

Python Web Penetration Testing Cookbook

This book gives you an arsenal of Python scripts perfect to use or to customize your needs for each stage of the testing process. Each chapter takes you step by step through the methods of designing and modifying scripts to attack web apps. You will learn how to collect both open and hidden information from websites to further your attacks, identify vulnerabilities, perform SQL Injections, exploit cookies, and enumerate poorly configured systems. You will also discover how to crack encryption, create payloads to mimic malware, and create tools to output your findings into presentable formats for reporting to your employers.

Discover the most common web vulnerabilities and prevent them from becoming a threat to your site's security

Key Features

- Familiarize yourself with the most common web vulnerabilities
- Conduct a preliminary assessment of attack surfaces and run exploits in your lab
- Explore new tools in the Kali Linux ecosystem for web penetration testing

Book Description

Web applications are a huge point of attack for malicious hackers and a critical area for security professionals and penetration testers to lock down and secure. Kali Linux is a Linux-based penetration testing platform that provides a broad array of testing tools, many of which can be used to execute web penetration testing. Kali Linux Web Penetration Testing Cookbook gives you the skills you need to cover every stage of a penetration test - from gathering information about the system and application, to identifying vulnerabilities through manual testing. You will also cover the use of vulnerability scanners and look at basic and advanced exploitation techniques that may lead to a full system compromise. You will start by setting up a testing laboratory, exploring the latest features of tools included in Kali Linux and performing a wide range of tasks with OWASP ZAP, Burp Suite and other web proxies and security testing tools. As you make your way through the book, you will learn how to use automated scanners to find security flaws in web applications and understand how to bypass basic security controls. In the concluding chapters, you will look at what you have learned in the context of the Open Web Application Security Project (OWASP) and the top 10 web application vulnerabilities you are most likely to encounter, equipping you with the ability to combat them effectively. By the end of this book, you will have acquired the skills you need to identify, exploit, and prevent web application vulnerabilities. What you will learn

- Set up a secure penetration testing laboratory
- Use proxies, crawlers, and spiders to investigate an entire website
- Identify cross-site scripting and client-side vulnerabilities
- Exploit vulnerabilities that allow the insertion of code into web applications
- Exploit vulnerabilities that require complex setups
- Improve testing efficiency using automated vulnerability scanners
- Learn how to circumvent security controls put in place to prevent attacks

Who this book is for

Kali Linux Web Penetration Testing Cookbook is for IT professionals, web developers, security enthusiasts, and security professionals who want an accessible reference on how to find, exploit, and prevent security vulnerabilities in web applications. The basics of operating a Linux environment and prior exposure to security technologies and tools are necessary.

Over 100 recipes for penetration testing using Metasploit and virtual machines

Key Features

- Special focus on the latest operating systems, exploits, and penetration testing techniques
- Learn new anti-virus evasion techniques and use Metasploit to evade countermeasures
- Automate post exploitation with AutoRunScript
- Exploit Android devices, record audio and video, send and read SMS, read call logs, and much more
- Build and analyze Metasploit modules in Ruby
- Integrate Metasploit with other penetration testing tools

Book Description

Metasploit is the world's leading penetration testing tool and helps security and IT professionals find, exploit, and validate vulnerabilities. Metasploit allows penetration testing automation, password auditing, web application scanning, social engineering, post exploitation, evidence collection, and reporting. Metasploit's integration with InsightVM (or Nexpose), Nessus, OpenVas, and other vulnerability scanners provides a validation solution that simplifies vulnerability prioritization and remediation reporting. Teams can collaborate in Metasploit and present their findings in consolidated reports. In this book, you will go through great recipes that will allow you to start using Metasploit effectively. With an ever increasing level of complexity, and covering everything from the fundamentals to more advanced features in Metasploit, this book is not just for beginners but also for professionals keen to master this awesome tool. You will begin by building your lab environment, setting up Metasploit, and learning how to perform intelligence gathering, threat modeling, vulnerability analysis, exploitation, and post exploitation—all inside Metasploit. You will learn how to create and customize payloads to evade anti-virus software and bypass an organization's defenses, exploit server vulnerabilities, attack client systems, compromise mobile phones, automate post exploitation, install backdoors, run keyloggers, hijack webcams, port public exploits to the framework, create your own modules, and much more. What you will learn

- Set up a complete penetration testing environment using Metasploit and virtual machines
- Master the world's leading penetration testing tool and use it in professional penetration testing
- Make the most of Metasploit with PostgreSQL, importing scan results, using workspaces, hosts, loot, notes, services, vulnerabilities, and exploit results
- Use Metasploit with the Penetration Testing Execution Standard methodology
- Use MSFvenom efficiently to generate payloads and backdoor files, and create shellcode
- Leverage Metasploit's advanced options, upgrade sessions, use proxies, use Meterpreter sleep control, and change timeouts to be stealthy

Who this book is for

If you are a Security professional or pentester and want to get into vulnerability exploitation and make the most of the Metasploit framework, then this book is for you. Some prior understanding of penetration testing and Metasploit is required.

Offering developers an inexpensive way to include testing as part of the development cycle, this cookbook features scores of recipes for testing Web applications, from relatively simple solutions to complex ones that combine several solutions.

