Job Code: JCODEL

Role Definition

Designs, develops, and maintains data architecture, data pipelines, and data warehousing systems. Implements ETL processes, data modeling, and database design. Collaborates with cross-functional teams to ensure data accuracy and availability.

Responsibilities

- Administering and testing the reliability of the data systems; monitoring the performance and stability of the systems as the requirements change.
- Configuring and validating the data sources; developing and improvising the integration and analytical tools for efficient data procurement and analysis.
- Creating and managing the architecture of the data platform and data modelling by evaluating the business needs and objectives.
- Utilizing niche tools to view and visualize the generated data to support business intelligence and data-driven solutions; maintaining compliance with SLAs, data governance, and security policies.
- Designs and implements complex data pipelines.
- Develops and maintains data warehousing solutions.
- Collaborates with cross-functional teams to identify and solve data-related problems.
- Ensures data quality and integrity across all systems.

Job Requirements

Education Requirements

Graduate Level Experience

Experience Requirements

7+ Years of Experience Specialized in Skillset

Enterprise Infrastructure Data

Business Function

IT and Operations

Business Unit

- Axos Advisor Services and Axos Clearing - Ops and Tech
- Centers of Excellence, and Consumer IT
- Commercial Operations and Technology
- Consumer IT Product Management
- Fiduciary Operations
- Information Technology
- Securities IT

Job Family Memberships

- Tech Contingent Workers

Possible Cost Centers

- 0000 Default (For all Departments except Commercial Banking & Axos Clearing)
- 5034 - Technology

Position Level

Contractor

Management Position:

Yes

FLSA Status

Non-Exempt

EEOC Job Classification

First/Mid-Level Officials and Managers

NAICS Worker's Comp Code

- 8810

Job Role Type

Specialized

Compliance Code

- Centers of Excellence

IT Hardware Assignment

Laptop Computer

Criteria Assessment Type

- Specialty Knowledge Staff

BGCheck Package:

Below VP Level

Job Function / Family

Technology Contingent Worker Group : Job Family holds roles specific to SoW JCO worker profiles.

Role Classification

Job Band
Team Leadership; Technical Professional
Difficult technical tasks; Implementation experience; Self-sufficiency; Small project responsibility; Technical supervision

Job Focus
Technical
Focus on technical activities that require specialized knowledge

Legend

Low priority   Normal priority   High priority   Not assessable

Foundational

Business, Individual, Management and Leadership competencies for general functions in the organization.

Individual	1	2	3	4	
Analytical Thinking			☐		Extensive Experience High Priority
Communicates Effectively			☐		Extensive Experience High Priority
Technical Excellence			☐		Extensive Experience High Priority

Competency Descriptors

Individual

Analytical Thinking: Knowledge of techniques and tools that promote effective analysis; ability to determine the root cause of organizational problems and create alternative solutions that resolve these problems.

★ **Required level: Extensive Experience (3)**

Required level priority: High
- Seeks discrepancies and inconsistencies in available information; explains variances.
- Organizes and prioritizes the sequence of steps to be taken to remedy the situation.
- Identifies many possible causes for a problem based on prior experience and current research.
- Quantifies the costs, benefits, risks and chances for success before recommending a course of action.
- Approaches a complex problem by breaking it down into its component parts.
- Chooses among a diverse set of analytical tools according to the nature of the situation.

Communicates Effectively: Understanding of effective communication concepts, tools and techniques; ability to effectively transmit, receive, and accurately interpret ideas, information, and needs through the application of appropriate communication behaviors.

★ **Required level: Extensive Experience (3)**

Required level priority: High
- Adapts documents and presentations for the intended audience.
- Communicates well downward, upward, and outward.
- Demonstrates both empathy and assertiveness when communicating a need or defending a position.
- Employs appropriate methods of persuasion when soliciting agreement.
- Maintains focus on the topic at hand.
- Reviews others' writing or presentations and provides feedback and coaching.

Technical Excellence: Knowledge of a given technology and various application methods; ability to develop and provide solutions to significant technical challenges.

★ **Required level: Extensive Experience (3)**

Required level priority: High
- Advises others on the assessment and provision of all technical solutions.
- Engages appropriate subject matter resources to effectively resolve technical issues.
- Mentors others to enhance their technical competence and its application to achieve more effective technical solutions.

