Database Design Application Development And Administration Sixth Edition

How SQL JOINs Work 855746bac2 7 Database Design Mistakes to Avoid (With Solutions) - 7 Database Design Mistakes to Avoid (With Solutions) 11 minutes, 29 seconds - Get my **Database Design**, Guides to many different sample databases: ... 855746bac2 Self Join 855746bac2 Continuing with ERD 855746bac2 B-Tree vs Full-Text Indexes 855746bac2 Database Design Course - Learn how to design and plan a database for beginners - Database Design Course - Learn how to design and plan a database for beginners 8 hours, 7 minutes - This **database design**, course will help you understand database concepts and give you a deeper grasp of **database design**,. 855746bac2 OBJECTIVES (CONTD.) That within the information system, the most successful databases are subject to frequent evaluation and revision within a framework known as the Database Life Cycle (DBLC) How to conduct evaluation and revision within the SDLC and DBLC frameworks About database design strategies: top-down vs. bottom-up design and centralized vs. decentralized design 855746bac2 First Normal Form - Primary Keys and Atomic Values 855746bac2 One-to-Many Relationships 855746bac2 Optimization 855746bac2 Mistake 6 - storing optional types of data in different columns 855746bac2 Analyze the company situation General conditions in which company operates, its organizational structure, and its mission Discover what company's operational components ar how they function, and how they interact 855746bac2 Information system facilitates transformation of data into information • Manages both data and information SDLC traces history (life cycle) of an application within the information system DBLC describes history of database within the information system 855746bac2 Denormalization 855746bac2 The Untold Story of BCNF 855746bac2 1NF (First Normal Form of Database Normalization) 855746bac2 Designing One-to-Many Relationships 855746bac2 Simple Key, Composite Key, Compound Key 855746bac2 Foreign Keys in SQL 855746bac2 Third Normal Form - Transitive Dependencies 855746bac2 SQL Filtering \u0026 Aggregation 855746bac2 Intro 855746bac2 Should I use Surrogate Keys or Natural Keys? 855746bac2 Data Types 855746bac2 Superkey and Candidate Key 855746bac2 Weak Entity Types 855746bac2 Mistake 5 - multiple pieces of information in a single field 855746bac2 Surrogate Key and Natural Key 855746bac2 Playback 855746bac2 Mistake 4 - poor or no referential integrity 855746bac2 Entity Relationship Diagrams 855746bac2 Database system objectives must correspond to those envisioned by end users What is proposed system's initial objective? Will system interface with other systems in the company! Will system share data with other systems or users? Scope: extent of design according to operational requirements Boundaries: Limits external to system 855746bac2 What is Database Design 855746bac2 More Database Terms 855746bac2 Relational Databases for Beginners — Tables, Entities, Keys \u0026 SQL 855746bac2 3NF (Third Normal Form of Database Normalization) 855746bac2 CENTRALIZED VS. DECENTRALIZED DESIGN (CONTD.)

All modules are integrated into one model Aggregation problems to be addressed: Synonyms use the different name to describe the same attributes and homonyms use the same attribute name to 855746bac2 Spherical Videos 855746bac2 Search filters 855746bac2 DATA MODEL VERIFICATION Verified against proposed system processes Revision of original design Careful reevaluation of entities Detailed examination of attributes describing entitie Define design's major components as modules: + Module: information system component that handle specific function 855746bac2 Data modeling creates an abstract database structure • Represents real world objects Embodies clear understanding of business and it: functional areas Ensure that all data needed are in model, and that all data in model are needed Requires four steps 855746bac2 Once database has passed evaluation stage, it is considered operational Beginning of operational phase starts process of system evolution Problems not foreseen during testing surface Solutions may include: Load-balancing software to distribute transactions among multiple computers Increasing available cache 855746bac2 Inner Join on 3 Tables 855746bac2 Naming Conventions 855746bac2 Inner Join 855746bac2 Provides for data collection, storage, and retrieval Composed of: • People, hardware, software Database(s), application programs, procedures Systems analysis Process that establishes need for and extent of information system Systems development • Process of creating information system 855746bac2 Parent Tables and Child Tables 855746bac2 Mistake 3 - spaces or quotes in table names 855746bac2 One-to-One Relationships 855746bac2 Access Control, Hashing \u0026 Encryption 855746bac2 Data Integrity 855746bac2 Intro 855746bac2 Designing Many-to-Many Relationships 855746bac2 Many-to-Many Relationships 855746bac2 Keyboard shortcuts 855746bac2 Intro 855746bac2 ENTITY RELATIONSHIP MODELING AND NORMALIZATION Designer enforces standards in design documentation Use of diagrams and symbols, documentation writing style, layout, other conventions Business rules must be incorporated into conceptual model ER model is a communications tool as well as design blueprint 855746bac2 Many-to-Many Relationships 855746bac2 Data integrity 855746bac2 SQL Date and Time Types Explained 855746bac2 Don't Use the Wrong SQL String Type 855746bac2 Database Tutorial for Beginners - Database Tutorial for Beginners 5 minutes, 32 seconds - This **database**, tutorial will help beginners understand the basics of **database management**, systems. We use helpful analogies to ... 855746bac2 Outer Join Across 3 Tables 855746bac2 Foreign Key Constraints - ON DELETE \u0026 ON UPDATE 855746bac2 VALIDATE THE LOGICAL MODEL AGAINST USER REQUIREMENTS Final step in the logical design process Validate all logical model definitions against all end-user data, transaction, and security requirements 855746bac2 Process of selecting data storage and data access characteristics of database Storage characteristics are function of: Device types supported by hardware Type of data access methods supported by system 855746bac2 Right Outer Join 855746bac2 Cardinality 855746bac2 Foreign Keys 855746bac2 Sample Application 855746bac2 Connecting Entities in an ER Diagram 855746bac2 One-to-Many Relationships 855746bac2 Primary keys 855746bac2 Six-Step Relational Database Design™ - Six-Step Relational Database Design™ 3 minutes, 57 seconds - http://fidelcaptain.com/books/**six**,-step.html This book is dedicated to structuring and simplifying the **database design**, process, ... 855746bac2 Creating Relations 855746bac2 From Real-World Ideas to Tables 855746bac2 MAP THE CONCEPTUAL MODEL TO THE LOGICAL MODEL Map the conceptual model to the chosen database constructs Five mapping steps involved: Strong entities 855746bac2 Database Systems: A Practical Approach to Design, Implementation, and Management (6th Edition) - Database Systems: A Practical

