Normalisation – Lesson overview

Data normalisation is the process of **breaking down complex, unorganised datasets** into a series of related tables that adhere to specific rules known as **normal forms**. By applying **normalisation rules**, data are organised in a structured manner, **reducing data duplication** and **dependency issues**.

In this lesson, we look at how we can apply **database normalisation principles**, known as normal forms, to **design well-structured** and **efficient databases** that promote data integrity and reduce redundancy.

Learning objectives

- Explain the importance of table normalisation in relational database design.

- Understand the three normal forms and their significance.

- Apply normalisation rules to transform unnormalised data into normalised forms.

- Design and implement normalised databases using best practices.

Slide deck	Knowledge questions
Walk-through	Notebook
Exercise	Reference card

Views and normalisation

Database normalisation

25 min   5 min

Data anomalies - 3NF

20 min

Data anomalies - 2NF

20 min

Data anomalies - 1NF

25 min

START

The First Normal Form (1NF)

20 min   5 min   20 min

The Second Normal Form (2NF)

20 min   5 min   20 min

The Third Normal Form (3NF)

20 min   5 min   20 min