- Coaches others in promoting, defining, analyzing, and providing superior technical solutions to business problems.
- Provides effective solutions to moderate technical challenges through strong technical competence, effectively examining implications of events and issues.
- Assumes accountability for personal technical performance and holds others responsible for theirs.

Functional

Technical competencies by functional area for general functions in the organization.

Administration	1	2	3	4	
Data Processing			☐		Extensive Experience High Priority

CRM	1	2	3	4	
Business Intelligence			☐		Extensive Experience High Priority

Information Technology	1	2	3	4	
Database Administration			☐		Extensive Experience High Priority
Workload Automation			☐		Extensive Experience High Priority
Big Data Computing			☐		Extensive Experience High Priority
Big Data Management and Analytics			☐		Extensive Experience High Priority
Data Architecture			☐		Extensive Experience High Priority
Data Governance			☐		Extensive Experience High Priority
Data Mining			☐		Extensive Experience High Priority
Data Movement Tools			☐		Extensive Experience High Priority
Data Warehousing			☐		Extensive Experience High Priority
ETL Process			☐		Extensive Experience High Priority
Information Assurance		☐			Working Knowledge High Priority
Information Management			☐		Extensive Experience High Priority
IT Service Level Agreements		☐			Working Knowledge High Priority
Logical Data Modeling		☐			Working Knowledge Normal Priority
Machine Learning		☐			Working Knowledge High Priority
Object Relational Database Systems (ORDMS)			☐		Extensive Experience High Priority
Prototyping		☐			Working Knowledge Normal Priority
Query and Database Access Tools			☐		Extensive Experience High Priority

Repository Tools			☐		Extensive Experience High Priority
Technology Tools	**1**	**2**	**3**	**4**	
Python			☐		Extensive Experience High Priority
R			☐		Extensive Experience High Priority
SQL			☐		Extensive Experience High Priority

Competency Descriptors

Administration

Data Processing: Knowledge of the methods, tools, and techniques associated with data processing; ability to collect, manipulate and process data to produce useful information in different formats.

★ **Required level: Extensive Experience (3)**

Required level priority: High
- Compares benefits and drawbacks of various data processing techniques.
- Evaluates the quality and usefulness of the processed data.
- Monitors the implementation of data collection processes and informs junior employees of new developments within the field.
- Oversees the use of data processing tools and troubleshoots for common errors.
- Provides insight into managing and processing different types of data.
- Works with a variety of data processing tools and techniques.

CRM

Business Intelligence: Knowledge of business intelligence; ability to utilize business processes and technologies for gathering, storing, analyzing, and providing access to data that helps the organization make better business decisions.

★ **Required level: Extensive Experience (3)**

Required level priority: High
- Organizes and maintains data to be captured in the data warehouse for BI applications.
- Evaluates alternative BI products in terms of their potential value to organization.
- Develops targeted marketing campaigns based on BI analysis.
- Develops processes for transforming aggregate data into useful business information.
- Analyzes BI gained from multiple and diverse environments.
- Evaluates key benefits, drawbacks and rationale for existing BI activities.

Information Technology

Database Administration: Knowledge of database administration systems and procedures; ability to configure, maintain and improve the performance of databases and data stores to ensure its security and effectiveness.

★ **Required level: Extensive Experience (3)**

Required level priority: High
- Advises on the advanced functions and operational techniques of database administration tools and systems.

- Develops and configures tools to enable automation of database administration tasks.
- Evaluates database administration best practices to learn the essentials of database administration.
- Identifies and investigates complex problems and issues in database and related products; assists in taking corrective actions.
- Measures database performance against established benchmarks.
- Monitors database compatibility and stability to meet the current and future needs of the organization.

Workload Automation: Knowledge of tools and techniques of workload automation; ability to schedule and manage tasks related to business processes and transactions.

★ **Required level: Extensive Experience (3)**

Required level priority: High
- Advises on how to effectively automate workload in business functions such as finance and HR.
- Compares and contrasts various workload automation vendors in the marketplace; suggests that vendors customize products for organizational purposes.
- Evaluates workload automation results to ensure all requirements and standards are met.
- Monitors and resolves complex workload automation issues.
- Oversees the implementation of workload automation processes.
- Provides training on workload automation tools and techniques for junior staff.

