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Titolo	The Computer Security Workbook : A Course Companion Resource // by Juan Tapiador
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Descrizione fisica	1 online resource (205 pages)
Collana	Undergraduate Topics in Computer Science, , 2197-1781
Disciplina	005.8076
Soggetti	Data protection Computer networks - Security measures Computer science Data and Information Security Mobile and Network Security Computer Science Logic and Foundations of Programming
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Nota di contenuto	1. Computer Security Concepts -- 2. Authentication -- 3. Access Control -- 4. TCP/IP Security -- 5. Firewalls and Intrusion Detection Systems -- 6. Transport Layer Security -- 7. Vulnerabilities and Attacks -- 8. Malware.
Sommario/riassunto	Mastering computer security requires more than just technical knowledge of software, systems and networks—it demands analytical thinking, a problem-solving mindset, and creative reasoning. These skills are best cultivated through practical challenges and structured problem-solving. This book presents a collection of questions and problems on a wide range of topics typically taught in introductory computer security courses, including basic concepts and principles, authentication techniques, access control models and methods, network security, software vulnerabilities, and malware. Topics and features: The exercises range in complexity to ensure progressive skill development—from foundational knowledge (e.g., defining and understanding basic security ideas and principles) to more advanced problem-solving (e.g., applying knowledge to analyze a security protocol, synthesizing concepts, making judgments about a design, or

creating solutions). Each exercise is accompanied by a solution intended to serve as a learning aid and facilitate self-assessment. Some solutions include historical notes and additional references that could be useful to readers who are willing to explore a subject in more depth. The problems include practical scenarios and real-world cases, ensuring that readers understand how principles are applied in practice. The content is organized into sections and chapters that are mostly self-contained, so readers can explore them in any order. The material is flexible and can be adapted for various courses and audiences, allowing instructors and learners to select topics based on their needs. This unique textbook/reference offers broad appeal: The exercises are intended to complement other learning materials and are tailored to different skill levels, allowing beginners to build a strong foundation while offering advanced challenges to more experienced learners. Juan Tapiador is Full Professor in the Department of Computer Science and Engineering at the Universidad Carlos III de Madrid, Spain.
