Class Diagram On Hospital Management System

This book presents the analysis, design, documentation, and quality of software solutions based on the OMG UML v2.5. Notably it covers 14 different modelling constructs including use case diagrams, activity diagrams, business-level class diagrams, corresponding interaction diagrams and state machine diagrams. It presents the use of UML in creating a Model of the Problem Space (MOPS), Model of the Solution Space (MOSS) and Model of the Architectural Space (MOAS). The book touches important areas of contemporary software engineering ranging from how a software engineer needs to invariably work in an Agile development environment through to the techniques to model a Cloud-based solution. Software engineering requires specialized knowledge of a broad spectrum of topics, including the construction of software and the platforms, applications, and environments in which the software operates as well as an understanding of the people who build and use the software. Offering an authoritative perspective, the two volumes of the Encyclopedia of Software Engineering cover the entire multidisciplinary scope of this important field. More than 200 expert contributors and reviewers from industry and academia across 21 countries provide easy-to-read entries that cover software requirements, design, construction, testing, maintenance, configuration management, quality control, and software engineering management tools and methods. Editor Phillip A. Laplante uses the most universally recognized definition of the areas of relevance to software engineering, the Software Engineering Body of Knowledge (SWEBOK®), as a template for organizing the material. Also available in an electronic format, this encyclopedia supplies software engineering students, IT professionals, researchers, managers, and scholars with unrivaled coverage of the topics that encompass this ever-changing field. Also Available Online This Taylor & Francis encyclopedia is also available through online subscription, offering a variety of extra benefits for researchers, students, and librarians, including: Citation tracking and alerts Active reference linking Saved searches and marked lists HTML and PDF format options Contact Taylor and Francis for more information or to inquire about subscription options and print/online combination packages. US: (Tel) 1.888.318.2367; (E-mail) e-reference@taylorandfrancis.com International: (Tel) +44 (0) 20 7017 6062; (E-mail) online.sales@tandf.co.uk This book contains best selected research papers presented at ICTCS 2021: Sixth International Conference on Information and Communication Technology for Competitive Strategies. The conference will be held at Jaipur, Rajasthan, India, during December 17–18, 2021. The book covers state-of-the-art as well as emerging topics pertaining to ICT and effective strategies for its implementation for engineering and managerial applications. This book contains papers mainly focused on ICT for computation, algorithms and data analytics, and IT security. The book is presented in two volumes. A modern computer program, such as the one that controls a rocket's journey to moon, is like a medieval cathedral—vast, complex, layered with circuits and mazes. To write such a program, which probably runs into a hundred thousand lines or more, knowledge of an object-oriented language like Java or C++ is not enough. Unified Modelling Language (UML), elaborated in detail in this book, is a methodology that assists in the design of software systems. The first task in the making of a software product is to gather requirements from the client. This well-organized and clearly presented text develops a formal method to write down these requirements as Use Cases in UML. Besides, it also develops the concepts of static and dynamic modelling and the Unified Process that suggests incremental and iterative development of software, taking client feedback at every step. The concept of Design Patterns which provide solutions to problems that occur repeatedly during software development is discussed in detail in the concluding chapters. Two appendices provide solutions to two real-life problems. Case Studies, mapping of examples into Java code that are executable on computers, summary and Review Questions at the end of every chapter make the book reader friendly. The book will prove extremely useful to undergraduate and postgraduate students of Computer Science and Engineering, Information Technology, and Master of Computer Applications (MCA). It will also benefit professionals who wish to sharpen their programming skills using UML. Pub. in the Interest of Executives in Every Department of Hospital Work ... Key Topics in Healthcare Management 21st International Conference on Conceptual Modeling Tampere, Finland, October 7–11, 2002 Proceedings Object-Oriented Analysis and Design Using UML Strategic Information Management in Hospitals Architecting with RM-ODP

This book teaches most of the basic Database management system theories in an easy-to-follow style with best ERD and query implementations in ORACLE using SQL. A variety of examples make learning these Concepts with SQL both fun and practical. This book is organized in such manner that even new comer can study this subject easy, crisp and readable. Systematic approach throughout the book Various Database Management System basics are explained without assuming previous experience from readers. Easy to practice DBMS queries and scripts in SQL implementation are demonstrated in Oracle 9i. Simple language has been adopted to make the topics easy and clear to the readers. As the reader of this book, you are our most important critic and commentator. I value your opinion and want to know what I am doing right, what I can do better, what areas you'd like to see me publish in, and any other words of wisdom you're willing to pass my way.

Businesses need to adapt constantly, but are often held back by static IT systems. The 'Riva approach to Business Process Management' is a way of analysing the mass of concurrent, collaborative activity that goes on in an organisation, providing a solid basis for developing flexible IT systems that support a business.