By taking you through the development of a real web application from beginning to end, the second edition of this hands-on guide demonstrates the practical advantages of test-driven development (TDD) with Python. You'll learn how to write and run tests before building each part of your app, and then develop the minimum amount of code required to pass

those tests. The result? Clean code that works. In the process, you'll learn the basics of Django, Selenium, Git, jQuery, and Mock, along with current web development techniques. If you're ready to take your Python skills to the next level, this book—updated for Python 3.6—clearly demonstrates how TDD encourages simple designs and inspires confidence. Dive into the TDD workflow, including the unit test/code cycle and refactoring Use unit tests for classes and functions, and functional tests for user interactions within the browser Learn when and how to use mock objects, and the pros and cons of isolated vs. integrated tests Test and automate your deployments with a staging server Apply tests to the third-party plugins you integrate into your site Run tests automatically by using a Continuous Integration environment Use TDD to build a REST API with a front-end Ajax interface

Over 50+ hands-on recipes to help you pen test networks using Python, discover vulnerabilities, and find a recovery path About This Book Learn to detect and avoid various types of attack that put system privacy at risk Enhance your knowledge of wireless application concepts and information gathering through practical recipes Learn a pragmatic way to penetration-test using Python, build efficient code, and save time Who This Book Is For If you are a developer with prior knowledge of using Python for penetration testing and if you want an overview of scripting tasks to consider while penetration testing, this book will give you a lot of useful code for your toolkit. What You Will Learn Learn to configure Python in different environment setups. Find an IP address from a web page using BeautifulSoup and Scrapy Discover different types of packet sniffing script to sniff network packets Master layer-2 and TCP/ IP attacks Master techniques for exploit development for Windows and Linux Incorporate various network- and packet-sniffing techniques using Raw sockets and Scrapy In Detail Penetration testing is the use of tools and code to attack a system in order to assess its vulnerabilities to external threats. Python allows pen testers to create their own tools. Since Python is a highly valued pen-testing language, there are many native libraries and Python bindings available specifically for pen-testing tasks. Python Penetration Testing Cookbook begins by teaching you how to extract information from web pages. You will learn how to build an intrusion detection system using network sniffing techniques. Next, you will find out how to scan your networks to ensure performance and quality, and how to carry out wireless pen testing on your network to avoid cyber attacks. After that, we'll discuss the different kinds of network attack. Next, you'll get to grips with designing your own torrent detection program. We'll take you through common vulnerability scenarios and then cover buffer overflow exploitation so you can detect insecure coding. Finally, you'll master PE code injection methods to safeguard your network. Style and approach This book takes a recipe-based approach to solving real-world problems in pen testing. It is structured in stages from the initial assessment of a system through exploitation to post-exploitation tests, and provides scripts that can be used or modified for in-depth penetration testing.

Build state-of-the-art web applications quickly and efficiently using Flask and related technologies with Python 3 Key Features Updated to Flask 1.0.3 and Python 3.7 with coverage of Microservices Get the most out of the powerful Flask framework and maintain the flexibility of your design choices Write cleaner and maintainable code with the help of sample apps Book Description Flask, the lightweight Python web framework, is popular due to its powerful modular design that lets you build scalable web apps. With this recipe-based guide, you'll explore modern solutions and best practices for Flask web development. Updated to the latest version of Flask and Python 3, this second edition of Flask Framework Cookbook moves away from some of the old and obsolete libraries and introduces recipes on bleeding edge technologies. You'll discover different ways of using Flask to create, deploy, and manage microservices. This Flask Python book starts by covering the different configurations that a Flask application can make use of, and then helps you work with templates and learn about the ORM and view layers. You'll also be able to write an admin interface and get to grips with debugging and logging errors. Finally, you'll grasp a variety of deployment and post-deployment techniques for platforms such as Apache, Tornado, and Heroku. By the end of this book, you'll have gained all the knowledge you need to write Flask applications in the best possible way and scale them using standard industry practices. What you will learn Explore web application development in Flask, right from installation to post-deployment stages Make use of advanced templating and data modeling techniques Discover effective debugging, logging, and error handling techniques in Flask Integrate Flask with different technologies such as Redis, Sentry, and MongoDB Deploy and package Flask applications with Docker and Kubernetes Design scalable microservice architecture using AWS LambdaContinuous integration and Continuous deployment Who this book is for If you are a web developer who wants to learn more about developing scalable and production-ready applications in Flask, this is the book for you. You'll also find this book useful if you are already aware of Flask's major extensions and want to use them for better application development. Basic Python programming experience along with basic understanding of Flask is assumed.

Build your defense against web attacks with Kali Linux, including command injection flaws, crypto implementation layers, and web application security holes Key Features Know how to set up your lab with Kali Linux Discover the core concepts of web penetration testing Get the tools and techniques you need with Kali Linux Book Description Web Penetration Testing with Kali Linux - Third Edition shows you how to set up a lab, helps you understand the nature and mechanics of attacking websites, and explains classical attacks in great depth. This edition is heavily updated for the latest Kali Linux changes and the most recent attacks. Kali Linux shines when it comes to client-side attacks and fuzzing in particular. From the start of the book, you'll be given a thorough grounding in the concepts of hacking and penetration testing, and you'll see the tools used in Kali Linux that relate to web application hacking. You'll gain a deep understanding of classicalSQL, command-injection flaws, and the many ways to exploit these flaws. Web penetration testing also needs a general overview of client-side attacks, which is rounded out by a long discussion of scripting and input validation flaws. There is also an important chapter on cryptographic implementation flaws, where we discuss the most recent problems with cryptographic layers in the networking stack. The importance of these attacks cannot be overstated, and defending against them is relevant to most internet users and, of course, penetration testers. At the end of the book, you'll use an

automated technique called fuzzing to identify flaws in a web application. Finally, you'll gain an understanding of web application vulnerabilities and the ways they can be exploited using the tools in Kali Linux. What you will learn Learn how to set up your lab with Kali Linux Understand the core concepts of web penetration testing Get to know the tools and techniques you need to use with Kali Linux Identify the difference between hacking a web application and network hacking Expose vulnerabilities present in web servers and their applications using server-side attacks Understand the different techniques used to identify the flavor of web applications See standard attacks such as exploiting cross-site request forgery and cross-site scripting flaws Get an overview of the art of client-side attacks Explore automated attacks such as fuzzing web applications Who this book is for Since this book sets out to cover a large number of tools and security fields, it can work as an introduction to practical security skills for beginners in security. In addition, web programmers and also system administrators would benefit from this rigorous introduction to web penetration testing. Basic system administration skills are necessary, and the ability to read code is a must.

