

## The Cert Oracle Secure Coding Standard For Java Sei Series In Software Engineering Sei Series In Software Engineering Paperback

The CERT C Coding Standard, Second Edition enumerates the coding errors that are the root causes of current software vulnerabilities in C, prioritizing them by severity, likelihood of exploitation, and remediation costs. "Secure programming in C can be more difficult than even many experienced programmers realize," said Robert C. Seacord, technical manager of the CERT Secure Coding Initiative and author of the CERT C Coding Standard. "Software systems are becoming increasingly complex as our dependency on these systems increases. In our new CERT standard, as with all of our standards, we identify insecure coding practices and present secure alternatives that software developers can implement to reduce or eliminate vulnerabilities before deployment."

A computer forensics "how-to" for fighting malicious code and analyzing incidents With our ever-increasing reliance on computers comes an ever-growing risk of malware. Security professionals will find plenty of solutions in this book to the problems posed by viruses, Trojan horses, worms, spyware, rootkits, adware, and other invasive software. Written by well-known malware experts, this guide reveals solutions to numerous problems and includes a DVD of custom programs and tools that illustrate the concepts, enhancing your skills. Security professionals face a constant battle against malicious software; this practical manual will improve your analytical capabilities and provide dozens of valuable and innovative solutions. Covers classifying malware, packing and unpacking, dynamic malware analysis, decoding and decrypting, rootkit detection, memory forensics, open source malware research, and much more. Includes generous amounts of source code in C, Python, and Perl to extend your favorite tools or build new ones, and custom programs on the DVD to demonstrate the solutions. Malware Analyst's Cookbook is indispensable to IT security administrators, incident responders, forensic analysts, and malware researchers.

Can a system be considered truly reliable if it isn't fundamentally secure? Or can it be considered secure if it's unreliable? Security is crucial to the design and operation of scalable systems in production, as it plays an important part in product quality, performance, and availability. In this book, experts from Google share best practices to help your organization design scalable and reliable systems that are fundamentally secure. Two previous O'Reilly books from Google—Site Reliability Engineering and The Site Reliability Workbook—demonstrated how and why a commitment to the entire service lifecycle enables organizations to successfully build, deploy, monitor, and maintain software systems. In this latest guide, the authors offer insights into system design, implementation, and maintenance from practitioners who specialize in security and reliability. They also discuss how building and adopting their recommended best practices requires a culture that's supportive of such change. You'll learn about secure and reliable systems through: Design strategies Recommendations for coding, testing, and debugging practices Strategies to prepare for, respond to, and recover from incidents Cultural best practices that help teams across your organization collaborate effectively

The traditional division of labor between the database (which only stores and manages SQL and XML data for fast, easy data search and retrieval) and the application server (which runs application or business logic, and presentation logic) is obsolete. Although the book's primary focus is on programming the Oracle Database, the concepts and techniques provided apply to most RDBMS that support Java including Oracle, DB2, Sybase, MySQL, and PostgreSQL. This is the first book to cover new Java, JDBC, SQLJ, JPublisher and Web Services features in Oracle Database 10g Release 2 (the coverage starts with Oracle 9i Release 2). This book is a must-read for database developers audience (DBAs, database applications developers, data architects), Java developers (JDBC, SQLJ, J2EE, and OR Mapping frameworks), and to the emerging Web Services assemblers. Describes pragmatic solutions, advanced database applications, as well as provision of a wealth of code samples. Addresses programming models which run within the database as well as programming models which run in middle-tier or client-tier against the database. Discusses languages for stored procedures: when to use proprietary languages such as PL/SQL and when to use standard languages such as Java; also running non-Java scripting languages in the database. Describes the Java runtime in the Oracle database 10g (i.e., OracleJVM), its architecture, memory management, security management, threading, Java execution, the Native Compiler (i.e., NCOMP), how to make Java known to SQL and PL/SQL, data types mapping, how to call-out to external Web components, EJB components, ERP frameworks, and external databases. Describes JDBC programming and the new Oracle JDBC 10g features, its advanced connection services (pooling, failover, load-balancing, and the fast database event notification mechanism) for clustered databases (RAC) in Grid environments. Describes SQLJ programming and the latest Oracle SQLJ 10g features, contrasting it with JDBC. Describes the latest Database Web services features, Web services concepts and Services Oriented Architecture (SOA) for DBA, the database as Web services provider and the database as Web services consumer. Abridged coverage of JPublisher 10g, a versatile complement to JDBC, SQLJ and Database Web Services.

Despite their myriad manifestations and different targets, nearly all attacks on computer systems have one fundamental cause: the code used to run far too many systems today is not secure. Flaws in its design, implementation, testing, and operations allow attackers all-too-easy access. "Secure Coding, by Mark G. Graff and Ken vanWyk, looks at the problem of bad code in a new way. Packed with advice based on the authors' decades of experience in the computer security field, this concise and highly readable book explains why so much code today is filled with vulnerabilities, and tells readers what they must do to avoid writing code that can be exploited by attackers. Beyond the technical, "Secure Coding sheds new light on the economic, psychological, and sheer practical reasons why security vulnerabilities are so ubiquitous today. It presents a new way of thinking about these vulnerabilities and ways that developers can compensate for the factors that have produced such unsecured software in the past. It issues a challenge to all those concerned about computer security to finally make a commitment to building code the right way.