What are the possibilities for process mining in hospitals? In this book the authors provide an answer to this question by presenting a healthcare reference model that outlines all the different classes of data that are potentially available for process mining in healthcare and the relationships between them. Subsequently, based on this reference model, they explain the application opportunities for process mining in this domain and discuss the various kinds of analyses that can be performed. They focus on organizational healthcare processes rather than medical treatment processes. The combination of event data and process mining techniques allows them to analyze the operational processes within a hospital based on facts, thus providing a solid basis for managing and improving processes within hospitals. To this end, they also explicitly elaborate on data quality issues that are relevant for the data aspects of the healthcare reference model. This book mainly targets advanced professionals involved in areas related to business process management, business intelligence, data mining, and business process redesign for healthcare systems as well as graduate students specializing in healthcare information systems and process analysis.

Many books on Database Management Systems (DBMS) are available in the market, they are incomplete very formal and dry. My attempt is to make DBMS very simple so that a student feels as if the teacher is sitting behind him and guiding him. This text is bolstered with many examples and Case Studies. In this book, the experiments are also included which are to be performed in DBMS lab. Every effort has been made to alleviate the treatment of the book for easy flow of understanding of the students as well as the professors alike. This textbook of DBMS for all graduate and post-graduate programmes of Delhi University, GGSIPU, Rajiv Gandhi Technical University, UPTU, WBTU, BPUT, PTU and so on. The salient features of this book are: - 1. Multiple Choice Questions 2. Conceptual Short Questions 3. Important Points are highlighted / Bold faced. 4. Very lucid and simplified approach 5.Bolstered with numerous examples and CASE Studies 6. Experiments based on SQL incorporated. 7. DBMS Projects added Question Papers of various universities are also included.

Maximizing Healthcare Delivery and Management through Technology Integration

Security Compliance in Model-driven Development of Software Systems in Presence of Long-Term Evolution and Variants

eBook: Object-Oriented Systems Analysis 4e

20th International Conference, BPMDS 2019, 24th International Conference, EMMSAD 2019, Held at CAiSE 2019, Rome, Italy, June 3–4, 2019, Proceedings

18th International Conference, ICOST 2020, Hammamet, Tunisia, June 24-26, 2020, Proceedings

The Impact of Digital Technologies on Public Health in Developed and Developing Countries

Asia Pacific Business Process Management

Biomedical informatics is becoming increasingly important as healthcare organizations worldwide implement biomedical informatics applications as part of their continued effort to improve the effectiveness of patient care and the efficiency of service delivery. This book presents the full papers delivered at the 2013 International Conference on Informatics, Management and Technology in Healthcare (ICIMTH 2013), held in Athens, Greece, in July 2013. The scope of biomedical informatics is very broad, including a number of technologies such as imaging, sensors, biomedical equipment and even organ transplant technology. The 90 papers included here examine research and applications outcomes - from cell to population - in these diverse fields, and because management and organizational issues play an important role in the implementation phase of biomedical informatics applications, these topics are also covered as an integral part of the theme. The book will be of interest to all those whose work involves the development and use of biomedical informatics applications.

eBook: Object-Oriented Systems Analysis 4e

Readers gain a solid foundation in database design and implementation with the practical and easy-to-understand approach in DATABASE SYSTEMS: DESIGN, IMPLEMENTATION, AND MANAGEMENT, 12E. Filled with diagrams, illustrations, and tables, this market-leading text provides in-depth coverage of database design. Readers learn the key to successful database implementation: proper design of databases to fit within a larger strategic view of the data environment. Renowned for its clear, straightforward writing style, this text provides an outstanding balance of theory and practice. Updates include the latest coverage of cloud data services and a new chapter on Big Data Analytics and NoSQL, including related Hadoop technologies. In addition, new review questions, problem sets, and cases offer multiple opportunities to test understanding and develop useful design skills. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

For a thorough, timely, and distinctly effective overview of how information systems are being used in the health care industry today, turn to HEALTH MANAGEMENT INFORMATION SYSTEMS: Methods and Practical Applications, Second Edition. Skillfully revised for both content and format, this exceptional teaching and learning tool gives students a solid command of vital information to set them on the path to professional success. Each chapter opens with a scenario that introduces students to a particular HMIS problem to be understood and overcome; new emphasis on application aids in helpful understanding to readers; graphics and tables throughout the text illustrate concepts for fast comprehension; plus, five major cases based on real-life experience.