This book gives you the skills you need to use Python for penetration testing, with the help of detailed code examples. This book has been updated for Python 3.6.3 and Kali Linux 2018.1. Key Features Detect and avoid various attack types that put the privacy of a system at risk Leverage Python to build efficient code and eventually build a robust environment Learn about securing wireless applications and information gathering on a web server Book Description This book gives you the skills you need to use Python for penetration testing (pentesting), with the help of detailed code examples. We start by exploring the basics of networking with Python and then proceed to network hacking. Then, you will delve into exploring Python libraries to perform various types of pentesting and ethical hacking techniques. Next, we delve into hacking the application layer, where we start by gathering information from a website. We then move on to concepts related to website hacking—such as parameter tampering, DDoS, XSS, and SQL injection. By reading this book, you will learn different techniques and methodologies that will familiarize you with Python pentesting techniques, how to protect yourself, and how to create automated programs to find the admin console, SQL injection, and XSS attacks. What you will learn The basics of network pentesting including network scanning and sniffing Wireless, wired attacks, and building traps for attack and torrent detection Web server footprinting and web application attacks, including the XSS and SQL injection attack Wireless frames and how to obtain information such as SSID, BSSID, and the channel number from a wireless frame using a Python script The importance of web server signatures, email gathering, and why knowing the server signature is the first step in hacking Who this book is for If you are a Python programmer, a security researcher, or an ethical hacker and are interested in penetration testing with the help of Python, then this book is for you. Even if you are new to the field of ethical hacking, this book can help you find the vulnerabilities in your system so that you are ready to tackle any kind of attack or intrusion.

If you are a security professional, pentester, or anyone interested in getting to grips with wireless penetration testing, this is the book for you. Some familiarity with Kali Linux and wireless concepts is beneficial.

If you are interested in learning how to test web applications and the web part of mobile applications using Burp, then this is the book for you. It is specifically designed to meet your needs if you have basic experience in using Burp and are now aiming to become a professional Burp user.

This book follows a Cookbook style with recipes explaining the steps for penetration testing with WLAN, VOIP, and even cloud computing. There is plenty of code and commands used to make your learning curve easy and quick. This book targets both professional penetration testers as well as new users of Metasploit, who wish to gain expertise over the framework and learn an additional skill of penetration testing, not limited to a particular OS. The book requires basic knowledge of scanning, exploitation, and the Ruby language.

A guide to the most frequently used OpenSSL features and commands, written by Ivan Ristic. Comprehensive coverage of OpenSSL installation, configuration, and key and certificate management Includes SSL/TLS Deployment Best Practices, a design and deployment guide Written by a well-known practitioner in the field and the author of SSL Labs and the SSL/TLS configuration assessment tool Available in a variety of digital formats (PDF, EPUB, Mobi/Kindle); no DRM Continuously updated OpenSSL Cookbook is built around one chapter from Bulletproof SSL/TLS and PKI, a larger work that provides complete coverage of SSL/TLS and PKI topics. To download your free copy in various formats, visit feistyduck.com/books/openssl-cookbook/

Your one-stop guide to using Python, creating your own hacking tools, and making the most out of resources available for this programming language Key Features Comprehensive information on building a web application penetration testing framework using Python Master web application penetration testing using the multi-paradigm programming language Python Detect vulnerabilities in a system or application by writing your own Python scripts Book Description Python is an easy-to-learn and cross-platform programming language that has unlimited third-party libraries. Plenty of open source hacking tools are written in Python, which can be easily integrated within your script. This book is packed with step-by-step instructions and working examples to make you a skilled penetration tester. It is divided into clear bite-sized chunks, so you can learn at your own pace and focus on the areas of most interest to you. This book will teach you how to code a reverse shell and build an anonymous shell. You will also learn how to hack passwords and perform a privilege escalation on Windows with practical examples. You will set up your own virtual hacking environment in VirtualBox, which will help you run multiple operating systems for your testing environment. By the end of this book, you will have learned how to code your own scripts and mastered ethical hacking from scratch. What you will learn Code your own reverse shell (TCP and HTTP) Create your own anonymous shell by interacting with Twitter, Google Forms, and SourceForge Replicate Metasploit features and build an advanced shell Hack passwords using multiple techniques (API hooking, keyloggers, and clipboard hijacking) Exfiltrate data from your target Add encryption (AES, RSA, and XOR) to your shell to learn how cryptography is being abused by malware Discover privilege escalation on Windows with practical examples Countermeasures against most attacks Who this book is for This book is for ethical hackers; penetration testers; students preparing for OSCP, OSCE, GPEN, GXPEN, and CEH; information security professionals; cybersecurity consultants; system and network security administrators; and programmers who are keen on learning all about penetration testing.

