

<<软件工程基础>>

图书基本信息

书名：<<软件工程基础>>

13位ISBN编号：9787302274889

10位ISBN编号：7302274886

出版时间：2012-1

出版时间：清华大学出版社

作者：马尔

页数：441

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

<<软件工程基础>>

内容概要

本书最新版不仅融合了软件工程领域近年来所取得的技术发展和实践，而且还阐述了如何把这些技术应用到实际的软件开发工作中，在每章中，还给出了大量很有启发性的示例，以帮助读者对有关内容的分析、理解和掌握，是“软件工程”课程的理想教材。

<<软件工程基础>>

作者简介

作者：(印度)马尔(Rajib Mall)

<<软件工程基础>>

书籍目录

- preface
- preface to the first edition
- list of figures
- 1. introduction
 - 1.1 the software engineering discipline—its evolution and impact
 - 1.2 software development projects
 - 1.3 what is wrong with the exploratory style of software development?
 - 1.4 emergence of software engineering
 - 1.5 notable changes in software development practices
 - 1.6 computer systems engineering
 - summary
 - exercises
- 2. software life cycle models
 - 2.1 why use a life cycle model?
 - 2.2 classical waterfall model
 - 2.3 iterative waterfall model
 - 2.4 prototyping model
 - 2.5 evolutionary model
 - 2.6 spiral model
 - 2.7 comparison of different life cycle models
 - summary
 - exercises
- 3. software project management
 - 3.1 responsibilities of a software project manager
 - 3.2 project planning
 - 3.3 metrics for project size estimation
 - 3.4 project estimation techniques
 - 3.5 empirical estimation techniques
 - 3.6 cocomo--- a heuristic estimation technique
 - 3.7 halstead's software science--an analytical technique
 - 3.8 staffing level estimation
 - 3.9 scheduling
 - 3.10 organization and team structures
 - 3.11 staffing
 - 3.12 risk management
 - 3.13 software configuration management
 - 3.14 miscellaneous plans
 - summary
 - exercises
- 4. requirements analysis and specification,
 - 4.1 requirements gathering and analysis
 - 4.2 software requirements specification (srs)
 - 4.3 formal system specification

<<软件工程基础>>

- 4.4 axiomatic specification
- 4.5 algebraic specification.
- 4.6 executable specification and 4gl
- summary
- exercises
- 5. software design
 - 5.1 outcome of a design process
 - 5.2 how can we characterize a good software design?
 - 5.3 cohesion and coupling
 - 5.4 layered arrangement of modules
 - 5.5 approaches to software design
 - 5.6 object-oriented versus function-oriented design
- approaches
 - summary
 - exercises
- 6. function-oriented software design
 - 6.1 overview of sa/sd methodology
 - 6.2 structured analysis
 - 6.3 data flow diagrams (dfds)
 - 6.4 extending dfd technique to make it applicable to
 - 6.5 structured design
 - 6.6 detailed design
 - 6.7 design review
- summary
- exercises
- 7. object modelling using uml
 - 7.1 overview of basic object-orientation concepts
 - 7.2 unified modelling language (uml)
 - 7.3 uml diagrams
 - 7.4 use case model
 - 7.5 class diagrams
 - 7.6 interaction diagrams
 - 7.7 activity diagrams
 - 7.8 state chart diagram
 - 7.9 postscript
- summary
- exercises
- 8. object-oriented software development
 - 8.1 patterns
 - 8.2 some common design patterns
 - 8.3 an object-oriented analysis and design methodology.
 - 8.4 interaction modelling
 - 8.5 applications of the analysis and design process
 - 8.6 ood goodness criteria
- summary
- exercises
- 9. user interface design

<<软件工程基础>>

- 9.1 characteristics of a good user interface
- 9.2 basic concepts
- 9.3 types of user interfaces
- 9.4 fundamentals of component-based gui development
- 9.5 a user interface design methodology
- summary
- exercises
- 10. coding and testing
 - 10.1 coding
 - 10.2 code review
 - 10.3 software documentation
 - 10.4 testing
 - 10.5 testing in the large versus testing in the small
 - 10.6 unit testing
 - 10.7 black-box testing
 - 10.8 white-box testing
 - 10.9 debugging
 - 10.10 program analysis tools
 - 10.11 integration testing
 - 10.12 testing object-oriented programs
 - 10.13 system testing
 - 10.14 some general issues associated with testing
 - summary
 - exercises
- 11. software reliability and quality management
 - 11.1 software reliability
 - 11.2 statistical testing
 - 11.3 software quality
 - 11.4 software quality management system
 - 11.5 iso 9000
 - 11.6 sei capability maturity model
 - 11.7 personal software process (psp)
 - 11.8 six sigma
 - summary
 - exercises
- 12. computer aided software engineering
 - 12.1 case and its scope
 - 12.2 case environment
 - 12.3 case support in software life cycle
 - 12.4 other characteristics of case tools
 - 12.5 towards second generation case tool
 - 12.6 architecture of a case environment
 - summary
 - exercises
- 13. software maintenance
 - 13.1 characteristics of software maintenance
 - 13.2 software reverse engineering

<<软件工程基础>>

13.3 software maintenance process models

13.4 estimation of maintenance cost

summary

exercises

14. software reuse

14.1 what can be reused?

14.2 why almost no reuse so far?

14.3 basic issues in any reuse program

14.4 a reuse approach

14.5 reuse at organization level

summary

exercises

15. emerging trends

15.1 client-server software

15.2 service-oriented architecture (soa)

15.3 software as a service (saas)

summary

exercises

references

index

章节摘录

版权页：插图：17. Perform structured analysis and structured design (SA/SD) for a software to be developed for automating various bookkeeping activities of a small bookshop. From a discussion with the owner of the bookshop, the following user requirements for this Bookshop Automation Software (BAS) : have been arrived at: BAS should help the customers query whether a book is in stock. The users can query the availability of a book either by using the book title or by using the name of the author. If the book is not currently being sold by the bookshop, then the customer is asked to enter full details of the book for procurement of the book in future. The customer can also provide his e-mail address, so that he can be intimated automatically by the software as and when the book copies are received. If a book is in stock, the exact number of copies available and the rack number in which the book is located should be displayed. If a book is not in stock, the query for the book is used to increment a request field for the book. The manager can periodically view the request field of the books to arrive at a rough estimate regarding the Current demand for different books. BAS should maintain the price of various books. As soon as a customer selects his books for purchase, the sales clerk would enter the ISBN numbers of the books. BAS should update the stock, and generate the sales receipt for the book. BAS should allow employees to update the inventory whenever new supply arrives. Also upon request by the owner of the book shop, BAS should generate sales statistics (viz. book name, publisher, ISBN number, number of copies sold, and the sales revenue) for any period. The sales statistics will help the owner to know the exact business done over any period of time and also to determine inventory level required for various books. The inventory level required for a book is equal to the number of copies of the book sold over a period of one week multiplied by the average number of weeks it takes to procure the book from its publisher. Everyday the book shop owner would give a command for the BAS to print the books which have fallen below the threshold and the number of copies to be procured along with the full address of the publisher.

<<软件工程基础>>

编辑推荐

《软件工程基础(第3版)(英文版)(影印版)》是大学计算机教育国外著名教材系列之一。

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>