Methods and Practical Applications

A Bridge to Quality

Hospital Management

Artificial Intelligence and Evolutionary Computations in Engineering Systems

Knowledge Acquisition, Modeling and Management

Second Asia Pacific Conference, AP-BPM 2014, Brisbane, QLD, Australia, July 3-4, 2014, Proceedings

Enterprise, Business-Process and Information Systems Modeling

Information is a key resource to primary health care and is increasingly required in individual practices. This book will demystify the subject, which is often presented in complex terms. It sets out in a simple and interesting way what information those working in primary care will need, the systems required to deliver them and how to set them up. Information and IT for Primary Care uses exercises, stories, key points, case studies, model answers and think boxes. Worldwide web links refers the reader

to resources and shows how to get the most out of your computer. The book is user-friendly, jargon free and based on primary research evidence. It is essential reading for everyone working in primary care organisations including GPs, practice managers and nurses, and staff working in community trusts and the NHS.

Perspectives in the Development of Mobile Medical Information Systems: Life Cycle, Management, Methodological Approach and Application discusses System Development Life Cycle (SDLC) thoroughly, focusing on Mobile Healthcare Information Systems (M-HIS). Covering all aspect of M-HIS development, the book moves from modeling, assessment, and design phases towards prototype phase. Topics such as mobile healthcare information system requirements, model identification, user behavior, system analysis and design are all discussed. Additionally, it covers the construction, coding and testing of a new system, and encompasses a discussion on future directions of the field. Based on an existing mobile cardiac emergency system used as a real case throughout the chapters, and unifying and clarifying the various processes and concepts of SDLC for M-HIS, this book is a valuable source for medical informaticians, graduate students and several members of biomedical and medical fields interested in medical information systems. Presents a system development life cycle that can be used for developing different kinds of systems others than health related and also can be used for educational purposes Includes behavioral studies in the system development life cycle to assist in the design of systems with consideration of users' behavior, which is even more important for medical systems Uses a real mobile cardiac emergency system as an example for systems development

Object-Oriented Analysis and Design Using UMLAn Introduction to Unified Process and Design PatternsPHI Learning Pvt. Ltd.

Past, Present, and Future of Knowledge Acquisition This book contains the proceedings of the 11th European Workshop on Kno- edge Acquisition, Modeling, and Management (EKAW '99), held at Dagstuhl Castle (Germany) in May of 1999. This continuity and the high number of s- missions re?ect the mature status of the knowledge acquisition community. Knowledge Acquisition started as an attempt to solve the main bottleneck in developing expert systems (now called knowledge-based systems): Acquiring knowledgefromahumanexpert. Variousmethodsandtoolshavebeendeveloped to improve this process. These approaches signi?cantly reduced the cost of - veloping knowledge-based systems. However, these systems often only partially ful?lled the taskthey weredevelopedfor andmaintenanceremainedanunsolved problem. This required a paradigm shift that views the development process of knowledge-based systems as a modeling activity. Instead of simply transf- ring human knowledge into machine-readable code, building a knowledge-based system is now viewed as a modeling activity. A so-called knowledge model is constructed in interaction with users and experts. This model need not nec- sarily re?ect the already available human expertise. Instead it should provide a knowledgelevelcharacterizationof the knowledgethat is requiredby the system to solve the application task. Economy and quality in system development and maintainability are achieved by reusable problem-solving methods and onto- gies. The former describe the reasoning process of the knowledge-based system (i. e. , the algorithms it uses) and the latter describe the knowledge structures it uses (i. e. , the data structures). Both abstract from speci?c application and domain speci?c circumstances to enable knowledge reuse.

16th IFIP WG 5.5 Working Conference on Virtual Enterprises, PRO-VE 2015, Albi, France,, October 5-7, 2015, Proceedings

Software Engineering Fundamental

Database Systems: Design, Implementation, & Management

Forthcoming Networks and Sustainability in the IoT Era

An Introduction to Unified Process and Design Patterns

Architectures and Strategies

Risks and Resilience of Collaborative Networks

For ensuring a software system's security, it is vital to keep up with changing security precautions, attacks, and mitigations. Although model-based development enables addressing security already at design-time, design models are often inconsistent with the implementation or among themselves. An additional burden are variants of software systems. To ensure security in this context, we present an approach based on continuous automated change propagation, allowing security experts to specify security requirements on the most suitable system representation. We automatically check all system representations against these requirements and provide security-preserving refactorings for preserving security compliance. For both, we show the application to variant-rich software systems. To support legacy systems, we allow to reverse-engineer variability-aware UML models and semi-automatically map existing design models to the implementation. Besides evaluations of the individual contributions, we demonstrate the approach in two open-source case studies, the iTrust electronics health records system and the Eclipse Secure Storage.