Over 120 recipes to perform advanced penetration testing with Kali Linux About This Book Practical recipes to conduct effective penetration testing using the powerful Kali Linux Leverage tools like Metasploit, Wireshark, Nmap, and many more to detect vulnerabilities with ease Confidently perform networking and application attacks using task-oriented recipes Who This Book Is For This book is aimed at IT security professionals, pentesters, and security analysts who have basic knowledge of Kali Linux and want to conduct advanced penetration testing techniques. What You Will Learn Installing, setting up and customizing Kali for pentesting on multiple platforms Pentesting routers and embedded devices Bug hunting 2017 Pwning and escalating through corporate network Buffer overflows 101 Auditing wireless networks Fiddling around with software-defined radio Hacking on the run with NetHunter Writing good quality reports In Detail With the current rate of hacking, it is very important to pentest your environment in order to ensure advanced-level security. This book is packed with practical recipes that will quickly get you started with Kali Linux (version 2016.2) according to your needs, and move on to core functionalities. This book will start with the installation and configuration of Kali Linux so that you can perform your tests. You will learn how to plan attack strategies and perform web application exploitation using tools such as Burp, and Jexboss. You will also learn how to perform network exploitation using Metasploit, Sparta, and Wireshark. Next, you will perform wireless and password attacks using tools such as Patator, John the Ripper, and

airoscrip-ng. Lastly, you will learn how to create an optimum quality pentest report! By the end of this book, you will know how to conduct advanced penetration testing thanks to the book's crisp and task-oriented recipes. Style and approach This is a recipe-based book that allows you to venture into some of the most cutting-edge practices and techniques to perform penetration testing with Kali Linux.

Over 60 powerful recipes to scan, exploit, and crack wireless networks for ethical purposes About This Book Expose wireless security threats through the eyes of an attacker, Recipes to help you proactively identify vulnerabilities and apply intelligent remediation, Acquire and apply key wireless pentesting skills used by industry experts Who This Book Is For If you are a security professional, administrator, and a network professional who wants to enhance their wireless penetration testing skills and knowledge then this book is for you. Some prior experience with networking security and concepts is expected. What You Will Learn Deploy and configure a wireless cyber lab that resembles an enterprise production environment Install Kali Linux 2017.3 on your laptop and configure the wireless adapter Learn the fundamentals of commonly used wireless penetration testing techniques Scan and enumerate Wireless LANs and access points Use vulnerability scanning techniques to reveal flaws and weaknesses Attack Access Points to gain access to critical networks In Detail More and more organizations are moving towards wireless networks, and Wi-Fi is a popular choice. The security of wireless networks is more important than ever before due to the widespread usage of Wi-Fi networks. This book contains recipes that will enable you to maximize the success of your wireless network testing using the advanced ethical hacking features of Kali Linux. This book will go through techniques associated with a wide range of wireless penetration tasks, including WLAN discovery scanning, WEP cracking, WPA/WPA2 cracking, attacking access point systems, operating system identification, vulnerability mapping, and validation of results. You will learn how to utilize the arsenal of tools available in Kali Linux to penetrate any wireless networking environment. You will also be shown how to identify remote services, how to assess security risks, and how various attacks are performed. By finishing the recipes, you will feel confident conducting wireless penetration tests and will be able to protect yourself or your organization from wireless security threats. Style and approach The book will provide the foundation principles, techniques, and in-depth analysis to effectively master wireless penetration testing. It will aid you in understanding and mastering many of the most powerful and useful wireless testing techniques in the industry.

Explore real-world threat scenarios, attacks on mobile applications, and ways to counter them About This Book Gain insights into the current threat landscape of mobile applications in particular Explore the different options that are available on mobile platforms and prevent circumventions made by attackers This is a step-by-step guide to setting up your own mobile penetration testing environment Who This Book Is For If you are a mobile application evangelist, mobile application developer, information security practitioner, penetration tester on infrastructure web applications, an application security professional, or someone who wants to learn mobile application security as a career, then this book is for you. This book will provide you with all the skills you need to get started with Android and iOS pen-testing. What You Will Learn Gain an in-depth understanding of Android and iOS architecture and the latest changes Discover how to work with different tool suites to assess any application Develop different strategies and techniques to connect to a mobile device Create a foundation for mobile application security principles Grasp techniques to attack different components of an Android device and the different functionalities of an iOS device Get to know secure development strategies for both iOS and Android applications Gain an understanding of threat modeling mobile applications Get an in-depth understanding of both Android and iOS implementation vulnerabilities and how to provide counter-measures while developing a mobile app In Detail Mobile security has come a long way over the last few years. It has transitioned from "should it be done?" to "it must be done!" Alongside the growing number of devices and applications, there is also a growth in the volume of Personally identifiable information (PII), Financial Data, and much more. This data needs to be secured. This is why Pen-testing is so important to modern application developers. You need to know how to secure user data, and find vulnerabilities and loopholes in your application that might lead to security breaches. This book gives you the necessary skills to security test your mobile applications as a beginner, developer, or security practitioner. You'll start by discovering the internal components of an Android and an iOS application. Moving ahead, you'll understand the inter-process working of these applications. Then you'll set up a test environment for this application using various tools to identify the loopholes and vulnerabilities in the structure of the applications. Finally, after collecting all information about these security loop holes, we'll start securing our applications from these threats. Style and approach This is an easy-to-follow guide full of hands-on examples of real-world attack simulations. Each topic is explained in context with respect to testing, and for the more inquisitive, there are more details on the concepts and techniques used for different platforms.

