Technology
Arts Sciences
TH Köln

Course Manual DB1

Data Base Systems 1

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General information

Long name	Data Base Systems 1
Approving CModule	DB1_BaTIN
Responsible	Prof. Dr. Andreas Behrend Professor Fakultät IME
Valid from	winter semester 2021/22
Level	Bachelor
Semester in the year	winter semester
Duration	Semester
Hours in self-study	60
ECTS	5
Professors	NF Büchel
Requirements	Basic Course Mathematics Basic Course Computer Science
Language	German
Separate final exam	Yes

Literature

G. Vossen: Datenmodelle, Datenbanksprachen und Datenbankmanagementsysteme

A. Kemper, A. Eickler: Datenbanksysteme

C. Türker: SQL 1999 & SQL 2003

Final exam

Details	Examination questions are Entity Relationship Modeling, Mapping of a entity relationship model to a database scheme, SQL, development of a JDBC programe, XML document type defintion
Minimum standard	Programming of simple SQL statements (INSERT, UPDATE, DELETE, SELECT) Programming of a complex SQL application, which is embedded in a java programe
Exam Type	EN Klausur

− Lecture / Exercises

Learning goals

Goal type	Description
Knowledge	General Data Base Model Relational data base system Structured Query Language Embedded SQL in Java (JDBC) Specification and design of data bases Entity Relationship Model Normal forms of a relational data base XML and data bases Document type definition

Expenditure classroom teaching

Type	Attendance (h/Wk.)
Lecture	2
Exercises (whole course)	0
Exercises (shared course)	2
Tutorial (voluntary)	1

Special requirements

none

Accompanying material	Script "Data Bases" (on the WEB-Page and as printed text); a lot of examples of SQL- and JDBC-programes, of ERD, of XML- and DTD-documents, of UML-documents for data base specification on the WEB-Page.
Separate exam	No

− Practical training

Learning goals

Goal type	Description
Skills	Implementation of a data base with several tables, which is specified in a requirement analysis; programming of embedded complex SQL code in JAVA; entity relationship modeling; definition of an DB/XML-interface with a document type definition

Expenditure classroom teaching

Type	Attendance (h/Wk.)
Practical training	1
Tutorial (voluntary)	0

Special requirements

none

Accompanying material	Script "Data Bases" (on the WEB-Page and as printed text); a lot of examples of SQL- and JDBC-programes, of ERD, of XML- and DTD-documents, of UML-documents for data base specification on the WEB-Page.
Separate exam	No

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