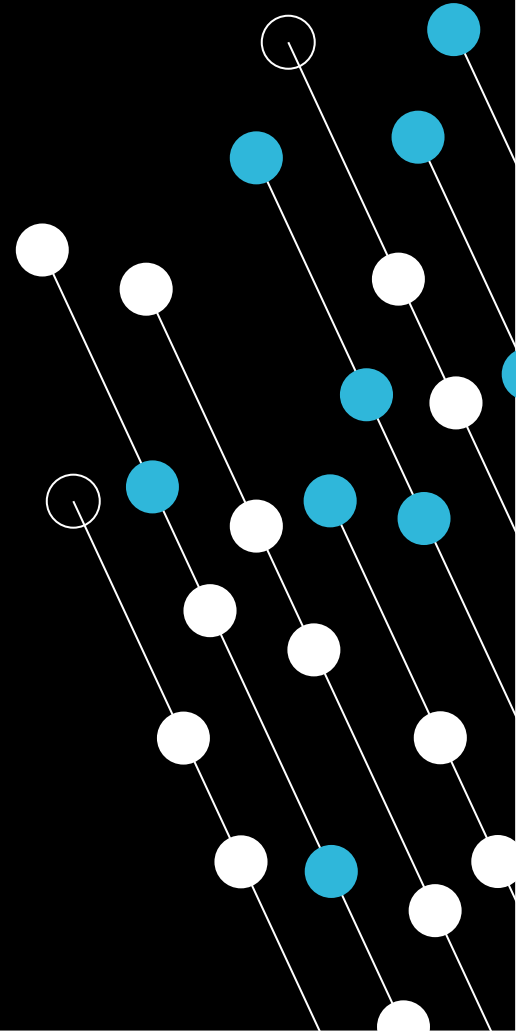# Databases and SQL

Senior Training Specialist

Hilary Brownlow

Objectives

Objectives

Across the week we will cover the following:

Day 1

- Data Modelling – Conceptual, Logical and Physical models
- Database normalisation

Day 2

- Creating deleting and populating database tables
- Retrieving data, filtering and sorting rows
- Common functions

Day 3

- Grouping and aggregation
- Advanced aggregation
- Joins and set operators

Day 4

- Views and window functions

No prior knowledge of databases or SQL is required. The learners are expected to have covered the fundamentals of SQL included in the Discover stage.
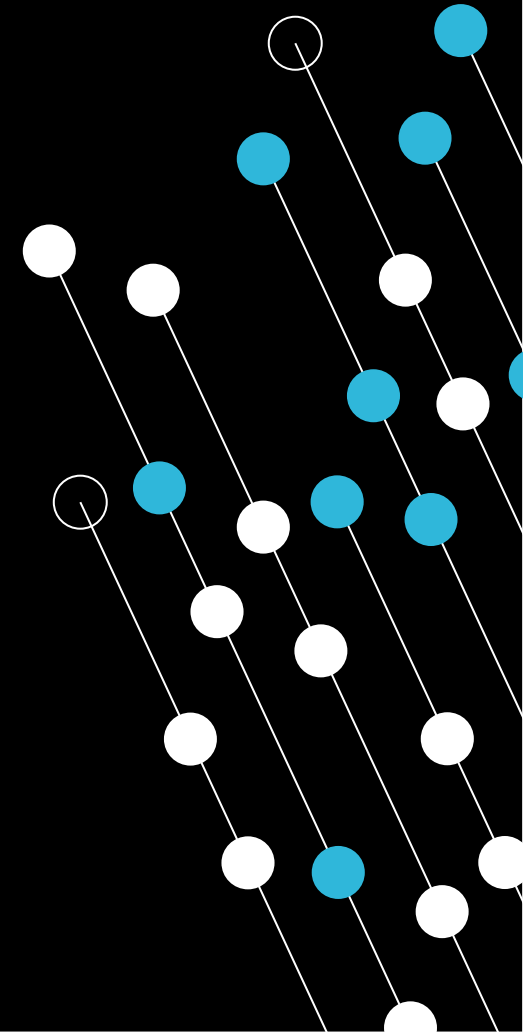
More advanced users can work at their own pace and work on the extension tasks

Knowledge	
K5	the differences between structured and unstructured data
K6	the fundamentals of data structures, database system design, implementation and maintenance
K11	approaches to organisational tools and methods for data analysis
K12	organisational data architecture
Skills	
S4	analyse data sets taking account of different data structures and database designs
S5	assess the impact on user experience and domain context on data analysis activity
S9	apply organisational architecture requirements to data analysis activities
Behaviour	
B4	logical and analytical
B6	resilient - viewing obstacles as challenges and learning from failure.
B7	adaptable to changing contexts within the scope of a project, direction of the organisation or Data Analyst role.

Timings

9:30	Session starts
10:30-10:45	15 minute break
12:00 – 13:00 / 12:30 – 13:30	Lunch break
14:30-14:45	15 minute break
16:00	Session ends
16:00-17:30	Homework

Timings are approx. and subject to change:

QA
Learn. To Change.

Thank You