



Microsoft Partner



CL_55352

Introduction to SQL Databases

www.ked.com.mx

Por favor no imprimas este documento si no es necesario.





About this course.

This course is aimed at people looking to move into a database professional role or whose job role is expanding to encompass database elements. The course describes fundamental database concepts including database types, database languages, and database designs.

Length.

3 Days.

Audience profile.

The primary audience for this course is people who are moving into a database role, or whose role has expanded to include database technologies.

Prerequisites.

This is a foundation level course and therefore only requires general computer literacy. Experience working from a command prompt.

At course completion.

After completing this course, students will be able to:

- Describe key database concepts in the context of SQL Server
- Describe database languages used in SQL Server
- Describe data modelling techniques
- Describe normalization and denormalization techniques
- Describe relationship types and effects in database design
- Describe the effects of database design on performance
- Describe commonly used database objects.

Exam.

None.

Course outline.

Module 1: Introduction to databases.

This module introduces key database concepts in the context of SQL Server.

- Introduction to relational databases.
- Other types of database.
- Data analysis.
- Database languages.

Lab: Querying SQL Server.

After completing this module, students will be able to:

- Describe what a database is.
- Understand basic relational aspects.
- Describe database languages used in SQL Server.
- Describe data analytics.
- Describe database languages used in SQL Server.

Module 2: Data Modelling.

This module describes data modelling techniques.

- Data modelling.
- ANSI/SPARC database model.
- Entity relationship modelling.

Lab: Entity relationship modelling.

After completing this module, students will be able to:

- Understand the common data modelling techniques.
- Describe the ANSI/SPARC database model.
- Describe entity relationship modelling.

Module 3: Normalization.

This module describes normalization and denormalization techniques.

- Why normalize data?
- Normalization terms.
- Levels of normalization.
- Denormalization.

Lab: Normalizing raw data.

After completing this module, students will be able to:

- Describe normalization benefits and notation.
- Describe important normalization terms.

- Describe the normalization levels.
- Describe the role of denormalization.

Module 4: Relationships.

This module describes relationship types and effects in database design.

- Schema mapping.
- Referential integrity.

Lab: Designing relationships.

After completing this module, students will be able to:

- Describe relationship types.
- Describe the use, types, and effects of referential integrity.

Module 5: Performance.

This module introduces the effects of database design on performance.

- Indexing.
- Query performance.
- Concurrency.

Lab: Query performance.

After completing this module, students will be able to:

- Discuss the performance effects of indexing.
- Describe the performance effects of join and search types.
- Describe the performance effects of concurrency.

Module 6: Database Objects.

This module introduces commonly used database objects.

- Tables.
- Views.
- Stored procedures.
- Other database objects.

Lab: Using SQL Server in a hybrid cloud.

- [Click here to enter text.](#)

After completing this module, students will be able to:

- Describe the use of tables in SQL Server.
- Describe the use of views in SQL Server.
- Describe the use of stored procedures in SQL Server.
- Describe other database objects commonly used in SQL Server.