The comprehensive study aide for those preparing for the new Oracle Certified Professional Java SE Programmer I Exam 1Z0-815 Used primarily in mobile and desktop application development, Java is a platform-independent, object-oriented programming language. It is the principal language used in Android application development as well as a popular language for client-side cloud applications. Oracle has updated its Java Programmer certification tracks for Oracle Certified Professional. OCP Oracle Certified Professional Java SE 11 Programmer I Study Guide covers 100% of the exam objectives, ensuring that you are thoroughly prepared for this challenging certification exam. This comprehensive, in-depth study guide helps you develop the functional-programming knowledge required to pass the exam and earn certification. All vital topics are covered, including Java building blocks, operators and loops, String and StringBuilder, Array and ArrayList, and more. Included is access to Sybex's superior online

interactive learning environment and test bank—containing self-assessment tests, chapter tests, bonus practice exam questions, electronic flashcards, and a searchable glossary of important terms. This indispensable guide: Clarifies complex material and strengthens your comprehension and retention of key topics Covers all exam objectives such as methods and encapsulation, exceptions, inheriting abstract classes and interfaces, and Java 8 Dates and Lambda Expressions Explains object-oriented design principles and patterns Helps you master the fundamentals of functional programming Enables you to create Java solutions applicable to real-world scenarios There are over 9 millions developers using Java around the world, yet hiring managers face challenges filling open positions with qualified candidates. The OCP Oracle Certified Professional Java SE 11 Programmer I Study Guide will help you take the next step in your career.

The completely-updated preparation guide for the new OCP Oracle Certified Professional Java SE 11 Programmer II exam—covers Exam 1Z0-816 Java, a platform-independent, object-oriented programming language, is used primarily in mobile and desktop application development. It is a popular language for client-side cloud applications and the principal language used to develop Android applications. Oracle has recently updated its Java Programmer certification tracks for Oracle Certified Professional. OCP Oracle Certified Professional Java SE 11 Programmer II Study Guide ensures that you are fully prepared for this difficult certification exam. Covering 100% of exam objectives, this in-depth study guide provides comprehensive coverage of the functional-programming knowledge necessary to succeed. Every exam topic is thoroughly and completely covered including exceptions and assertions, class design, generics and collections, threads, concurrency, IO and NIO, and more. Access to Sybex's superior online interactive learning environment and test bank—including self-assessment tests, chapter tests, bonus practice exam questions, electronic flashcards, and a searchable glossary of important terms—provides everything you need to be fully prepared on exam day. This must-have guide: Covers all exam objectives such as inheriting abstract classes and interfaces, advanced strings and localization, JDBC, and Object-Oriented design principles and patterns Explains complex material and reinforces your comprehension and retention of important topics Helps you master more advanced areas of functional programming Demonstrates practical methods for building Java solutions OCP Oracle Certified Professional Java SE 11 Programmer II Study Guide will prove invaluable for anyone seeking achievement of this challenging exam, as well as junior- to senior-level programmers who uses Java as their primary programming language.

The Java EE 7 Tutorial: Volume 2, Fifth Edition, is a task-oriented, example-driven guide to developing enterprise applications for the Java Platform, Enterprise Edition 7 (Java EE 7). Written by members of the Java EE documentation team at Oracle, this book provides new and intermediate Java programmers with a deep understanding of the platform. This guide includes descriptions of platform features and provides instructions for using the latest versions of NetBeans IDE and GlassFish Server Open Source Edition. The book introduces Enterprise JavaBeans components, the Java Persistence API, the Java Message Service (JMS) API, Java EE security, transactions, resource adapters, Java EE Interceptors, Batch Applications for the Java Platform, and Concurrency Utilities for Java EE. The book culminates with three case studies that illustrate the use of multiple Java EE 7 APIs. "I'm an enthusiastic supporter of the CERT Secure Coding Initiative. Programmers have lots of sources of advice on correctness, clarity, maintainability, performance, and even safety. Advice on how specific language features affect security has been missing. The CERT® C Secure Coding Standard fills this need." –Randy Meyers, Chairman of ANSI C "For years we have relied upon the CERT/CC to publish advisories documenting an endless stream of security problems. Now CERT has embodied the advice of leading technical experts to give programmers and managers the practical guidance needed to avoid those problems in new applications and to help secure legacy systems. Well done!" –Dr. Thomas Plum, founder of Plum Hall, Inc. "Connectivity has sharply increased the need for secure, hacker-safe applications. By combining this CERT standard with other safety guidelines, customers gain all-round protection and approach the goal of zero-defect software." –Chris Tapp, Field Applications Engineer, LDRA Ltd. "I've found this standard to be an indispensable collection of expert information on exactly how modern software systems fail in practice. It is the perfect place to start for establishing internal secure coding guidelines. You won't find this information elsewhere, and, when it comes to software security, what you don't know is often exactly what hurts you." –John McDonald, coauthor of The Art of Software Security Assessment Software security has major implications for the operations and assets of organizations, as well as for the welfare of individuals. To create secure software, developers must know where the dangers lie. Secure programming in C can be more difficult than even many experienced programmers believe. This book is an essential desktop reference documenting the first official release of The CERT® C Secure Coding Standard . The standard itemizes those coding errors that are the root causes of software vulnerabilities in C and prioritizes them by severity, likelihood of exploitation, and remediation costs. Each guideline provides examples of insecure code as well as secure, alternative implementations. If uniformly applied, these guidelines will eliminate the critical coding errors that lead to buffer overflows, format string vulnerabilities, integer overflow, and other common software vulnerabilities.

Covers topics such as the importance of secure systems, threat modeling, canonical representation issues, solving database input, denial-of-service attacks, and security code reviews and checklists.