Over 80 recipes on how to identify, exploit, and test web application security with Kali Linux 2 About This Book Familiarize yourself with the most common web vulnerabilities a web application faces, and understand how attackers take advantage of them Set up a penetration testing lab to conduct a preliminary assessment of attack surfaces and run exploits Learn how to prevent vulnerabilities in web applications before an attacker can make the most of it Who This Book Is For This book is for IT professionals, web developers, security enthusiasts, and security professionals who want an accessible reference on how to find, exploit, and prevent security vulnerabilities in web applications. You should know the basics of operating a Linux environment and have some exposure to security technologies and tools. What You Will Learn Set up a penetration testing laboratory in a secure way Find out what information is useful to gather when performing penetration tests and where to look for it Use crawlers and spiders to investigate an entire website in minutes Discover security vulnerabilities in web applications in the web browser and using command-line tools Improve your testing efficiency with the use of automated vulnerability scanners Exploit vulnerabilities that require a complex setup, run custom-made exploits, and prepare for extraordinary scenarios Set up Man in the Middle attacks and use them to identify and exploit security flaws within the communication between users and the web server Create a malicious site that will find and exploit vulnerabilities in the user's web browser Repair the most common web vulnerabilities and understand how to prevent them becoming a threat to a site's security In Detail Web applications are a huge point of attack for malicious hackers and a critical area for security professionals and penetration testers to lock down and secure. Kali Linux is a Linux-based penetration testing platform and operating system that provides a huge array of testing tools, many of which can be used specifically to execute web penetration testing. This book will teach you, in the form step-by-step recipes, how to detect a wide array of vulnerabilities, exploit them to analyze their consequences, and ultimately buffer attackable surfaces so applications are more secure, for you and your users. Starting from the setup of a testing

laboratory, this book will give you the skills you need to cover every stage of a penetration test: from gathering information about the system and the application to identifying vulnerabilities through manual testing and the use of vulnerability scanners to both basic and advanced exploitation techniques that may lead to a full system compromise. Finally, we will put this into the context of OWASP and the top 10 web application vulnerabilities you are most likely to encounter, equipping you with the ability to combat them effectively. By the end of the book, you will have the required skills to identify, exploit, and prevent web application vulnerabilities. Style and approach Taking a recipe-based approach to web security, this book has been designed to cover each stage of a penetration test, with descriptions on how tools work and why certain programming or configuration practices can become security vulnerabilities that may put a whole system, or network, at risk. Each topic is presented as a sequence of tasks and contains a proper explanation of why each task is performed and what it accomplishes.

Utilize Python scripting to execute effective and efficient penetration tests About This Book Understand how and where Python scripts meet the need for penetration testing Familiarise yourself with the process of highlighting a specific methodology to exploit an environment to fetch critical data Develop your Python and penetration testing skills with real-world examples Who This Book Is For If you are a security professional or researcher, with knowledge of different operating systems and a conceptual idea of penetration testing, and you would like to grow your knowledge in Python, then this book is ideal for you. What You Will Learn Familiarise yourself with the generation of Metasploit resource files Use the Metasploit Remote Procedure Call (MSFRPC) to automate exploit generation and execution Use Python's Scapy, network, socket, office, Nmap libraries, and custom modules Parse Microsoft Office spreadsheets and eXtensible Markup Language (XML) data files Write buffer overflows and reverse Metasploit modules to expand capabilities Exploit Remote File Inclusion (RFI) to gain administrative access to systems with Python and other scripting languages Crack an organization's Internet perimeter Chain exploits to gain deeper access to an organization's resources Interact with web services with Python In Detail Python is a powerful new-age scripting platform that allows you to build exploits, evaluate services, automate, and link solutions with ease. Python is a multi-paradigm programming language well suited to both object-oriented application development as well as functional design patterns. Because of the power and flexibility offered by it, Python has become one of the most popular languages used for penetration testing. This book highlights how you can evaluate an organization methodically and realistically. Specific tradecraft and techniques are covered that show you exactly when and where industry tools can and should be used and when Python fits a need that proprietary and open source solutions do not. Initial methodology, and Python fundamentals are established and then built on. Specific examples are created with vulnerable system images, which are available to the community to test scripts, techniques, and exploits. This book walks you through real-world penetration testing challenges and how Python can help. From start to finish, the book takes you through how to create Python scripts that meet relative needs that can be adapted to particular situations. As chapters progress, the script examples explain new concepts to enhance your foundational knowledge, culminating with you being able to build multi-threaded security tools, link security tools together, automate reports, create custom exploits, and expand Metasploit modules. Style and approach This book is a practical guide that will help you become better penetration testers and/or Python security tool developers. Each chapter builds on concepts and tradecraft using detailed examples in test environments that you can simulate.

Unleash the power of Python scripting to execute effective and efficient penetration tests About This Book- Sharpen your pentesting skills with Python- Develop your fluency with Python to write sharper scripts for rigorous security testing- Get stuck into some of the most powerful tools in the security world Who This Book Is For If you are a Python programmer or a security researcher who has basic knowledge of Python programming and wants to learn about penetration testing with the help of Python, this course is ideal for you. Even if you are new to the field of ethical hacking, this course can help you find the vulnerabilities in your system so that you are ready to tackle any kind of attack or intrusion. What You Will Learn- Familiarize yourself with the generation of Metasploit resource files and use the Metasploit Remote Procedure Call to automate exploit generation and execution- Exploit the Remote File Inclusion to gain administrative access to systems with Python and other scripting languages- Crack an organization's Internet perimeter and chain exploits to gain deeper access to an organization's resources- Explore wireless traffic with the help of various programs and perform wireless attacks with Python programs- Gather passive information from a website using automated scripts and perform XSS, SQL injection, and parameter tampering attacks- Develop complicated header-based attacks through Python In Detail Cybercriminals are always one step ahead, when it comes to tools and techniques. This means you need to use the same tools and adopt the same mindset to properly secure your software. This course shows you how to do just that, demonstrating how effective Python can be for powerful pentesting that keeps your software safe. Comprising of three key modules, follow each one to push your Python and security skills to the next level. In the first module, we'll show you how to get to grips with the fundamentals. This means you'll quickly find out how to tackle some of the common challenges facing pentesters using custom Python tools designed specifically for your needs. You'll also learn what tools to use and when, giving you complete confidence when deploying your pentester tools to combat any potential threat. In the next module you'll begin hacking into the application layer. Covering everything from parameter tampering, DDoS, XXS and SQL injection, it will build on the knowledge and skills you learned in the first module to make you an even more fluent security expert. Finally in the third module, you'll find more than 60 Python pentesting recipes. We think this will soon become your trusted resource for any pentesting situation. This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It includes content from the following Packt products:- Learning Penetration Testing with Python by Christopher Duffy- Python Penetration Testing Essentials by Mohit- Python Web Penetration Testing Cookbook by Cameron Buchanan, Terry Ip, Andrew Mabbitt, Benjamin May and Dave Mound Style and approach This course provides a quick access to powerful, modern tools, and customizable scripts to kick-start the

