



SQL FOR EXCEL USERS; HALF-DAY WORKSHOP

Lesson 1: SQL and Excel for data analytics

Lesson 2: From Excel tables to SQL
SELECT

Lesson 3: From Excel sort & filter to SQL
WHERE and ORDER BY

Lesson 4: From Excel PivotTables to SQL
aggregation

Lesson 5: From VLOOKUP() to JOIN

Lesson 6: From "That's hard in Excel" to
"That's easy in SQL!"

Learning Objectives

- Student can visually inspect a database with SQLiteStudio
- Student can select some or all fields from various tables of a database
- Student can sort and filter a query's results
- Student can aggregate and summarize query results
- Student can join multiple tables from the same database
- Student can conduct intermediate data analysis

Lesson plan developed by George Mount.
For more resources like this, visit
stringfestanalytics.com

Lesson 1: SQL and Excel for data analytics

Objective: Student can visually inspect a database with SQLiteStudio

Description:

- What is a database and when would you use it?
- Exploring the SQLiteStudio interface

Exercises: Practice exploring a second database

Assets needed: Baseball database

Time: 30 minutes

Lesson 2: From Excel tables to SQL SELECT

Objective: Student select some or all fields from various tables of a database

Description:

- The grammar of SQL
- Querying fields
- Functions
- Aliases

Exercises: Drills

Assets needed: Baseball database

Time: 35 minutes

Lesson 3: From Excel sort & filter to SQL WHERE and ORDER BY

Objective: Student can sort and filter a query's results

Description:

- Sorting and filtering
- How NULLs work
- Limiting a query's results

Exercises: Drills

Assets needed: Baseball database

Time: 30 minutes

Lesson 4: From Excel PivotTable to SQL aggregation

Objective: Student can aggregate and summarize query results

Description:

- Counting records
- Counting and listing distinct records
- Grouping and aggregating records
- Filtering aggregated records
- Using all read clauses

Exercises: Drills

Assets needed: Baseball database

Time: 35 minutes

Lesson 5: From VLOOKUP() to JOIN

Objective: Student can join multiple tables from the same database

Description:

- Relational database modeling
- Left outer joins
- Inner joins
- Set operators

Exercises: Drills

Assets needed: Baseball database

Time: 45 minutes

Lesson 6: From "That's hard in Excel" to "That's easy in SQL!"

Objective: Student can conduct intermediate data analysis

Description:

- Subqueries
- Case operators
- Common table expressions

Exercises: Drills

Assets needed: Baseball database

Time: 45 minutes



Lesson plan developed by George Mount, For more resources like this, visit stringfestanalytics.com