Last Updated: 1st Jan 2021 - Build 1.1 IMPORTANT: 1. We enhance the content and publish it on Amazon regularly. We update the build number upon each release so that you can determine if a new build has been released since your purchase. If you have an older build of the eBook, please contact Amazon support to get the latest build on your device. You will then need to delete the book from your Kindle device and then redownload it. 2. This book DOES NOT include mock exams. It is meant to complement Enthware Mock Exams and should be used as a study guide before or while attempting the mock Exams. If you are a high schooler or a Java beginner, the 1Z0-811 exam is the best way to prove that you have learnt the basics of Java programming. OCFA Java Foundations Exam Fundamentals is a comprehensive study guide for those taking the Oracle Certified Foundations Associate, Java Certification Exam (Exam Code 1Z0-811). With complete coverage of 100% of the exam objectives, this book provides everything you need to know to take the exam confidently. Written by an expert with more than 20 years of industry experience, the book also helps you ace technical interviews by making you aware of things that technical managers focus on. The Java Foundations exam requires you to learn basic features of the language including various Java platforms, OOP, arrays, loops, decision constructs, and exception handling. This book covers all such topics thoroughly. The book also includes coding exercises that will get you moving on "write a lot of code" front. The book makes it easy to get your doubts cleared by including links to existing discussion on a particular topic. If the existing discussion doesn't address your doubt, you can see more clarification from the Author.

"Organizations worldwide rely on Java code to perform mission-critical tasks, and therefore that code must be reliable, robust, fast,

maintainable, and secure. Java™ Coding Guidelines brings together expert guidelines, recommendations, and code examples to help you meet these demands."--Publisher description.

Focus on the security aspects of designing, building, and maintaining a secure Oracle Database application. Starting with data encryption, you will learn to work with transparent data, back-up, and networks. You will then go through the key principles of audits, where you will get to know more about identity preservation, policies and fine-grained audits. Moving on to virtual private databases, you'll set up and configure a VPD to work in concert with other security features in Oracle, followed by tips on managing configuration drift, profiles, and default users. Shifting focus to coding, you will take a look at secure coding standards, multi-schema database models, code-based access control, and SQL injection. Finally, you'll cover single sign-on (SSO), and will be introduced to Oracle Internet Directory (OID), Oracle Access Manager (OAM), and Oracle Identity Management (OIM) by installing and configuring them to meet your needs. Oracle databases hold the majority of the world's relational data, and are attractive targets for attackers seeking high-value targets for data theft. Compromise of a single Oracle Database can result in tens of millions of breached records costing millions in breach-mitigation activity. This book gets you ready to avoid that nightmare scenario. What You Will Learn Work with Oracle Internet Directory using the command-line and the console Integrate Oracle Access Manager with different applications Work with the Oracle Identity Manager console and connectors, while creating your own custom one Troubleshooting issues with OID, OAM, and OID Dive deep into file system and network security concepts Who This Book Is For Oracle DBAs and developers. Readers will need a basic understanding of Oracle RDBMS and Oracle Application Server to take complete advantage of this book.

Utilize this comprehensive, yet practical, overview of modern cryptography and cryptanalysis to improve performance. Learn by example with source code in C# and .NET, and come away with an understanding of public key encryption systems and challenging cryptography mechanisms such as lattice-based cryptography. Modern cryptography is the lifeboat of a secure infrastructure. From global economies and governments, to meeting everyday consumer needs, cryptography is ubiquitous, and used in search, design, data, artificial intelligence, and other fields of information technology and communications. Its complexity can lead to misconfiguration, misuse, and misconceptions. For developers who are involved in designing and implementing cryptographic operations in their applications, understanding the implications of the algorithms, modes, and other parameters is vital. Pro Cryptography and Cryptanalysis is for the reader who has a professional need or personal interest in developing cryptography algorithms and security schemes using C# and .NET. You will learn how to implement advanced cryptographic algorithms (such as Elliptic Curve Cryptography Algorithms, Lattice-based Cryptography, Searchable Encryption, Homomorphic Encryption), and come away with a solid understanding of the internal cryptographic mechanisms, and common ways in which the algorithms are correctly implemented in real practice. With the new era of quantum computing, this book serves as a stepping stone to quantum cryptography, finding useful connections between current cryptographic concepts and quantum related topics. What You Will Learn Know when to enlist cryptography, and how it is often misunderstood and misused Explore modern cryptography algorithms, practices, and properties Design and implement usable, advanced cryptographic methods and mechanisms Understand how new features in C# and .NET impact the future of cryptographic algorithms Use the cryptographic model, services, and System.Security.Cryptography namespace in .NET Modernize your cryptanalyst mindset by exploiting the performance of C# and .NET with its weak cryptographic algorithms Practice the basics of public key cryptography, including ECDSA signatures Discover how most algorithms can be broken Who This Book Is For Information security experts, cryptologists, software engineers, developers, data scientists, and academia who have experience with C#, .NET, as well as IDEs such as Visual Studio, VS Code, or Mono. Because this book is for an intermediate to advanced audience, readers should also possess an understanding of cryptography (symmetric and asymmetric) concepts.

Describes how to put software security into practice, covering such topics as risk analysis, coding policies, Agile Methods, cryptographic standards, and threat tree patterns.

Ten Strategies of a World-Class Cyber Security Operations Center conveys MITRE's accumulated expertise on enterprise-grade computer network defense. It covers ten key qualities of leading Cyber Security Operations Centers (CSOCs), ranging from their structure and organization, to processes that best enable smooth operations, to approaches that extract maximum value from key CSOC technology investments. This book offers perspective and context for key decision points in structuring a CSOC, such as what capabilities to offer, how to architect large-scale data collection and analysis, and how to prepare the CSOC team for agile, threat-based response. If you manage, work in, or are standing up a CSOC, this book is for you. It is also available on MITRE's website, [www.mitre.org](http://www.mitre.org).