creation of your own Python web penetration testing toolbox.

This cookbook is written as a collection of code recipes containing step-by-step directions on how to install or build different types of Python test tools to solve different problems. Each recipe contains explanations of how it works along with answers to common questions and cross references to other relevant recipes. The easy-to-understand recipe names make this a handy test reference book. Python developers and programmers with a basic understanding of Python and Python testing will find this cookbook beneficial. It will build on that basic knowledge equipping you with the intermediate and advanced skills required to fully utilize the Python testing tools. Broken up into lots of small code recipes, you can read this book at your own pace, whatever your experience. No prior experience of automated testing is required.

Leverage the simplicity of Python and available libraries to build web security testing tools for your application
Key Features Understand the web application penetration testing methodology and toolkit using Python Write a web crawler/spider with the Scrapy library Detect and exploit SQL injection vulnerabilities by creating a script all by yourself
Book Description Web penetration testing is the use of tools and code to attack a website or web app in order to assess its vulnerability to external threats. While there are an increasing number of sophisticated, ready-made tools to scan systems for vulnerabilities, the use of Python allows you to write system-specific scripts, or alter and extend existing testing tools to find, exploit, and record as many security weaknesses as possible. Learning Python Web Penetration Testing will walk you through the web application penetration testing methodology, showing you how to write your own tools with Python for each activity throughout the process. The book begins by emphasizing the importance of knowing how to write your own tools with Python for web application penetration testing. You will then learn to interact with a web application using Python, understand the anatomy of an HTTP request, URL, headers and message body, and later create a script to perform a request, and interpret the response and its headers. As you make your way through the book, you will write a web crawler using Python and the Scrapy library. The book will also help you to develop a tool to perform brute force attacks in different parts of the web application. You will then discover more on detecting and exploiting SQL injection vulnerabilities. By the end of this book, you will have successfully created an HTTP proxy based on the mitmproxy tool. What you will learn Interact with a web application using the Python and Requests libraries Create a basic web application crawler and make it recursive Develop a brute force tool to discover and enumerate resources such as files and directories Explore different authentication methods commonly used in web applications Enumerate table names from a database using SQL injection Understand the web application penetration testing methodology and toolkit Who this book is for Learning Python Web Penetration Testing is for web developers who want to step into the world of web application security testing. Basic knowledge of Python is necessary.

This book is a blend of penetration testing and best practices industrial automation in cybersecurity space with Python. This book will enable pentesters to take their skills to the next level by leveraging the power of Python and explaining the core concepts that will come in handy when making robust cybersecurity tools and custom exploits.

Identify, exploit, and test web application security with ease Key Features Get up to speed with Metasploit and discover how to use it for pentesting Understand how to exploit and protect your web environment effectively Learn how an exploit works and what causes vulnerabilities Book Description Metasploit has been a crucial security tool for many years.

However, there are only a few modules that Metasploit has made available to the public for pentesting web applications. In this book, you'll explore another aspect of the framework – web applications – which is not commonly used. You'll also discover how Metasploit, when used with its inbuilt GUI, simplifies web application penetration testing. The book starts by focusing on the Metasploit setup, along with covering the life cycle of the penetration testing process. Then, you will explore Metasploit terminology and the web GUI, which is available in the Metasploit Community Edition. Next, the book will take you through pentesting popular content management systems such as Drupal, WordPress, and Joomla, which will also include studying the latest CVEs and understanding the root cause of vulnerability in detail. Later, you'll gain insights into the vulnerability assessment and exploitation of technological platforms such as JBoss, Jenkins, and Tomcat. Finally, you'll learn how to fuzz web applications to find logical security vulnerabilities using third-party tools. By the end of this book, you'll have a solid understanding of how to exploit and validate vulnerabilities by working with various tools and techniques. What you will learn Get up to speed with setting up and installing the Metasploit framework Gain first-hand experience of the Metasploit web interface Use Metasploit for web-application reconnaissance Understand how to pentest various content management systems Pentest platforms such as JBoss, Tomcat, and Jenkins Become well-versed with fuzzing web applications Write and automate penetration testing reports Who this book is for This book is for web security analysts, bug bounty hunters, security professionals, or any stakeholder in the security sector who wants to delve into web application security testing. Professionals who are not experts with command line tools or Kali Linux and prefer Metasploit's graphical user interface (GUI) will also find this book useful. No experience with Metasploit is required, but basic knowledge of Linux and web application pentesting will be helpful.

