levels and from cross-functional areas.

25. Ability to develop and deliver presentations to both technical and non-technical audiences.

26. Strong ability to develop knowledge and understanding of business needs with the ability to establish/maintain high level of customer trust and confidence.

27. Ability to understand and comply with all ETF and enterprise security standards, policies, processes, and procedures.

28. Knowledge of ETF programs, operations, mission, vision, and strategic initiatives.

29. Excellent organizational skills and ability to prioritize.

30. Effective critical thinking and analytical skills.