# Topics Covered

Cover many core SQL skills and techniques required for data analysis from beginner to advanced levels including:

* Where filters and ordering data
* Group by aggregates
* Identifying and dealing with duplicate data
* Common table expressions and subqueries
* Summary statistics
* Exploratory data analysis
* Complex table joins
* Entity relationship diagrams
* SQL reverse engineering
* Data problem solving techniques
* All the window functions
* Case When Statements
* Recursive CTEs
* Cumulative aggregates
* Simple, weighted and exponential moving metrics
* Historical vs Snapshot data analysis techniques
* Temporary tables, database views and materialized views
* Interpret SQL optimizer execution plans
* String transformations including Regular Expressions
* Date and Timestamp manipulation including timezones
* Different types of table indexes
* Impact of indexes on simple table operations
* Loading raw data
* Table schemas and data types