This OCP Oracle Certified Professional Java SE 11 Developer Complete Study Guide was published before Oracle announced major changes to its OCP certification program and the release of the new Developer 1Z0-819 exam. No matter the changes, rest assured this Study Guide covers everything you need to prepare for and take the exam. NOTE: The OCP Java SE 11 Programmer I Exam 1Z0-815 and Programmer II Exam 1Z0-816 have been retired (as of October 1, 2020), and Oracle has released a new Developer Exam 1Z0-819 to replace the previous exams. The Upgrade Exam 1Z0-817 remains the same. This is the most comprehensive prep guide available for the OCP Oracle Certified Professional Java SE 11 Developer certification—it covers Exam 1Z0-819 and the Upgrade Exam 1Z0-817 (as well as the retired Programmer I Exam 1Z0-815 and Programmer II Exam 1Z0-816)! Java is widely-used for backend cloud applications, Software as a Service applications (SAAS), and is the principal language used to develop Android applications. This object-oriented programming language is designed to run on all platforms that support Java without the need for recompilation. Oracle Java Programmer certification is highly valued by employers throughout the technology industry. The OCP Oracle Certified Professional Java SE 11 Developer Complete Study Guide is an indispensable resource for anyone preparing for the certification exam. This fully up-to-date guide covers 100% of exam objectives for Exam 1Z0-819 and Upgrade Exam 1Z0-817 (in addition to the previous Exam 1Z0-815 and Exam 1Z0-816). In-depth chapters present clear, comprehensive coverage of the functional-programming knowledge necessary to succeed. Each chapter clarifies complex material while reinforcing your understanding of vital exam topics. Also included is access to Sybex's superior online interactive learning environment and test bank that includes self-assessment tests, chapter tests, bonus practice exam questions, electronic flashcards, and a searchable glossary of important terms. The ultimate study aid for the challenging OCP exams, this popular guide: Helps you master the changes in depth, difficulty, and new module topics of the latest OCP exams Covers all exam objectives such as Java arrays, primitive data types, string APIs, objects and classes, operators and decision constructs, and applying encapsulation Allows developers to catch up on all of the newest Java material like lambda expressions, streams,

concurrency, annotations, generics, and modules Provides practical methods for building Java applications, handling exceptions, programming through interfaces, secure coding in Java SE, and more Enables you to gain the information, understanding, and practice you need to pass the OCP exams The OCP Oracle Certified Professional Java SE 11 Developer Complete Study Guide is a must-have book for certification candidates needing to pass these challenging exams, as well as junior- to senior-level developers who use Java as their primary programming language.

Following her widely acclaimed Autobiography of Red ("A spellbinding achievement" --Susan Sontag), a new collection of poetry and prose that displays Anne Carson's signature mixture of opposites--the classic and the modern, cinema and print, narrative and verse. In Men in the Off Hours, Carson reinvents figures as diverse as Oedipus, Emily Dickinson, and Audubon. She views the writings of Sappho, St. Augustine, and Catullus through a modern lens. She sets up startling juxtapositions (Lazarus among video paraphernalia; Virginia Woolf and Thucydides discussing war). And in a final prose poem, she meditates on the recent death of her mother. With its quiet, acute spirituality, its fearless wit and sensuality, and its joyful understanding that "the fact of the matter for humans is imperfection," Men in the Off Hours shows us "the most exciting poet writing in English today" (Michael Ondaatje) at her best. From the Hardcover edition.

\*\* ACCORDING TO BUSINESS INSIDER: "Getting your MBA has never been easier. Haroun is one of the highest rated professors on Udemy, so you can expect to be in good hands through the course of your education." \*\* This is the book version of the popular Udemy.com course called "An Entire MBA in 1 Course." From the Author of "101 Crucial Lessons They Don't Teach You in Business School," which Forbes magazine calls "1 of 6 books that all entrepreneurs need to read right now." This book will teach you everything you need to know about business....from starting a company to taking it public. Most business books are significantly outdated. This book leverages many online resources and makes the general business, accounting and finance process very easy to understand (and enjoyable too)! There are many incredibly engaging and entertaining video links in the book to YouTube and other sources; 'edutainment' works! Although this book is close to 400 pages, I tried to visualize the content of this book as much as possible as this is a more impactful and enjoyable way to learn (think Pinterest versus the tiny words in the Economist)! The contents of this book are all based on my work experience at several firms, including Goldman Sachs, the consulting industry at Accenture, a few companies I have started, the hedge fund industry where I worked at Citadel and most recently, based on my experience at a prominent San Francisco based venture capital firm. I also included many helpful practical business concepts I learned while I did an MBA at Columbia University and a Bachelor of Commerce degree at McGill University. Think of this book as a "greatest hits" business summary from my MBA, undergraduate business degree, work experience in consulting, equities, hedge funds, venture capital and starting my own companies. As the title of this book suggests, this is an entire MBA in one book; it's also a practical manual to help you accomplish your business career goals. I have minimized "boring theoretical concepts" in this book in order to keep it as close to reality as possible. I hope you enjoy it! In addition to teaching at 4 universities in the San Francisco Bay Area, you can find other courses that I teach online at [www.udemy.com/user/chris-haroun/](http://www.udemy.com/user/chris-haroun/). The only comprehensive set of guidelines for secure Java programming - from the field's leading organizations, CERT and Oracle

- Authoritative, end-to-end code-level requirements for building secure systems with any recent version of Java, including the new Java 7
- Presents techniques that also improve safety, reliability, dependability, robustness, availability, maintainability, and other attributes of quality.
- Includes extensive risk assessment guidance, plus references for further information.