Big Data Computing: Knowledge of concepts and benefits of big data computing; ability to capture, manipulate, share and interpret large amounts of data from multiple and diverse sources.

★ **Required level: Extensive Experience (3)**

Required level priority: High
- Shares experiences with working with multiple or complex big data applications.
- Consults on evaluating and selecting storage technologies for specific use in big data computing.
- Compares and contrasts frameworks and/or methodologies for handling big data.
- Discusses issues and considerations regarding privacy and collection of personally identifiable information.
- Elaborates on the challenges and opportunities of big data and cloud computing.
- Reviews approaches and tools for optimizing the value of big data infrastructure and initiatives.

Big Data Management and Analytics: Knowledge of basic concepts underlying big data and big data analytics; ability to plan and execute, big data management and analytics.

★ **Required level: Extensive Experience (3)**

Required level priority: High
- Carries out complex tasks associated with big data analytics.
- Uses a variety of software tools to perform advanced analytics with big data.
- Integrates big data technology such as NoSQL databases, Hadoop, and MapReduce.
- Extends database security into big data environments; automates compliance and data security management.
- Identifies correlations that reveal trends and determine conditions.
- Helps define the parameters of big data for the organization; tests different data management options.

Data Architecture: Knowledge of processes, techniques and factors that affect data architecture; ability to design blueprints on how to integrate data resources for business processes and functional support.

★ **Required level: Extensive Experience (3)**

Required level priority: High

- Monitors data architecture design processes (e.g. interface to data), in accordance with existing processes and standards.
- Recommends improvements to data architecture processes to ensure high quality of data architecture deliverables and consistency.
- Coordinates data architecture project resources to effectively achieve business goals.
- Guides junior data architects on considerations in the design of architecture building blocks.
- Anticipates any obstacles and makes plans accordingly to ensure that stakeholder requirements are fully reflected in data architecture outcomes.
- Solves moderately complex issues in target data architecture design processes (e.g. data management process modeling, data entity matrix design).

Data Governance: Knowledge of tools and techniques of data governance; ability to develop and maintain an organization's data in order to meet business requirements.

★ **Required level: Extensive Experience (3)**

Required level priority: High

- Designs an organization's data governance projects.
- Authorizes data users in gathering critical information for an organization.
- Monitors data administrators to ensure that quality standards and safety policies are appropriately adhered to within the organization.
- Advises others on how to use advanced data governance technologies in an organization.
- Supervises the data governance team to solve complex problems.
- Evaluates data governance best practices within the industry to learn its principles and methods.

Data Mining: Knowledge of database systems, statistics and machine learning; ability to extract patterns and information and turn them into interpretable structure for business.

★ **Required level: Extensive Experience (3)**

Required level priority: High

- Utilizes a variety of data mining tools, techniques and applications.
- Expounds on specific data visualization formats to effectively communicate data mining results.
- Participates in benchmarking activities to identify best practices in data mining processes.
- Consults on suitability of neural networks versus OLAP systems for given data mining applications.
- Promotes the value of data mining for business managers.
- Articulates the pros and cons of data mining applications produced by diverse software vendors.

Data Movement Tools: Knowledge of data movement tools; ability to utilize tools to move (including extract, transform and load) an organization's electronic data.

★ **Required level: Extensive Experience (3)**

Required level priority: High

- Educates others on the latest data movement tools used in the organization.
- Advises on advanced techniques for transforming an organization's core data.
- Supervises an organization's data extraction activities.
- Evaluates the advantages and disadvantages of an organization's data movement project.
- Oversees the analysis, design and development of transformation codes.
- Evaluates the effectiveness of data loading programs through professional group discussions.

Data Warehousing: Knowledge of how to collect data from different information sources and distribute them to users; ability to simplify information systems and make sound business decisions.

★ Required level: Extensive Experience (3)

Required level priority: High
- Oversees the effectiveness of information usage from the data repository.
- Advises on how to integrate all forms of information into a central data warehouse.
- Monitors the compliance of security policies for data users.
- Evaluates data warehousing best practices within the industry; applies principles and applications.
- Directs the implementation of an organization's data warehousing project.
- Educates others on features and techniques of new data warehousing technologies.