Get hands-on experience in using Burp Suite to execute attacks and perform web assessments Key Features Explore the tools in Burp Suite to meet your web infrastructure security demands Configure Burp to fine-tune the suite of tools specific to the target Use Burp extensions to assist with different technologies commonly found in application stacks Book Description Burp Suite is a Java-based platform for testing the security of your web applications, and has been adopted widely by professional enterprise testers. The Burp Suite Cookbook contains recipes to tackle challenges in determining and exploring vulnerabilities in web applications. You will learn how to uncover security flaws with various test cases for complex environments. After you have configured Burp for your environment, you will use Burp tools such as Spider, Scanner, Intruder, Repeater, and Decoder, among others, to resolve specific problems faced by pentesters. You will also explore working with various modes of Burp and then perform operations on the web. Toward the end, you will cover recipes that target specific test scenarios and resolve them using best practices. By the end of the book, you will be up and running with deploying Burp for securing web applications. What you will learn Configure Burp Suite for your web applications Perform authentication, authorization, business logic, and data validation testing Explore session management and client-side testing Understand unrestricted file uploads and server-side request forgery Execute XML

external entity attacks with Burp Perform remote code execution with Burp Who this book is for If you are a security professional, web pentester, or software developer who wants to adopt Burp Suite for applications security, this book is for you.

Discover the most common web vulnerabilities and prevent them from becoming a threat to your site's security Key Features Familiarize yourself with the most common web vulnerabilities Conduct a preliminary assessment of attack surfaces and run exploits in your lab Explore new tools in the Kali Linux ecosystem for web penetration testing Book Description Web applications are a huge point of attack for malicious hackers and a critical area for security professionals and penetration testers to lock down and secure. Kali Linux is a Linux-based penetration testing platform that provides a broad array of testing tools, many of which can be used to execute web penetration testing. Kali Linux Web Penetration Testing Cookbook gives you the skills you need to cover every stage of a penetration test – from gathering information about the system and application, to identifying vulnerabilities through manual testing. You will also cover the use of vulnerability scanners and look at basic and advanced exploitation techniques that may lead to a full system compromise. You will start by setting up a testing laboratory, exploring the latest features of tools included in Kali Linux and performing a wide range of tasks with OWASP ZAP, Burp Suite and other web proxies and security testing tools. As you make your way through the book, you will learn how to use automated scanners to find security flaws in web applications and understand how to bypass basic security controls. In the concluding chapters, you will look at what you have learned in the context of the Open Web Application Security Project (OWASP) and the top 10 web application vulnerabilities you are most likely to encounter, equipping you with the ability to combat them effectively. By the end of this book, you will have acquired the skills you need to identify, exploit, and prevent web application vulnerabilities. What you will learn Set up a secure penetration testing laboratory Use proxies, crawlers, and spiders to investigate an entire website Identify cross-site scripting and client-side vulnerabilities Exploit vulnerabilities that allow the insertion of code into web applications Exploit vulnerabilities that require complex setups Improve testing efficiency using automated vulnerability scanners Learn how to circumvent security controls put in place to prevent attacks Who this book is for Kali Linux Web Penetration Testing Cookbook is for IT professionals, web developers, security enthusiasts, and security professionals who want an accessible reference on how to find, exploit, and prevent security vulnerabilities in web applications. The basics of operating a Linux environment and prior exposure to security technologies and tools are necessary.

Pen test your system like a pro and overcome vulnerabilities by leveraging Python scripts, libraries, and tools About This Book Learn to utilize your Python scripting skills to pentest a computer system, network, and web-application Get proficient at the art of assessing vulnerabilities by conducting effective penetration testing This is the ultimate guide that teaches you how to use Python to protect your systems against sophisticated cyber attacks Who This Book Is For This book is ideal for those who are comfortable with Python or a similar language and need no help with basic programming concepts, but want to understand the basics of penetration testing and the problems pentesters face. What You Will Learn Write Scapy scripts to investigate network traffic Get to know application fingerprinting techniques with Python Understand the attack scripting techniques Write fuzzing tools with pentesting requirements Learn basic attack scripting methods Utilize cryptographic toolkits in Python Automate pentesting with Python tools and libraries In Detail Penetration testing is a practice of testing a computer system, network, or web application to find weaknesses in security that an attacker can exploit. Effective Python Penetration Testing will help you utilize your Python scripting skills to safeguard your networks from cyberattacks. We will begin by providing you with an overview of Python scripting and penetration testing. You will learn to analyze network traffic by writing Scapy scripts and will see how to fingerprint web applications with Python libraries such as ProxMon and Spynner. Moving on, you will find out how to write basic attack scripts, and will develop debugging and reverse engineering skills with Python libraries. Toward the end of the book, you will discover how to utilize cryptography toolkits in Python and how to automate Python tools and libraries. Style and approach This is an expert's guide to Python with a practical based approach, where each chapter will help you improve your penetration testing skills using Python to become a master pen tester.

Over 80 recipes to master the most widely used penetration testing framework.

Penetration testers simulate cyber attacks to find security weaknesses in networks, operating systems, and applications. Information security experts worldwide use penetration techniques to evaluate enterprise defenses. In Penetration Testing, security expert, researcher, and trainer Georgia Weidman introduces you to the core skills and techniques that every pentester needs. Using a virtual machine–based lab that includes Kali Linux and vulnerable operating systems, you'll run through a series of practical lessons with tools like Wireshark, Nmap, and Burp Suite. As you follow along with the labs and launch attacks, you'll experience the key stages of an actual assessment—including information gathering, finding exploitable vulnerabilities, gaining access to systems, post exploitation, and more. Learn how to: –Crack passwords and wireless network keys with brute-forcing and wordlists –Test web applications for vulnerabilities –Use the Metasploit Framework to launch exploits and write your own Metasploit modules –Automate social-engineering attacks –Bypass antivirus software –Turn access to one machine into total control of the enterprise in the post exploitation phase You'll even explore writing your own exploits. Then it's on to mobile hacking—Weidman's particular area of research—with her tool, the Smartphone Pentest Framework. With its collection of hands-on lessons that cover key tools and strategies, Penetration Testing is the introduction that every aspiring hacker needs.