This is the first authoritative, comprehensive compilation of code-level requirements for building secure systems in Java. Organized by CERT's pioneering software security experts, with support from Oracle's own Java platform developers, it covers every facet of secure software coding with Java 7 SE and Java 6 SE, and offers value even to developers working with other Java versions. The authors itemize the most common coding errors leading to vulnerabilities in Java programs, and provide specific guidelines for avoiding each of them. They show how to produce programs that are not only secure, but also safer, more reliable, more robust, and easier to maintain. After a high-level introduction to Java application security, eighteen consistently-organized chapters detail specific guidelines for each facet of Java development. Each set of guidelines defines conformance, presents both noncompliant examples and corresponding compliant solutions, shows how to assess risk, and offers references for further information. To limit this book's size, the authors focus on 'normative requirements': strict rules for what programmers must do for their work to be secure, as defined by conformance to specific standards that can be tested through automated analysis software. (Note: A follow-up book will present 'non-normative requirements': recommendations for what Java developers typically 'should' do to further strengthen program security beyond testable 'requirements'.)

6+ Hours of Video Instruction Overview Java Professional Development LiveLessons provides developers with practical guidance for developing Java programs that are robust and secure. These LiveLessons complement The CERT Oracle Secure Coding Standard for Java . Description In this video training, Robert provides complementary coverage to the rules in The CERT Oracle Secure Coding Standard for Java, demonstrating common Java programming errors and their consequences using Java 8 and Eclipse. Robert describes language behaviors left to the discretion of JVM and compiler implementers and guides developers in the proper use of Java's APIs including lang, util, Collections, Concurrency Utilities, Logging, Management, Reflection, Regular Expressions, Zip, I/O, JMX, JNI, Math, Serialization, and JAXP. About the Instructor Robert C. Seacord is the secure coding technical manager in the CERT Division of Carnegie Mellon's Software Engineering Institute (SEI) in Pittsburgh, Pennsylvania. Robert is also a professor in the Institute for Software Research and the Information Networking Institute at Carnegie Mellon University. He is the author of eight books on software development including The CERT® Oracle® Secure Coding Standard for Java™ (Addison- Wesley, 2012) and Java™ Coding Guidelines 75 Recommendations for Reliable and Secure Programs (Addison-Wesley, 2013). He has also published more than sixty papers on software security, component-based software engineering, web-based system design, legacy-system modernization, component repositories and search engines, and user interface design and development. Skill Level Advanced What You Will Learn How to perform common Java language programming tasks correctly. How to avoid programming errors that are not detected or reported by the compiler. How to develop programs that are robust, reliable, secure, and fast. Who Should Take This Course Java developers who wish to make the transition from a skilled amateur to a software professional capable of developing code that has to work. Course Requirements Understanding of programming and development Experience with Java programming Familiarity with Eclipse Table of Contents Part I (of III) Introduction Lesson 1: Java Security Concepts Lesson 2: Input Validation and Data Sanitization (IDS) Lesson 3: Declarations and Initialization (DCL): Lesson 4: Expressions (EXP) Lesson 5: Numeric Types and Operations (NUM) Lesson 6: Characters and Strings (STR) Summary Part I...

The First Expert Guide to Static Analysis for Software Security! Creating secure code requires more than just good intentions. Programmers need to know that their code will be safe in an almost infinite number of scenarios and configurations. Static source code analysis gives users the ability to review their work with a fine-toothed comb and uncover the kinds of errors that lead directly to security vulnerabilities. Now, there's a complete guide to static analysis: how it works, how to integrate it into the software development processes, and how to make the most of it during security code review. Static analysis experts Brian Chess and Jacob West look at the most common types of security defects that occur today. They illustrate main points using Java and C code examples taken from real-world security incidents, showing how coding errors are exploited, how they could have been prevented, and how static analysis can rapidly uncover similar mistakes. This book is for everyone concerned with building more secure software: developers, security engineers, analysts, and testers.

What will you learn from this book? Go makes it easy to build software that's simple, reliable, and efficient. And this book makes it easy for programmers like you to get started. Google designed Go for high-performance networking and multiprocessing, but—like Python and JavaScript—the language is easy to read and use. With this practical hands-on guide, you'll learn how to write Go code using clear examples that demonstrate the language in action. Best of all, you'll understand the conventions and techniques that employers want entry-level Go developers to know. Why does this book look so different? Based on the latest research in cognitive science and learning theory, HeadFirst Go uses a visually rich format to engage your mind rather than a text-heavy approach that puts you to sleep. Why waste your time struggling with new concepts? This multisensory learning experience is designed for the way your brain really works.

"What makes this book so important is that it reflects the experiences of two of the industry's most experienced hands at getting real-world engineers to understand just what they're being asked for when they're asked to write secure code. The book reflects Michael Howard's and David LeBlanc's experience in the trenches working with developers years after code was long since shipped, informing them of problems." --From the Foreword by Dan Kaminsky, Director of Penetration Testing, IOActive Eradicate the Most Notorious Insecure Designs and Coding Vulnerabilities Fully updated to cover the latest security issues, 24 Deadly Sins of Software Security reveals the most common design and coding errors and explains how to fix each one—or better yet, avoid them from the start. Michael Howard and David LeBlanc, who teach Microsoft employees and the world how to secure code, have partnered again with John Viega, who uncovered the original 19 deadly programming sins. They have completely revised the book to address the most recent vulnerabilities and have added five brand-new sins. This practical guide covers all platforms, languages, and types of applications. Eliminate these security flaws from your code: SQL injection Web server- and client-related vulnerabilities Use of magic URLs, predictable cookies, and hidden form fields Buffer overruns Format string problems Integer overflows C++ catastrophes Insecure exception handling Command injection Failure to handle errors Information leakage Race conditions Poor usability Not updating easily Executing code with too much privilege Failure to protect stored data Insecure mobile code Use of weak password-based systems Weak random numbers Using cryptography incorrectly Failing to protect network traffic Improper use of PKI Trusting network name resolution

Abstract: "An essential element of secure coding in the Java programming language is well-documented and enforceable coding standards. Coding standards encourage programmers to follow a uniform set of guidelines determined by the requirements of the project and organization, rather than by the programmer's familiarity or preference. Once established, these standards can be used as a metric to evaluate source code (using manual or automated processes). The CERT Oracle Secure Coding Standard for Java provides guidelines for secure coding in the Java programming language. The goal of these guidelines is to eliminate insecure coding practices and undefined behaviors that can lead to exploitable vulnerabilities. Applying this standard will lead to higher quality systems that are robust and more resistant to attack. This report documents the portion of those Java guidelines that are related to concurrency."