PrefaceTo understand anything, you should not try to understand everything. — Aristotle The whole is greater than the sum of the parts; the part is greater than a fraction of the whole. — Aristotle Architecting is a challenging process of abstraction, composition, modularity, and simplification to create an architecture specification. An architecture specification captures the essence and definition of the system: understanding, parts, and the relationships among the parts. An architecture specification defines how a system solves a business problem within the scope of the business. — Putman Leave the beaten track occasionally and dive into the woods. You will be certain to find something that you have never seen before. — Alexander Graham Bell There are large gaps in the theory and practice of software architecture and engineering. Much is published about the representation of a software architecture, such as the Unified Modeling Language (UML), but little is available about the specification for a software architecture. Software engineering methods of domain engineering, process modeling languages, and well-formed patterns of reasoning aid in the specification of an architecture. The Reference Model of Open Distributed Processing (RM-ODP) defines the standard reference model for distributed software systems architectures, based on object-oriented techniques, accepted at the international level. RM-

ODP is a standard adopted by the International Standards Organization (ISO) and the International Telecommunications Union (ITU). RM-ODP is embedded and used actively in mission-critical systems industries such as in telecommunications, in health care, on Wall Street (financial services industry), in various Government systems (Logistics), in European Government Agencies such as UK Aviation control systems, as a foundation for the Object Management Group (OMG) Object Management Architecture (OMA), for defining enterprise architectures, and for defining software architectures. The software systems architecture work that is emerging, and is focused either at the component level or at the systems level, provides a key resource for architecting. This is enhanced by the architecting techniques of RM-ODP. This book assembles these great ideas, explains what they mean, and shows how to use them for practical benefit, along with real-world case study examples. By using the RM-ODP specification constructs, associated languages, architecture patterns of reasoning, semantic behavior specification, and conformance testing abilities, readers will be able to architect their specific systems based on the RM-ODP specification foundations, and specify architectures that work. One of the purposes of this book is to provide the approach to using the RM-ODP foundations in architecting and specifying a distributed processing system that addresses such key properties as interoperability, dependability, portability, integration, composability, scalability, transparency, behavior specification, quality of service, policy management, federation, and conformance validation. Another purpose of this book is to explain the underlying foundations for creating an architectural specification. These foundations come not only from RM-ODP, but also from the current work in software systems architecture. Another purpose is to guide the reader to understand the importance and benefits of creating an architecture specification for an enterprise. Yet another purpose is to provide the reader with the principles to construct software systems architecture (at both introductory and in-depth levels). By applying the proven techniques of RM-ODP for what makes a good architecture, readers will be able to build their own tailored architectures, and clearly represent them in UML or some other tool, with an understanding of the underlying principles. Practitioners of RM-ODP have found that the standard is extremely beneficial in guiding architecture definition and providing standard terminology/principles for distributed object applications and infrastructures from an enterprise perspective. Outstanding Features This book is intended to provide valuable insight into successful architecture specification by describing an unprecedented foundation to accomplish this task, describing the use of the foundation, explaining the relationships of the concepts of architecting, explaining the relationships of the concepts of distributed processing, and identifying the right methods and possible tools for architecting. All material for the book has been derived from actual experiences. A medical case study is used throughout the book in ever increasing detailed specification. This medical case study is based on actual experience of the author. In addition, many metamodels are provided to represent the concepts of RM-ODP. All of these metamodels are contributions from the author. This is information that readers can use and apply in their architecting today. RM-ODP provides a reference framework, grammars, methods of abstraction and composition, and separation of concerns to achieve an architecture specification of the system. RM-ODP provides a framework for this separation, using viewpoints, as well as separating out certain decisions (e.g., product decisions) until later. Further, the reference model provides a set of definitions, which always aids in communicating with others. There is little in the literature about RM-ODP or architecture specification, and certainly not a book dedicated as a tutorial of these subjects. Now there is. In summary, this book offers the following: How to manage the architecting process in the lifecycle of a system How to solve many architecture reuse and cost-effectiveness problems How to create a business specification How to understand and use the concepts of distributed processing in an architecture How to architect effectively How to specify an architecture How to understand and specify semantic behavior and nonfunctional properties of a system (the "ilities") How to provide the right level of detail in an architecture specification How to ensure the implementation conforms to the architecture specification How to use RM-ODP effectively How to use popular tools, such as UML, to describe an architecture A definitive tutorial of RM-ODP Audience This book is designed for: Those in the Distributed Software Systems Architecture community who are interested in a methodology for using proven architecture principles. Professional software architects who are looking for new ideas about architecting a system. Within this book, the reader will find discussions of the techniques for architecting, for creating an architecture specification, and RM-ODP's relationship to other architecture frameworks. Program managers interested in how to create a cost-effective architecture within their enterprise that focuses on the needs of the enterprise and solves an enterprise problem. They will learn how do to do this through an overview of RM-ODP, the program benefits for using it, and where RM-ODP fits in the system lifecycle process. Systems engineers interested in the lifecycle approach to enterprise architecture specification. Experienced engineers interested in expanding their understanding of how to create a valid architecture specification and gain an understanding of the distributed processing system concepts, why certain constructions are valid and why some are not, what is to be specified and how, and some new ideas and approaches to architecting a system. The reader will be able to develop a collection of useful distributed processing architecting techniques that expand upon the current software systems architecture capabilities. Developers interested in the practice of architecture specification and aligning current technology to achieve a workable system, while allowing evolutionary changes in technology solutions. Researchers interested in solutions and aids for furthering the research work in architecture specification. Individuals in the software community who are generally interested in the application of an architecture method. Readers will find examples of the applications of RM-ODP and specific analysis techniques. The expected audience will be novice and mid-level program managers, software engineers, those in the IEEE, DoD, research communities, consortia, and general architecture readers. This book can be used as a textbook and reference book for studies in the methods of architecture; for graduate studies in software architecture specification; for training information about software architecture and RM-ODP; for further education of consultants, integration specialists, and acquisition managers who need to approve and fund such work; and for researchers who are expanding the discipline of

