CLASS TITLE: DATA ENGINEER, SENIOR

BASIC FUNCTION:

Under the direction of the Manager, Data Systems, designs, develops, implements and maintains data warehousing applications and other data systems for the Santa Clara County Office of Education (SCCOE), districts, schools, and partners; provides technical direction and assistance to the data systems technical team; supports research, data analysis and data driven decision-making, which includes, but is not limited to defining metrics, reports, and analysis.

DISTINGUISHING CHARACTERISTICS:

Incumbents work independently with limited direction in a fast-paced env-reaching impact. Incumbents make recommendations for improvement regarding day-day operations, and assist in guiding, training, and leading the activities of data systems technical team members.

REPRESENTATIVE DUTIES:

The following duties are examples of assignments performed by incumbents in this classification. It is not totally comprehensive list of duties, nor is it restrictive regarding job assignments.

ESSENTIAL DUTIES:

Designs and builds new data models and associated extract, transformation and load (ETL) processes including facilitation of source system data mapping sessions.

Maintains and troubleshoots existing data models and associated ETL processes.

Develops and tests Business Intelligence (BI) solutions such as database queries, views, reports, and dashboards.

Ensures the accuracy, privacy, reliability, security and accessibility of data in the data warehouse; participates in and facilitates the data governance process by enforcing data integrity and data security guidelines and recommending process improvements.

Assists in data conversions, imports, and exports of data within and between internal and external software systems, including data to and from multiple student information systems, agencies, assessments and vendors.

Assists the SCCOE data services management team in building and managing a wide variety of data sets.

Performs detailed data validation and audits for data residing in the data warehouse; performs root cause analysis and troubleshooting for data issues when required; creates and documents criteria for assessing data issues and opportunities.

Anticipates potential problems and develops solutions needed to resolve them; systemically analyze relationships between apparently independent problems and issues; identifies trends as well as isolated events.

Assists in developing and establishing standard procedures and best practices for the data systems technical team; researches and implements new technologies; provides technical direction and assistance to the data systems technical team.

Participates in scheduling and task monitoring to assure timely completion of projects; provides guidance and technical assistance to staff in the resolution of technical and programming problems; maintain timelines for projects to assure compliance with project delivery dates.

Develops and maintains effective working relationships with school districts and vendors; educate and trains district users and others to use the data as an analytical tool, displaying the information in new form and content for the purpose of analysis and exploring options.

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