Focusing 100% on the exam objectives, OCA: Oracle Certified Associate Java SE 8 Programmer I Study Guide is designed to make you fully prepared for this challenging exam. Between Java 7 and Java 8, Oracle has made the biggest changes to the language in a long time. In particular, developers will need to learn functional programming for the first time to pass the certification. This comprehensive study guide covers all of the key topic areas Java programmers will need to be familiar with, including: Java basics Operators, conditionals and loops String and StringBuilder, Array and ArrayList Methods and encapsulation Inheriting abstract classes and interfaces Exceptions Class design Object-Oriented design principles and design patterns Generics and collections Functional programming Advanced strings and localization Exceptions and assertions IO and NIO Threads Concurrency JDBC With this complete Study Guide, Java developers will gain the information, understanding, and practice they need to pass the OCAJP 8 exam.

If you're an app developer with a solid foundation in Objective-C, this book is an absolute must—chances are very high that your company's iOS applications are vulnerable to attack. That's because malicious attackers now use an arsenal of tools to reverse-engineer, trace, and manipulate applications in ways that most programmers aren't aware of. This guide illustrates several types of iOS attacks, as well as the tools and techniques that hackers use. You'll learn best practices to help protect your applications, and discover how important it is to understand and strategize like your adversary. Examine subtle vulnerabilities in real-world applications—and avoid the same problems in your apps Learn how attackers infect apps with malware through code injection Discover how attackers defeat iOS keychain and data-protection encryption Use a debugger and custom code injection to manipulate the runtime Objective-C environment Prevent attackers from hijacking SSL sessions and stealing traffic Securely delete files and design your apps to prevent forensic data leakage Avoid debugging abuse, validate the integrity of run-time classes, and make your code harder to trace

Become a pro at securing your Python apps with this step-by-step guide About This Book\* Get the only book on the market that will help you master Python security\* Make your programs more robust, secure, and safe for complex-level applications\* This book provides various approaches to securing code that will enable you to implement solutions from the word go Who This Book Is For This book is aimed at Python developers who want to make their programs secure. Basic knowledge of Python is expected. What You Will Learn\* Simulate various attack scenarios\* Perform vulnerability

testing using various tools and techniques\* Use bruteforce to automate data mining\* Identify and mitigate attacks with various OWASP projects\* Perform recon and scanning automation to build your own security toolkit\* Find about phishing and fuzzing in Python\* Conduct network forensic analysis and packet analysis\* Work through offensive programming techniques to keep your code clean and precise  
Python is used for a lot of applications, ranging from building web applications and enterprise application to the world of big data. With everyday attacks on applications by hackers, securing applications has become a critical component for Python developers. Starting with the basics to ensure the fundamentals required for security, you will gradually move on to automating various web application attacks, which can then be used by security engineers to perform automated tests. You will mitigate various application security vulnerabilities and explore the defense mechanisms available for developers in Python. You will then learn about the various phases of network security testing that can be automated and how an engineer can simulate various attacks in controlled manner to scan for vulnerabilities. Next, you will learn how to automate password cracking using Python and focus on fuzzing, a key concept of exploit writing and protocol analysis. After reading this book, you will be able to secure your programs and applications and be ready for any kind of spyware and malware.

NOTE: The OCP Java SE 11 Programmer I Exam 1Z0-815 and Programmer II Exam 1Z0-816 have been retired (as of October 1, 2020), and Oracle has released a new Developer Exam 1Z0-819 to replace the previous exams. The Upgrade Exam 1Z0-817 remains the same. Improve your preparation for the OCP Java SE 11 Developer exam with these comprehensive practice tests OCP Oracle Certified Professional Java SE 11 Developer Practice Tests: Exam 1Z0-819 and Upgrade Exam 1Z0-817 offers readers over 1000 practice questions to help them hone their skills for the challenging 1Z0-819 exam as well as the 1Z0-817 upgrade exam. Covering all the objective domains that help readers master the crucial subject areas covered by the exam, OCP Oracle Certified Professional Java SE 11 Developer Practice Tests provides domain-by-domain questions as well as additional bonus practice exams to further solidify the reader's mastery of its subjects. This book covers topics like: Understanding Java Technology and Environment Working with Java Operators, Primitives, and Strings Creating Methods and Lambda Expressions Designing Classes, Interfaces, Enums, and Annotations Writing Functional Interfaces and Streams Building Modules and Migrating Applications to Modules Applying I/O, NIO.2, JDBC, Threads, and Concurrency Secure Coding in Java SE Application And much more Perfect for anyone studying for the OCP Java SE 11 Developer and Upgrade exams, as well as all those who wish to brush up on their Java programming skills, OCP Oracle Certified Professional Java SE 11 Developer Practice Tests: Exam 1Z0-819 and Upgrade Exam 1Z0-817 is an indispensable resource that has a place on the bookshelf of every Java enthusiast, professional, and student.