software architecture. The inclusion of RM-ODP will bring to the U.S., principally, the outstanding work that was accomplished by the international standards working group. In brief, the RM-ODP principles form a solution set and foundation for all software architecting endeavors. It is the formalized framework for this topic, and at the International Standard (IS) level of acceptance. It forms a solution set and foundation for reuse of design patterns to provide cost-effective software architecture. It is the process for this topic, but has never before been described in a book. Many program managers (who typically set the stage as to the methodology of choice for a project), software engineers, and researchers in academia and in DARPA are unaware of the power and solutions provided by the standard, or the process of identifying and instantiating reuse of all the expensive assets of architecture. Many do not realize that there is a language for specifying software-intensive distributed processing, and that language is precisely and rigorously defined in RM-ODP for reuse. Those debating definitions for architecture, system, interface, and others can reuse the internationally agreed upon definitions. Finally, with the inclusion of RM-ODP and its relationship to other architecture frameworks, it is expected that many software engineers will benefit from reading this work, since it will be the first time these subjects are discussed in print. How to Use This Book This book is divided into four parts, aimed at increasing levels of detail. Part One provides an overview of the field of software architecture, an RM-ODP primer for managers, and an RM-ODP primer for architects. Part Two provides an in-depth study of RM-ODP and how to use it. Areas of importance and utility from RM-ODP are highlighted. Ambiguity in RM-ODP is highlighted. Warnings in the use of RM-ODP are highlighted. Part Three provides a discussion of the principal architecture patterns of use, arranged by topic. Several of these patterns of use come from emerging work under the initiative of RM-ODP, as well as lessons learned from the practice of RM-ODP. These patterns of reasoning used by the architect are founded on the principals of RM-ODP, as discussed in Part Two of the book. Part Four concludes with relating RM-ODP to other architecture methods. It also provides emerging technologies to further the patterns of reasoning for use in architecting, and a set of architecting heuristics. The information contained in this book is organized in a manner that provides clear insight into the world of distributed software-intensive processing architecture for designers and developers who are familiar with information systems technology, but want to know more about how to build a good architecture. Starting with a tutorial about software architecture, and then a tutorial about the standard for software architecture, the reader need not be an expert in the area of international standards, RM-ODP, software architecture, or specific technologies. The book goes on to address the needs of the variety of readers for which it is intended. Each chapter in the book provides an overview of the subject of the chapter, as well as a summary. For those who wish a broad brush exposure to RM-ODP, the primers of Part One provide this, as well as the overviews and summaries in each chapter of interest. As each chapter progresses, in Parts Two and Three, more and more in-depth detail is provided. The readings of these chapters are aimed at those who wish to know the technical details of a topic. There are two case studies used throughout the book, at various levels of detail. The primary case study is a Hospital enterprise, based upon the author's experience with the medical profession. A secondary case study is an airline reservation system, also based upon the author's experience. These case studies are used to describe the concepts of RM-ODP, and to show how they might be used.

Previously published as Strategic Information Management in Hospitals; An Introduction to Hospital Information Systems, Health Information Systems Architectures and Strategies is a definitive volume written by four authoritative voices in medical informatics. Illustrating the importance of hospital information management in delivering high quality health care at the lowest possible cost, this book provides the essential resources needed by the medical informatics specialist to understand and successfully manage the complex nature of hospital information systems. Author of the first edition's Foreword, Reed M. Gardner, PhD, Professor and Chair, Department of Medical Informatics, University of Utah and LDS Hospital, Salt Lake City, Utah, applauded the text's focus on the underlying administrative systems that are in place in hospitals throughout the world. He wrote, "These challenging systems that acquire, process and manage the patient's clinical information. Hospital information systems provide a major part of the information needed by those paying for health care." their components; health information systems; architectures of hospital information systems; and organizational structures for information management.