ETL Process: Knowledge of the extraction, transformation and loading (ETL) process; ability to develop a database through the ETL process.

★ Required level: Extensive Experience (3)

Required level priority: High
- Determines the acceptance and rejection of data from a business/technical perspective.
- Manages a data warehousing project that involves ETL activities.
- Guides others on different methods (e.g. merging, splitting) of converting original data into required forms.
- Monitors data loading in diverse environments, such as replacing old data with new data.
- Supervises employees in complying with ETL policies.
- Evaluates ETL best practices within the industry to learn principles and applications.

Information Assurance: Knowledge of information security; ability to protect information and information systems while ensuring their confidentiality, integrity and availability.

★ Required level: Working Knowledge (2)

Required level priority: High
- Follows guidelines for information in a department that needs to be protected while working under a supervisor's guidance.
- Performs basic steps in the safeguarding of information.
- Selects information assurance tools for the departmental needs.
- Tests the effectiveness of information assurance activities within the department.
- Drafts junior-level countermeasures to handle a variety of information risks.

Information Management: Knowledge of an organization's existing and planned Information Architecture and Information Management (IM) methodology; ability to collect and manage information from different sources, and distribute this information to enhance operational efficiency.

★ Required level: Extensive Experience (3)

Required level priority: High
- Advises on improvement plans for existing and forecasted information architecture.
- Directs the implementation of information processing and operation standards to protect and manage information assets.
- Develops capabilities, features and uses for major IM platforms.
- Consults on information architecture concepts, disciplines and practices.
- Consults on all major information management platforms and practices.

- Coaches others on issues and considerations for managing structured vs. unstructured data.

IT Service Level Agreements: Knowledge of IT Service Level Agreements; ability to design, develop and utilize formal IT Service Level Agreements with internal and external customers.

★ **Required level: Working Knowledge (2)**

Required level priority: High
- Participates in defining, documenting or monitoring IT service level agreements.
- Communicates on the types of support covered and not covered by specific service agreements.
- Participates in service level reviews; cites examples of common problems and issues.
- Follows the processes involved in defining, delivering and implementing service level agreements.
- Practices specific aspects and measurements of a service level agreement.

Logical Data Modeling: Knowledge of concepts associated with basic data modelling; ability to identify, create and document activities, tasks, processes and data requirements for a particular system under design.

★ **Required level: Working Knowledge (2)**

Required level priority: Normal
- Participates in logical data model reviews and walkthroughs.
- Defines and produces logical data models.
- Assists in developing logical data modeling diagrams; validates models with business owners.
- Explains existing logical data models and their associated business processes.
- Researches information needed for building logical data models.

Machine Learning: Knowledge of principles, technologies and algorithms of machine learning; ability to develop, implement and deliver related systems, products and services.

★ **Required level: Working Knowledge (2)**

Required level priority: High
- Utilizes specific tools and techniques to process descriptive and inferential statistics.
- Explores to use machine learning in one own areas to make business improvements.
- Applies specific computing languages and tools in machine learning, such as R and Python.
- Completes specific tasks and initiatives utilizing machine learning technologies, such as search engine optimization.
- Conducts data mining and cleaning initiatives.

Object Relational Database Systems (ORDMS): Knowledge of object relational database systems; ability to use, design, build and manage relational database systems capable of managing object data.

★ **Required level: Extensive Experience (3)**

Required level priority: High
- Works with complex objects, nested tables, and the updating of database schemas.
- Evaluates the practices for selection and implementation of specialized databases (snap-ins).
- Oversees the design, development and upkeep of OR databases.
- Teaches others about interfaces to and considerations for multimedia platforms.
- Consults on the integration of OR and application tools and techniques.
- Advises on common services and interfaces for specific programming languages and API's.

Prototyping: Knowledge of prototyping; ability to implement prototyping disciplines, tools and techniques in evolutionary models within the target environment.