Approach to Design, Implementation, and Management (6th Edition) 32 seconds - http://j.mp/1WWjj8T. 855746bac2 Designing a Database 855746bac2 The FLOAT Mistake That Crashed a Stock Exchange 855746bac2 Entity Relationship Diagram 855746bac2 Modality 855746bac2 Example 855746bac2 Second Normal Form - Partial Keys and Functional Dependencies 855746bac2 Relational Database Design – Full Course - Relational Database Design – Full Course 5 hours, 54 minutes - Learn relational **database design**, from the ground up in this comprehensive course. This 8-week curriculum covers SQL ... 855746bac2 Alias 855746bac2 Foreign Key 855746bac2 DATA MODEL VERIFICATION Verified against proposed system processes Revision of original design Careful reevaluation of entities Detailed examination of attributes describing entitie Define design's major components as modules: - Module: information system component that handle specific function 855746bac2 One-to-One Relationships 855746bac2 NOT NULL Foreign Key 855746bac2 Conceptual Schema Physical Schema 855746bac2 Introduction to Entity Relationship Modeling 855746bac2 Idea and Requirements 855746bac2 MAINTENANCE Three types of maintenance activity 855746bac2 Translation requires the definition of the attribute domains and appropriate constraints All defined constraints must be supported by the logical data model Special attention should be place at this stage to ensure security is enforced May have to consider security restrictions at multiple locations 855746bac2 Six-Step Relational Database Design™ - Six-Step Relational Database Design™ 8 minutes, 36 seconds - http://fidelcaptain.com/books/**six**,-step.html This is a summary of step 1 to step 5 of the **six**, step relational **database design**, process ... 855746bac2 Database Terms 855746bac2 What is a Database? 855746bac2 Strong vs Weak Entities 855746bac2 Summary 855746bac2 Table design 855746bac2 2NF (Second Normal Form of Database Normalization) 855746bac2 MAINTENANCE AND EVOLUTION Required periodic maintenance: Preventive maintenance (backup) Corrective maintenance (recovery) - Adaptive maintenance 855746bac2 Database Design 855746bac2 Introduction to SQL 855746bac2 DATA ANALYSIS AND REQUIREMENTS Discover data element characteristics Obtains characteristics from different sources Requires thorough understanding of the company's data types and their extent and uses Take into account business rules Derived from description of operations 855746bac2 Designer completes design of system's processes Includes all necessary technical specifications Steps laid out for conversion from old to new system Training principles and methodologies are also planned Submitted for management approval 855746bac2 Other Constraints: NOT NULL, DEFAULT, and CHECK 855746bac2 How to learn SQL on your own 855746bac2 PLANNING General overview of company and objectives Assessment of flow-and-extent requirements Should the existing system be continued? Should the existing system be modified Should the existing system be replaced? Study and evaluate alternate solutions Technical aspects of hardware and software requirements System cost Operational cost 855746bac2 Continuing with Relations 855746bac2 Relationships 855746bac2 Intro 855746bac2 Introduction to Database Normalization 855746bac2 What is Database Design? 855746bac2 Mistake 2 - storing redundant data 855746bac2 SUMMARY (CONTD.) Database design and implementation process moves through series of well-defined stages Conceptual design subject to several variations: Top-down vs. bottom-up Centralized vs. decentralized 855746bac2 RDBMS 855746bac2 Overview of the Six-Step Database Design Video Series - Overview of the Six-Step Database Design Video Series 2 minutes, 47 seconds - Take the complete course on **Six**,-Step Relational **Database Design**, here: https://www.udemy.com/sixstepdatabasedesign/? 855746bac2 Database Design Goals 855746bac2 Look up Table 855746bac2 3.6 -