This book constitutes extended and revised papers from the 19th International Conference on Enterprise Information Systems, ICEIS 2017, held in Porto, Portugal, in April 2017. The 28 papers presented in this volume were carefully reviewed and selected for inclusion in this book from a total of 318 submissions. They were organized in topical sections named: databases and information systems integration; artificial intelligence and decision support systems; information systems analysis and specification; software agents and internet computing; human-computer interaction; and enterprise architecture.

Health Professions Education
The Art of Agile Practice
RELATIONAL DATABASE MANAGEMENT SYSTEMS
Health Information Systems
Understanding the Big Picture
Informatics, Management and Technology in Healthcare
A Rigorous Approach

This book constitutes the refereed proceedings of the 21st International Conference on Conceptual Modeling, ER 2002, held in Tampere, Finland in October 2002. The 30 revised full papers presented with abstracts of various invited contributions were carefully reviewed and selected from close to 130 submissions. The papers are organized in topical sections on semantics and meta-models, principles of ontology, web environments, theory and methods,

methods and tools, applications for practice, applying ontology in conceptual modeling, applying ontology in coneptual modeling, systems and data integration, quality assessment, and XML and object systems.

Strategic Information Management In Hospitals: An Introduction To Hospital Information Systems is a definitive volume written by four authoritative voices in medical informatics. Illustrating the importance of hospital information management in delivering high quality health care at the lowest possible cost, this book provides the essential resources needed by the medical informatics specialist to understand and successfully manage the complex nature of hospital information systems. Author of the book's Foreword, Reed M. Gardner, PhD, Professor and Chair, Department of Medical Informatics, University of Utah and LDS Hospital, Salt Lake City, Utah, applauds the text's focus on the underlying administrative systems that are in place in hospitals throughout the world. He writes, "These administrative systems are fundamental to the development and implementation of the even more challenging systems that acquire, process, and manage the patient's clinical information. Hospital information systems provide a major part of the information needed by those paying for health care." Chapter highlights include: significance of information processing in hospitals; information systems and their components; health information systems; architectures of hospital information systems; and organizational structures for information management.

An introduction to the modeling of business information systems, with processes formally modeled using Petri nets. This comprehensive introduction to modeling business-information systems focuses on business processes. It describes and demonstrates the formal modeling of processes in terms of Petri nets, using a well-established theory for capturing and analyzing models with concurrency. The precise semantics of this formal method offers a distinct advantage for modeling processes over the industrial modeling languages found in other books on the subject. Moreover, the simplicity and expressiveness of the Petri nets concept make it an ideal language for explaining foundational concepts and constructing exercises. After an overview of business information systems, the book introduces the modeling of processes in terms of classical Petri nets. This is then extended with data, time, and hierarchy to model all aspects of a process. Finally, the book explores analysis of Petri net models to detect design flaws and errors in the design process. The text, accessible to a broad audience of professionals and students, keeps technicalities to a minimum and offers numerous examples to illustrate the concepts covered. Exercises at different levels of difficulty make the book ideal for independent study or classroom use.

This book constitutes the proceedings of the Second Asia Pacific Conference on Business Process Management held in Brisbane, QLD, Australia, in July 2014. In all, 33 contributions from 12 countries were submitted. After each submission was reviewed by at least three Program Committee members, nine full papers were accepted for publication in this volume. These nine papers cover various topics that can be categorized under four main research focuses in BPM: process mining, process modeling and repositories, process model comparison, and process analysis.

Database Management System (DBMS)A Practical Approach

Proceedings of ICAIECES 2015

Perspectives in the Development of Mobile Medical Information Systems

Enterprise Information Systems

Process Mining in Healthcare

19th International Conference, ICEIS 2017, Porto, Portugal, April 26-29, 2017, Revised Selected Papers

A Petri Net-Oriented Approach

The Institute of Medicine study Crossing the Quality Chasm (2001) recommended that an interdisciplinary summit be held to further reform of health professions education in order to enhance quality and patient safety. Health Professions Education: A Bridge to Quality is the follow up to that summit, held in June 2002, where 150 participants across disciplines and occupations developed ideas about how to integrate a core set of competencies into health professions education. These core competencies include patient-centered care, interdisciplinary teams, evidence-based practice, quality improvement, and informatics. This book recommends a mix of approaches to health education improvement, including those related to oversight processes, the training environment, research, public reporting, and leadership. Educators, administrators, and health professionals can use this book to help achieve an approach to education that better prepares clinicians to meet both the needs of patients and the requirements of a changing health care system. Improvements in hospital management and emergency medical and critical care services require continual attention and dedication to ensure efficient and proper care for citizens. To support this endeavor, professionals rely more and more on the application of information systems and technologies to promote the overall quality of modern healthcare. Implementing effective technologies and strategies ensures proper quality and instruction for both the patient and medical practitioners. Hospital Management and Emergency Medicine: Breakthroughs in Research and Practice examines the latest scholarly material on emerging strategies and methods for delivering optimal emergency medical care and examines the latest technologies and tools that support the development of efficient emergency departments and hospital staff. While highlighting the

