

METADATA

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Abstract

The subject of the e-book is the programming and management of relational databases using the SQL programming language. The aim of the e-book is to cover the basics of SQL and to support, both with the presentation of the corresponding theory and with the presentation of solved tasks, a first laboratory course on databases at an academic level. The examples, exercises as well as the assignments are done on the MySQL 5.6 relational database management system, a modern system with a wide response in the open source community. There are 14 chapters in the text and they are structured in such a way so that they can be stand-alone as laboratory exercises. Each chapter has the following structure: 1) theory elements and presentation of corresponding SQL language functions/commands,

2) presentation of a solved laboratory exercise, 3) a short video lecture (~15 minutes), where the basic elements of the laboratory exercise on the MySQL 5.6 system are presented, 4) unsolved exercises which can be used for a laboratory examination. In summary, the chapters of the textbook cover the following. 5.6.6.6 Relational Database Design Theory Elements 3. Theory of Table Creation - Data Definition Language (DDL) 4. Inserting Records and Modifying Tables 5. Basic SQL Query Structure 6. Basic Set Theory Operations 7. The Operation of Concatenation 8. Enriched Queries 9. Aggregations 10. Other Set Theory Operations 11. Updating Data and Overview of Questions 12. Implementation of Stored Procedures / Use of Indexes 13. Dossiers 14. Interface with JAVA Applications.