"The security of information systems has not improved at a rate consistent with the growth and sophistication of the attacks being made against them. To address this problem, we must improve the underlying strategies and techniques used to create our systems. Specifically, we must build security in from the start, rather than append it as an afterthought. That's the point of Secure Coding in C and C++. In careful detail, this book shows software developers how to build high-quality systems that are less vulnerable to costly and even catastrophic attack. It's a book that every developer should read before the start of any serious project." --Frank Abagnale, author, lecturer, and leading consultant on fraud prevention and secure documents  
Learn the Root Causes of Software Vulnerabilities and How to Avoid Them Commonly exploited software vulnerabilities are usually caused by avoidable software defects. Having analyzed nearly 18,000 vulnerability reports over the past ten years, the CERT/Coordination Center (CERT/CC) has determined that a relatively small number of root causes account for most of them. This book identifies and explains these causes and shows the steps that can be taken to prevent exploitation. Moreover, this book encourages programmers to adopt security best practices and develop a security mindset that can help protect software from tomorrow's attacks, not just today's. Drawing on the CERT/CC's reports and conclusions, Robert Seacord systematically identifies the program errors most likely to lead to security breaches, shows how they can be exploited, reviews the potential consequences, and presents secure alternatives. Coverage includes technical detail on how to Improve the overall security of any C/C++ application Thwart buffer overflows and stack-smashing attacks that exploit insecure string manipulation logic Avoid vulnerabilities and security flaws resulting from the incorrect use of dynamic memory management functions Eliminate integer-related problems: integer overflows, sign errors, and truncation errors Correctly use formatted output functions without introducing format-string vulnerabilities Avoid I/O vulnerabilities, including race conditions  
Secure Coding in C and C++ presents hundreds of examples of secure code, insecure code, and exploits, implemented for Windows and Linux. If you're responsible for creating secure C or C++ software--or for keeping it safe--no other book offers you this much detailed, expert assistance.

Summary OCA Java SE 8 Programmer I Certification Guide prepares you for the 1Z0-808 with complete coverage of the exam. You'll explore important Java topics as you systematically learn what's required to successfully pass the test. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Book To earn the OCA Java SE 8 Programmer I Certification, you have to know your Java inside and out, and to pass the exam you need to understand the test itself. This book cracks open the questions, exercises, and expectations you'll face on the OCA exam so you'll be ready and confident on test day. OCA Java SE 8 Programmer I Certification Guide prepares Java developers for the 1Z0-808 with thorough coverage of Java topics typically found on the exam. Each chapter starts with a list of exam objectives mapped to section numbers, followed by sample questions and exercises that reinforce key concepts. You'll learn techniques and concepts in multiple ways, including memorable analogies, diagrams, flowcharts, and lots of well-commented code. You'll also get the scoop on common exam mistakes and ways to avoid traps and pitfalls. What's Inside Covers all exam topics Hands-on coding exercises Flowcharts, UML diagrams, and other visual aids How to avoid built-in traps and pitfalls Complete coverage of the OCA Java SE 8 Programmer I exam

(1Z0-808) About the Reader Written for developers with a working knowledge of Java who want to earn the OCA Java SE 8 Programmer I Certification. About the Author Mala Gupta is a Java coach and trainer who holds multiple Java certifications. Since 2006 she has been actively supporting Java certification as a path to career advancement. Table of Contents Introduction Java basics Working with Java data types Methods and encapsulation Selected classes from the Java API and arrays Flow control Working with inheritance Exception handling Full mock exam

One of Java's most striking claims is that it provides a secure programming environment. Yet despite endless discussion, few people understand precisely what Java's claims mean and how it backs up those claims. If you're a developer, network administrator or anyone else who must understand or work with Java's security mechanisms, Java Security is the in-depth exploration you need. Java Security, 2nd Edition, focuses on the basic platform features of Java that provide security--the class loader, the bytecode verifier, and the security manager--and recent additions to Java that enhance this security model: digital signatures, security providers, and the access controller. The book covers the security model of Java 2, Version 1.3, which is significantly different from that of Java 1.1. It has extensive coverage of the two new important security APIs: JAAS (Java Authentication and Authorization Service) and JSSE (Java Secure Sockets Extension). Java Security, 2nd Edition, will give you a clear understanding of the architecture of Java's security model and how to use that model in both programming and administration. The book is intended primarily for programmers who want to write secure Java applications. However, it is also an excellent resource for system and network administrators who are interested in Java security, particularly those who are interested in assessing the risk of using Java and need to understand how the security model works in order to assess whether or not Java meets their security needs.

A detailed introduction to the C programming language for experienced programmers. The world runs on code written in the C programming language, yet most schools begin the curriculum with Python or Java. Effective C bridges this gap and brings C into the modern era--covering the modern C17 Standard as well as potential C2x features. With the aid of this instant classic, you'll soon be writing professional, portable, and secure C programs to power robust systems and solve real-world problems. Robert C. Seacord introduces C and the C Standard Library while addressing best practices, common errors, and open debates in the C community. Developed together with other C Standards committee experts, Effective C will teach you how to debug, test, and analyze C programs. You'll benefit from Seacord's concise explanations of C language constructs and behaviors, and from his 40 years of coding experience. You'll learn:

- How to identify and handle undefined behavior in a C program
- The range and representations of integers and floating-point values
- How dynamic memory allocation works and how to use nonstandard functions
- How to use character encodings and types
- How to perform I/O with terminals and filesystems using C Standard streams and POSIX file descriptors
- How to understand the C compiler's translation phases and the role of the preprocessor
- How to test, debug, and analyze C programs

Effective C will teach you how to write professional, secure, and portable C code that will stand the test of time and help strengthen the foundation of the computing world.