challenges medical practitioners and healthcare professionals face when treating patients and striving to optimize their processes, the book shows how revolutionary technologies and methods are vastly improving how healthcare is implemented globally. Highlighting a range of topics such as overcrowding, decision support systems, and patient safety, this publication is an ideal reference source for hospital directors, hospital staff, emergency medical services, paramedics, medical administrators, managers and employees of health units, physicians, medical students, academicians, and researchers seeking current research on providing optimal care in emergency medicine.

This book constitutes the refereed proceedings of the 16th IFIP WG 5.5 Working Conference on Virtual Enterprises, PRO-VE 2015, held in Albi, France, in October 2015. The 61 revised papers were carefully selected from 126 submissions. They provide a comprehensive overview of identified challenges and recent advances in various collaborative network (CN) domains and their applications, with a strong focus on the following areas: risks in collaborative networks; agility and resilience in collaborative networks; collaboration frameworks; logistics and transportation; innovation networks; governance in collaborative networks; collaborative communities; information and assets sharing; business processes; performance and optimization; and network formation.

The aim of this book is to refresh you from software engineering fundamental concepts, basic day to day Definitions / Terminologies, Development Models, Encompassing Specifications, Function Oriented Modelling, Object Oriented Modelling, Dynamic Modelling, Analysis, Design, Coding, Testing, Implementation, Metrics, PERT Charts, Gantt Charts, Project Management, Software Configuration Management, Software Maintenance, Software Quality Assurance etc. You will utilize it during the period of learning and even after that. It will give the glimpse of array of questions and answers. It will induce the capacity and capability and confidence in you to do real life applications. It is hoped that you will drink the water not for you only but will provide to others. A job teaches us to obey while expertise and perfection are the result of our own efforts. Do practice with software paradigms (Structured Programming, Modular Programming, Objects Oriented Programming etc.) and measure the same to become Software Engineer.

Handbook of Research on ICTs and Management Systems for Improving Efficiency in Healthcare and Social Care

Life Cycle, Management, Methodological Approach and Application

Database Management System (University of Mumbai)

Architecting the Digital Transformation

Evaluating and Exploiting Operational Healthcare Processes

11th European Workshop, EKAW'99, Dagstuhl Castle, Germany, May 26-29, 1999, Proceedings

Hospital Management and Emergency Medicine: Breakthroughs in Research and Practice

Written Strictly as per Mumbai University syllabus, this book provides a complete guide to the theoretical as well as the practical implementation of DBMS concepts including E-R Model, Relational Algebra, SQL queries, Integrity, Security, Database design, Transaction management ,Query processing and Procedural SQL language. This book assumes no prior knowledge of the reader on the subject. KEY FEATURES • Large number of application oriented problem statements and review exercises along with their solutions are provided for hands on practice. • Includes 12 University Question paper for IT department (Dec '08 - May '14) with solutions to provide an overview of University Question pattern. • Lab manual along with desired output for queries is provided as per recommendations by Mumbai University. • All the SQL queries mentioned in the book are performed and applicable for Oracle DBMS tool.

This comprehensive and well-written book presents the fundamentals of object-oriented software engineering and discusses the recent technological developments in the field. It focuses on object-oriented software engineering in the context of an overall effort to present object-oriented concepts, techniques and models that can be applied in software estimation, analysis, design, testing and quality improvement. It applies unified modelling language notations to a series of examples with a real-life case study. The example-oriented approach followed in this book will help the readers in understanding and applying the concepts of object-oriented software engineering quickly and easily in various application domains. This book is designed for the undergraduate and postgraduate students of computer science and engineering, computer applications, and information technology. KEY FEATURES : Provides the foundation and important concepts of object-oriented paradigm. Presents traditional and object-oriented software development life cycle models with a special focus on Rational Unified Process model. Addresses important issues of improving software quality and measuring various object-oriented constructs using object-oriented metrics. Presents numerous diagrams to illustrate object-oriented software engineering models and concepts. Includes a large number of solved examples, chapter-end review questions and multiple choice questions along with their answers.

This research-oriented book presents key contributions on architecting the digital transformation. It includes the following main sections covering 20 chapters: · Digital Transformation · Digital Business · Digital Architecture · Decision Support · Digital Applications Focusing on digital architectures for smart digital products and services, it is a valuable resource for researchers, doctoral students, postgraduates, graduates, undergraduates, academics and practitioners interested in digital transformation.

