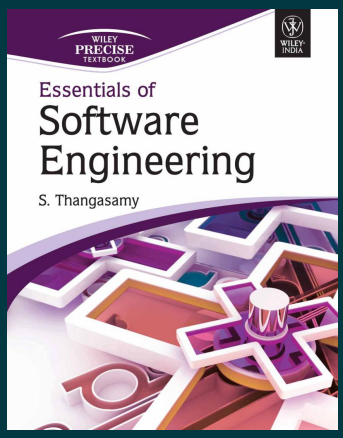
WILEY



Essentials of Software Engineering

By S. Thangasamy

Paperback 9788126520060 ₹679.00

Pages: 208

Description

Software engineering is the application of engineering methods to the development and maintenance of computer software. Since software-based systems are becoming more and more pivotal in most activities of interest to modern life, the production of quality software in a cost effective manner is of utmost interest to the information technology industry.

Essentials of Software Engineering is a compact text for the students of Computer Science, and IT related disciplines during their first course in “Software Engineering.” The knowledge gained during this course should provide the necessary confidence to the new entrants to software industry along with the knowledge about sources for acquiring more advanced materials on specific topics of interest during professional practice or higher studies.

The book provides sufficient treatment of conventional software development methodologies as well as the modern methods in current practice reflecting the diverse trends in the industry today.

About the Author

S. Thangasamy

Dr. S. Thangasamy is presently the Dean (Research & Technology) Kumaraguru College of Technology

Table of Contents

Introduction to Software Engineering

Learning Objectives

· Expanding Roles for Computers

· The Place of Software

· Software Engineering Discipline

· Computer-Based Systems

· Increasing Size and Scope of Software

· Generic vs. Custom-made Software Products

· Distinctive Characteristics of Software Products

· Software Engineering: Still an Emerging Discipline

Summary

Review Questions

Software Development Models

Learning Objectives

· Life Cycle

· Development Process

· Life Cycle Models

Summary

Review Questions

Requirements Engineering

Learning Objectives

· Classification of Requirements

· Requirements Engineering Tasks

Summary

Review Questions

System Models

· Learning Objectives

· Domain Analysis and Modeling

· Data Models

· Functional Models

· Object-Oriented Models

Summary

Review Questions

Software Design and Implementation

Learning Objectives

· Architectural Design

· Structured System Design

· Object-Oriented Design

· Detailed Design

· User Interface Design

· Reusable Components

· Patterns

· Frameworks

· Coding

Summary

Review Questions

Software Testing

Learning Objectives

· Conventional Testing and SDLC Testing

· Organization for Testing

· Non-execution-Based Testing

· Execution-Based Testing
Summary
Review Questions
Software Quality Management
Learning Objectives
· Quality Dimensions
· Process Quality and Product Quality
· Quality Assurance Planning
· Quality Measurements
· Software Configuration Management
· Software Process Improvement
Summary
Review Questions
Software Project Management
Learning Objectives
· Software Projects
· Project Feasibility Study
· Project Planning
· Project Organization
· Estimation of Project Effort
· Risk Management
· Project Scheduling
· Project Monitoring and Control
Summary
Review Questions
Software Maintenance
Learning Objectives
· Planning for Maintenance
· Maintenance Activities
· Reengineering
Summary
Review Questions
Glossary
References
Answers to Review Questions
Index

To purchase this product, please visit:
https://www.wileyindia.com/essentials-of-software-engineering.html

Scan to buy