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| Nota di contenuto       | Front Cover; Data Architecture; Copyright Page; Contents; Preface; SECTION 1 THE PRINCIPLES; Chapter 1 Understanding Architectural Principles; Defining Architecture; Design Problems; Patterns and Pattern Usage; Concepts for Pattern Usage; Information Architecture; Structure Works!; Problems in Architecture; Architectural Solutions; The "Form Follows Function" Concept; Guideline: Composition and Environment; Guideline: Evolution; Guideline: Current and Future; Data Policies (Governance), the Foundation Building Codes; Data Policy Principles Chapter 2 Enterprise Architecture Frameworks and MethodologiesArchitecture Frameworks; Brief History of Enterprise Architecture; The Zachman Framework for Enterprise Architecture; The Open Group Architecture Framework; The Federal Enterprise Architecture; Conclusions; Enterprise Data Architectures; Enterprise Models; The Enterprise Data Model; The Importance of the Enterprise Data Model; Object Concepts: Types and Structures Within Databases; Inheritance; Object Life Cycles; Relationships and Collections; Object Frameworks; Object Framework Programming; Pattern-Based Frameworks<br>Architecture Patterns in UseU.S. Treasury Architecture Development |

Guidance; TADG Pattern Content; TADG Architecture Patterns; IBM Patterns for e-Business; Enterprise Data Model Implementation Methods; Chapter 3 Enterprise-Level Data Architecture Practices; Enterprise-Level Architectures; System Architectures; Enterprise Data Architectures; Enterprise Technology Architectures; Enterprise Architecture Terminology-Business Terms; The Enterprise Model; The Enterprise Data Architecture from a Development Perspective; Subject Area Drivers; Naming and Object Standards; Data Sharing Data Dictionary-Metadata Repository Domain Constraints in Corporate and Non-Corporate Data; Organizational Control Components; Data Administration; Database Administration; Setting Up a Database Administration Group; Repository Management Areas and Model Management; Chapter 4 Understanding Development Methodologies; Design Methods; Why Do We Need Development Methodologies?; The Beginnings; Structured Methods; Structured Programming; Structured Design; Structured Analysis; Still Having Problems; Requirements Definitions; Problems with Structured Approaches Personal Computers and the Age of Tools Engineering Concepts Applied; Other Principles Utilized; The Birth of Information Engineering; Information Engineering as a Design Methodology; The Synergy of Tools and Information Engineering; Problems with Information Engineering; Implementing the Best of IE while Minimizing Expense; SECTION 2 THE PROBLEM; Chapter 5 Business Evolution; The Problem of Business Evolution; Expansion and Function Separation; Separate Function Communication; Manual Data Redundancy; Data Planning and Process Planning; Corporate Architecture; Using Nolan's Stages of Growth Problems with Older Organizations

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## Sommario/riassunto

Data is an expensive and expansive asset. Information capture has forced storage capacity from megabytes to terabytes, exabytes and, pretty soon, zetabytes of data. So the need for accessible storage space for this data is great. To make this huge amount of data usable and relevant, it needs to be organized effectively. Database Base Management Systems, such as Oracle, IBM's DB2, and Microsoft SqlServer are used often, but these are being enhanced continuously and auxiliary tools are being developed every week; there needs to be a fundamental starting point for it all. That starting point is

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