Introduction to Databases - Designing a Database - 3.6 - Introduction to Databases - Designing a Database 9 minutes, 58 seconds - We cover best practices for designing **databases**, including the three normal forms. 0:00 Designing a **Database**, 0:39 Table **design**, ... 855746bac2 Designing One-to-One Relationships 855746bac2 Conceptual Design 855746bac2 Inner Join on 3 Tables (Example) 855746bac2 Foreign Key Constraints 855746bac2 SQL Table Commands 855746bac2 Atomic Values 855746bac2 JOIN with NOT NULL Columns 855746bac2 CHAPTER 6 - DATABASE DESIGN - CHAPTER 6 - DATABASE DESIGN 53 minutes 855746bac2 DBMS SOFTWARE SELECTION Critical to information system's smooth operation Common factors affecting purchasing decisions 855746bac2 Primary Key 855746bac2 Primary Key Index 855746bac2 What is a Relational Database? 855746bac2 Subtitles and closed captions 855746bac2 Database Design 6 - What is Database Design? - Database Design 6 - What is Database Design? 13 minutes, 30 seconds - Start your software dev career - https://calcur.tech/dev-fundamentals FREE Courses (100+ hours) ... 855746bac2 THE DATABASE LIFE CYCLE DBLC DBLC describes history of database within the information system Six phases: Database initial study 855746bac2 Many-to-Many Relationships 855746bac2 ... parallel with **applications programming Database**, tools ... 855746bac2 Summary of Relationships 855746bac2 Introduction to Keys 855746bac2 Introduction to Outer Joins 855746bac2 Relational Database Design and the Six-Step Process - Relational Database Design and the Six-Step Process 6 minutes, 26 seconds - Take the complete course on **Six**,-Step Relational **Database Design**, here: https://www.udemy.com/sixstepdatabasedesign/? 855746bac2 Mistake 7 - using the wrong data types and sizes 855746bac2 DEFINE DATA STORAGE ORGANIZATION Designer must determine several attributes 855746bac2 Introduction to Joins 855746bac2 ... system **Database design**, and **application development**, ... 855746bac2 Entity Diagram Symbols 855746bac2 DETERMINE PERFORMANCE MEASURE Performance can be affected by characteristics: Storage media Seek time Sector and block (page) size And more Fine tuning the DBMS and queries to ensure that they will meet end-user performance requirements 855746bac2 Soft deletes 855746bac2 Database Design (7 Phases Explained) - Database Design (7 Phases Explained) 7 minutes, 31 seconds - Learn how to **design**, a **database**, the right way by following seven phases that professionals use. We'll cover requirement, physical ... 855746bac2 CENTRALIZED VS. DECENTRALIZED DESIGN Centralized design When data component is composed of small number objects and procedures 855746bac2 LOGICAL DESIGN Map conceptual design to specific data model Still independent of physical-level details Requires all objects be mapped to specific constructs used by selected database software Definition of attribute domains, design of required tables, access restriction formats • Tables must correspond to entities in conceptual desi Translates software independent conceptual model into software-dependent model 855746bac2 Define problems and constraints Formal and informal information sources Finding precise answers is important Accurate problem definition does not always yield a solution 855746bac2 How to Design Your First Database - How to Design Your First Database 6 minutes, 56 seconds - See this entire course on the Intro to **Databases**, playlist. https://cbt.gg/2wh3UuW Attention to detail is key to designing effective ... 855746bac2 Indexes (Clustered, Nonclustered, Composite Index) 855746bac2 Database Design Process - Database Design Process 11 minutes, 20 seconds - DBMS: **Database Design**, Process Topics discussed: 1. Overview of the **database design**, process a. Requirements Collection ... 855746bac2 THE DATABASE INITIAL STUDY Overall purpose: Analyze company situation Define problems and constraints Define

objectives Define scope and boundaries Interactive and iterative processes required to complete first phase of DBLC successfully 855746bac2 DISTRIBUTED DATABASE DESIGN Portions of database may reside in different physical locations Database fragment: subset of a database stored at a glven location Processes accessing the database vary from one location to another Designer must also develop data distribution and allocation strategies 855746bac2 Primary Key vs Unique Constraints 855746bac2 From Idea to Production-Ready Database Design (No More Mistakes!) - From Idea to Production-Ready Database Design (No More Mistakes!) 22 minutes - Your **database**, is probably one of the most essential parts of your **application**,, as it stores all of your **data**, at the end of the day. 855746bac2 Primary Key, Candidate Key, and Super Key 855746bac2 Introduction 855746bac2 Mistake 1 - business field as primary key 855746bac2 Database Design Lifecycle 855746bac2 Separate Tables 855746bac2 Review and Key Points....HA GET IT? KEY points! 855746bac2 Primary Key and Alternate Key 855746bac2 Introduction 855746bac2 Normalization 855746bac2 Naming conventions 855746bac2 General 855746bac2