Designing Relational Databases

Course code: NRD

Students design optimal structure of relational database, find out right number of entities, relations and atributes, they also define constraints (primary keys, foreign keys, unique, check, not null).

Who is the course for

The course is primary set for users who are responsible for design, administration or querying relational databases.

What we teach you

Students learn design optimal relational database structure and obtain necessary knowledge for administration or

querying relational database.

Required skills

None

Course Outline

Introduction to relation database modeling

Definition of database

Traditional data storage file systems

Relational database management systems

How to do " a right design "

Best Practise in data modeling

Terminology and database design concepts

Basic terms in data models

Identification of model objects

Entity

Attribute

Relation

Relation properties

Primary and foreign key

Advanced relations

E-R diagrams

What is E-R diagram

Benefits of E-R diagrams in design

Creation of E-R Diagram

Normal forms

Benefits of normalized data

Normal forms (1-3 Normal Form)

Denormalization

Physical database model

Transformation of E-R diagram into physical database

Index

Data integrity - why to use

Benefits and the use of CASE software in database design

01.04.2026 12:18:28