

# Data Modeling Workshop: Prerequisites and Curriculum



## Prerequisites and Software Requirements

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### **Basic SQL familiarity**

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Heavy emphasis on exposure of JOINS

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### **Introductory Power BI experience**

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Heavy emphasis on importing data and creating basic visualizations in Power BI

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### **Software Requirements**

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**SQL:** Free trial of Snowflake

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**Power BI:** Free Power BI Desktop application

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# Training Syllabus

## Understanding Table Structures

Understanding primary keys, foreign keys, and uniqueness

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Recognizing fact tables vs. dimension tables using real-world examples

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## Relationships & Cardinality

Understanding table relationships (one-to-one, one-to-many, many-to-many)

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Applying correct cardinality concepts

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Understanding filter direction and its impact on analysis

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Common relationship mistakes that lead to incorrect results

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## Reviewing SQL Data for Analytics

Reviewing existing SQL tables to assess data readiness

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Understanding how joins and relationships affect reporting outcomes

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Identifying modeling issues that cause mismatched totals or filtering problems

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## Modeling Data in Power BI

Importing existing SQL tables into Power BI

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Building and managing relationships in the Power BI data model

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Applying correct cardinality and cross-filter direction

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Testing and validating the model using visuals and filters

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**DATA TELLS A STORY. BE THE STORYTELLER**