Understand application security: We can read about numerous successful attacks on well-known web applications on a weekly basis. Reason enough to study the background of "Web Application Security" of custom-made / self-developed applications - no matter if these are used only internally or with public access. This book DOES NOT cover related topics like secure (network) infrastructures, operating system security, patch management, firewall architectures etc. but instead focuses only at the application level - the central field of activity of a software developer. Web applications are a generic expression for Internet applications Intranet applications Cloud services Web portals Web services Web APIs Table of Contents: The most common / typical attacks against web applications are: [01] Code/Command Injection in general[02] (No)SQL Code Injection[03] Cross-Site Request Forgery (CSRF)[04] Cross-Site Scripting (XSS)[05] Open Redirection[06] Remote File Inclusion (RFI) and Local File Inclusion (LFI)[07] Clickjacking[08] Session-Hijacking[09] Information Disclosure[10] Attacks on Weaknesses of the Authentication[11] Denial of Service[12] Middleware[13] Third-Party Softwar

The official study guide for the entry-level Oracle Certified Associate exam for Java Programmers—fully updated for Java SE 8 Confidently prepare for the OCA Java SE 8 Programmer I exam with this thoroughly revised, up-to-date guide from Oracle Press. Featuring step-by-step exercises, comprehensive chapter self-tests, and two complete downloadable practice exams, this volume provides an integrated, easy-to-follow study system based on a proven methodology. OCA Java SE 8 Programmer I Study Guide (Exam 1Z0-808) offers the most complete and in-depth coverage of all of the exam objectives, and also serves as an essential on-the-job reference for Java developers. You'll have access to a total of more than 250 challenging practice questions that precisely mirror the content of the live exam—no other guide on the market provides the same level of accuracy and detail. Questions accurately simulate the type and style of questions found on the actual test Includes special "Exam Watch," "Inside the Exam," and "On the Job" sections Downloadable MAC and PC compatible test engine includes two complete practice exams

The only security book to be chosen as a Dr. Dobbs Jolt Award Finalist since Bruce Schneier's Secrets and Lies and Applied Cryptography! Adam Shostack is responsible for security development lifecycle threat modeling at Microsoft and is one of a handful of threat modeling experts in the world. Now, he is sharing his considerable expertise into this unique book. With pages of specific actionable advice, he details how to build better security into the design of systems, software, or services from the outset. You'll explore various threat modeling approaches, find out how to test your designs against threats, and learn effective ways to address threats that have been validated at Microsoft and other top companies. Systems security managers, you'll find tools and a framework for structured thinking about what can go wrong. Software developers, you'll appreciate the jargon-free and accessible introduction to this essential skill. Security professionals, you'll learn to discern changing threats and discover the easiest ways to adopt a structured approach to threat modeling. Provides a unique how-to for security and software developers who need to design secure products and

systems and test their designs Explains how to threat model and explores various threat modeling approaches, such as asset-centric, attacker-centric and software-centric Provides effective approaches and techniques that have been proven at Microsoft and elsewhere Offers actionable how-to advice not tied to any specific software, operating system, or programming language Authored by a Microsoft professional who is one of the most prominent threat modeling experts in the world As more software is delivered on the Internet or operates on Internet-connected devices, the design of secure software is absolutely critical. Make sure you're ready with Threat Modeling: Designing for Security.

Test your knowledge and prepare for the OCA/OCP exams OCA/OCP Java SE 8 Programmer Practice Tests complements the Sybex OCA: Oracle Certified Associate Java SE 8 Programmer I Certification Study Guide and the OCP: Oracle Certified Professional Java SE 8 Programmer II Study Guide for exams 1Z0-808 and 1Z0-809 by providing last minute review of 100% of exam objectives. Get the advantage of over 1,000 expert crafted questions that not only provide the answer, but also give detailed explanations. You will have access to unique practice questions that cover all 21 objective domains in the OCA/OCP exams in the format you desire--test questions can also be accessed via the Sybex interactive learning environment. Two additional practice exams will ensure that you are ready for exam day. Whether you have studied with Sybex study guides for your OCA/OCP or have used another brand, this is your chance to test your skills. Access to all practice questions online with the Sybex interactive learning environment Over 1,000 unique practice questions and 2 practice exams include expert explanations Covers 100% of all 21 OCA/OCP objective domains for Exams 1Z0-808 and 1Z0-809 Studying the objectives are one thing, but diving deeper and uncovering areas where further attention is needed can increase your chance of exam day success. Full coverage of all domains shows you what to expect on exam day, and accompanying explanations help you pinpoint which objectives deserve another look.

Over 75% of network attacks are targeted at the web application layer. This book provides explicit hacks, tutorials, penetration tests, and step-by-step demonstrations for security professionals and Web application developers to defend their most vulnerable applications. This book defines Web application security, why it should be addressed earlier in the lifecycle in development and quality assurance, and how it differs from other types of Internet security. Additionally, the book examines the procedures and technologies that are essential to developing, penetration testing and releasing a secure Web application. Through a review of recent Web application breaches, the book will expose the prolific methods hackers use to execute Web attacks using common vulnerabilities such as SQL Injection, Cross-Site Scripting and Buffer Overflows in the application layer. By taking an in-depth look at the techniques hackers use to exploit Web applications, readers will be better equipped to protect confidential. The Yankee Group estimates the market for Web application-security products and services will grow to \$1.74 billion by 2007 from \$140 million in 2002 Author Michael Cross is a highly sought after speaker who regularly delivers Web Application presentations at leading conferences including: Black Hat, TechnoSecurity, CanSec West, Shmoo Con, Information Security, RSA Conferences, and more

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