Improvements in health services require continual attention and dedication to ensure proper

care and treatment for citizens. To support this endeavor, professionals rely more and more on the application of information systems and technologies to promote the overall quality of modern healthcare. Maximizing Healthcare Delivery and Management through Technology Integration is an authoritative reference source for the latest scholarly research on the integration of ICT within the health services sector. Featuring comprehensive coverage on a range of topics from technical and non-technical perspectives, this book is an essential reference source for IT specialists, professionals, managers, and students seeking current research on the growing relationship between technology and healthcare.

Intelligent Strategies for ICT

Modeling Business Processes

Software Engineering with UML

Business Process Management

Encyclopedia of Software Engineering Three-Volume Set (Print)

OBJECT-ORIENTED SOFTWARE ENGINEERING

Health Management Information Systems

The Art of Agile Practice: A Composite Approach for Projects and Organizations presents a consistent, integrated, and strategic approach to achieving "Agility" in your business. Transcending beyond Agile as a software development method, it covers the gamut of methods in an organization—including business processes, governance standards, project management, quality management, and business analysis—to show you how to use this composite approach to enhance your ability to adapt and respond to evolving business requirements. The book is divided into three parts: Introduces Agility and identifies the challenges facing organizations in terms of development and maintenance approaches Presents Composite Agile Method and Strategy (CAMS) as a carefully constructed combination of process elements and illustrates its application to development, business management, business analysis, project management, and quality Includes two Agile case studies, a comprehensive index, definitions of key acronyms, and appendices with a current list of Agile methods and interview summaries The book describes relevant metrics for the entire CAMS lifecycle and explains how to embed Agile practices within formal process-maps in projects. Filled with figures, case studies, and tables that illustrate key concepts, the text is ideal for a two- or three-day training course or workshop. It is also suitable for a 13-week education course for higher degree students that includes process discussions and consideration of Agile values at both software and business levels. The chapters are organized to correspond roughly to such lectures with an option to choose from the case study chapters.

Through the use of ICT tools, such as the internet, portals, and telecommunication devices, the quality of healthcare has improved in local and global health; aiding in the development of a sustainable economy. Handbook of Research on ICTs and Management Systems for Improving Efficiency in Healthcare and Social Care brings together a valuable research collection on ICT elements needed to improve communication and collaboration between global health institutes, public and private organizations, and foundations. Highlighting the adoption and success factors in the development of technologies for healthcare, this book is essential for IT professionals, technology solution providers, researchers, and students interested in technology and its relationship with healthcare and social services.

This book constitutes the proceedings of two events held at the CAiSE conference and relating to the areas of enterprise, business process and information systems modeling: The 20th International Conference on Business Process Modeling, Development and Support, BPMDS 2019, and the 24th International Conference on Evaluation and Modeling Methods for Systems Analysis and Development, EMMSAD 2019. The conferences took place in Rome, Italy, in June 2019. The 7 full and 2 short papers accepted for BPMDS were carefully reviewed and selected from a total of 20 submissions; for EMMSAD 15 full papers were accepted from 38 submissions. The papers were organized in topical sections named as follows: BPMDS: large and complex business process modeling and development; execution and understandability of declarative process models; novel approaches in enterprise modeling; transformative business process modeling, development, and support. EMMSAD: foundations of modeling and method engineering; enterprise process and capability modeling; information systems and requirements modeling; domain-specific and ontology modeling; and evaluation of modeling approaches.

This open access book constitutes the refereed proceedings of the 18th International Conference on String Processing and Information Retrieval, ICOST 2020, held in Hammamet, Tunisia, in June 2020. The 17 full papers and 23 short papers presented in this volume were carefully reviewed and selected from 49 submissions. They cover topics such as: IoT and AI solutions for e-health; biomedical and health informatics; behavior and activity monitoring; behavior and activity monitoring; and wellbeing technology. *This conference was held virtually due to the COVID-19 pandemic.*

Conceptual Modeling - ER 2002

An Introduction to Hospital Information Systems

Information and Communication Technology for Competitive Strategies (ICTCS 2021)

Second International Conference, FoNeS-IoT 2021, Volume 2

Digital Business, Technology, Decision Support, Management

Breakthroughs in Research and Practice

A Composite Approach for Projects and Organizations

The book is a collection of high-quality peer-reviewed research papers presented in the first International Conference on International Conference on Artificial Intelligence and Evolutionary Computations in Engineering Systems (ICAIECES -2015) held at Velammal Engineering College (VEC), Chennai, India during 22 – 23 April 2015. The book discusses wide variety of industrial, engineering and scientific applications of the emerging techniques. Researchers from academic and industry present their original work and exchange ideas, information, techniques and applications in the field of Communication, Computing and Power Technologies.

SOFTWARE ENGINEERING USING METAHEURISTIC ALGORITHMS