★ **Required level: Working Knowledge (2)**

Required level priority: Normal
- Assesses applications and ensures compliance with the standard features of prototyping.
- Analyzes the benefits and challenges of prototyping throughout the developmental process.
- Participates in the implementation of prototyping screens according to user requirements.
- Applies installed prototyping tools or techniques while adhering to standard processes and procedures.
- Diagnoses and reports minor prototyping problems found while building working models.

Query and Database Access Tools: Knowledge of data management systems; ability to use, support and access facilities for searching, extracting and formatting data for further use.

★ **Required level: Extensive Experience (3)**

Required level priority: High
- Writes, debugs and implements complex queries involving multiple tables or databases.
- Works with aggregate functions, complex joins, groupings, dynamic and embedded SQL's (Structured Query Languages).
- Teaches others about query optimization techniques and facilities.
- Consults on query optimization, interactive queries, testing and verification.
- Evaluates all major database access tools and functions for distributed databases.
- Compares and contrasts the benefits and drawbacks of various SQL products.

Repository Tools: Knowledge of metadata and information repository tools; ability to apply appropriate tools and techniques to manage metadata.

★ **Required level: Extensive Experience (3)**

Required level priority: High
- Consults on using metadata to reduce the impact of change in the business environment.
- Manages metadata repository, including the loading of tools from other sources.
- Defines and models metadata at conceptual, logical and physical levels.
- Uses tracking mechanisms for metrics and reporting.
- Communicates on data standards, principles and procedures to data consumers across the organization.
- Works with a variety of repository tools, techniques, processes and applications.

Technology Tools

Python: Knowledge of concepts and algorithms of Python language; ability to use Python to develop and maintain related applications and systems to meet business goals.

★ **Required level: Extensive Experience (3)**

Required level priority: High
- Works with complex Python programming and maintenance across various platforms.
- Advises on the best practices in designing and coding Python modules for reuse.
- Evaluates and schedules the new Python version upgrades.
- Uses Python to program for complex functions, applications or systems, such as Artificial Intelligence and Deep Learning.
- Monitors the programming and testing processes to ensure efficient and high-quality codes with Python.

- Coaches others on the use of advanced Python tools.

R: Knowledge of concept, functionality, and techniques of R language; ability to utilize R language to perform data and graphic analysis tasks.

★ **Required level: Extensive Experience (3)**

Required level priority: High
- Defines the organizational processes and procedures for text mining.
- Coaches others on statistical model selection appropriately for specific business objectives.
- Creates and implements statistical models in real business environment.
- Instructs on generating data visualization reports with R language.
- Scripts for specific data analytic objectives with R language, such as regression analysis.
- Conducts advanced data analysis tasks with R language, such as big data analytics.

SQL: Knowledge of relational database concepts and Structured Query Language (SQL) functions and features; ability to use SQL to interrogate and process data in a relational database.

★ **Required level: Extensive Experience (3)**

Required level priority: High
- Explains SQL strengths and weaknesses vs. other data retrieval tools.
- Helps others troubleshoot and debug complex or advanced SQL procedures.
- Teaches the nuances of a variety of SQL 'dialects.'
- Teaches others about working with cursors, triggers, indexes and constraints.
- Shows others how to embed complex SQL procedures in their source code.
- Trains others in techniques for working with most SQL features and facilities.

Axos Core Competencies

Contains the Axos Enterprise core competencies that are mandated by CEO to be present on all established job profiles. Includes 4 team member competencies plus 1 additional for managers.

Manager Competency [Required for all Manager Job Profiles]	1	2	3	4	
Team Leadership		☐			Level 2 High Priority

Competency Descriptors

Manager Competency [Required for all Manager Job Profiles]

Team Leadership: Knowledge of leadership practices and processes; ability to use strategies and skills to enlist others in setting, embracing and achieving objectives while having a long-term perspective of the future state of things and how to get there.

★ **Required level: Level 2 (2)**

Required level priority: High
- Demonstrates leadership qualities: intelligence, dominance, persistence, integrity, confidence.
- Employs leadership theories, such as contingency and transactional, and associated techniques.
- Manages own behaviors during interactions, such as feedback giving, to shape workplace events.
- Utilizes an appropriate style of leadership: autocratic, democratic, laissez-faire/free rein, etc.
- Utilizes positive reinforcement to motivate & attain desired behaviors; increases productivity.