Learn how to execute web application penetration testing end-to-end Key Features Build an end-to-end threat model landscape for web application security Learn both web application vulnerabilities and web intrusion testing Associate network vulnerabilities with a web application infrastructure Book Description Companies all over the world want to hire professionals dedicated to application security. Practical Web Penetration Testing focuses on this very trend, teaching you how to conduct application security testing using real-life scenarios. To start with, you'll set up an environment to perform web application penetration testing. You will then explore different penetration testing concepts such as threat modeling, intrusion test, infrastructure security threat, and more, in combination with advanced concepts such as Python scripting for automation. Once you are done learning the basics, you will discover end-to-end implementation of tools such as Metasploit, Burp Suite, and Kali Linux. Many companies deliver projects into production by using either Agile or Waterfall methodology. This book shows you how to assist any company with their SDLC approach and helps you on your journey to becoming an application security specialist. By the end of this book, you will have hands-on knowledge of using different tools for penetration testing. What you will learn Learn how to use Burp Suite effectively Use Nmap, Metasploit, and more tools for network infrastructure tests Practice using all web application hacking tools for intrusion tests using Kali Linux Learn how to analyze a web application using application threat modeling Know how to conduct web intrusion tests Understand how to execute network infrastructure tests Master automation of penetration testing functions for maximum efficiency using Python Who this book is for Practical Web Penetration Testing is for you if you are a security professional, penetration tester, or stakeholder who wants to execute penetration testing using the latest and most popular tools. Basic knowledge of ethical hacking would be an added advantage.

Taking a highly practical approach and a playful tone, Kali Linux CTF Blueprints provides step-by-step guides to setting up vulnerabilities, in-depth guidance to exploiting them, and a variety of advice and ideas to build and customising your own challenges. If you are a penetration testing team leader or individual who wishes to challenge yourself or your friends in the creation of penetration testing assault courses, this is the book for you. The book assumes a basic level of penetration skills and familiarity with the Kali Linux operating system.

Become a master at penetration testing using machine learning with Python Key Features Identify ambiguities and breach intelligent security systems Perform unique cyber attacks to breach robust systems Learn to leverage machine learning algorithms Book Description Cyber security is crucial for both businesses and individuals. As systems are getting smarter, we now see machine learning interrupting computer

security. With the adoption of machine learning in upcoming security products, it's important for pentesters and security researchers to understand how these systems work, and to breach them for testing purposes. This book begins with the basics of machine learning and the algorithms used to build robust systems. Once you've gained a fair understanding of how security products leverage machine learning, you'll dive into the core concepts of breaching such systems. Through practical use cases, you'll see how to find loopholes and surpass a self-learning security system. As you make your way through the chapters, you'll focus on topics such as network intrusion detection and AV and IDS evasion. We'll also cover the best practices when identifying ambiguities, and extensive techniques to breach an intelligent system. By the end of this book, you will be well-versed with identifying loopholes in a self-learning security system and will be able to efficiently breach a machine learning system. What you will learn

- Take an in-depth look at machine learning
- Get to know natural language processing (NLP)
- Understand malware feature engineering
- Build generative adversarial networks using Python libraries
- Work on threat hunting with machine learning and the ELK stack
- Explore the best practices for machine learning

Who this book is for This book is for pen testers and security professionals who are interested in learning techniques to break an intelligent security system. Basic knowledge of Python is needed, but no prior knowledge of machine learning is necessary.

The Metasploit Framework makes discovering, exploiting, and sharing vulnerabilities quick and relatively painless. But while Metasploit is used by security professionals everywhere, the tool can be hard to grasp for first-time users. Metasploit: The Penetration Tester's Guide fills this gap by teaching you how to harness the Framework and interact with the vibrant community of Metasploit contributors. Once you've built your foundation for penetration testing, you'll learn the Framework's conventions, interfaces, and module system as you launch simulated attacks. You'll move on to advanced penetration testing techniques, including network reconnaissance and enumeration, client-side attacks, wireless attacks, and targeted social-engineering attacks. Learn how to:

- Find and exploit unmaintained, misconfigured, and unpatched systems
- Perform reconnaissance and find valuable information about your target
- Bypass anti-virus technologies and circumvent security controls
- Integrate Nmap, NeXpose, and Nessus with Metasploit to automate discovery
- Use the Meterpreter shell to launch further attacks from inside the network
- Harness standalone Metasploit utilities, third-party tools, and plug-ins
- Learn how to write your own Meterpreter post exploitation modules and scripts

You'll even touch on exploit discovery for zero-day research, write a fuzzer, port existing exploits into the Framework, and learn how to cover your tracks. Whether your goal is to secure your own networks or to put someone else's to the test, Metasploit: The Penetration Tester's Guide will take you there and beyond.

Violent Python shows you how to move from a theoretical understanding of offensive computing concepts to a practical implementation. Instead of relying on another attacker's tools, this book will teach you to forge your own weapons using the Python programming language. This book demonstrates how to write Python scripts to automate large-scale network attacks, extract metadata, and investigate forensic artifacts. It also shows how to write code to intercept and analyze network traffic using Python, craft and spoof wireless frames to attack wireless and Bluetooth devices, and how to data-mine popular social media websites and evade modern anti-virus. Demonstrates how to write Python scripts to automate large-scale network attacks, extract metadata, and investigate forensic artifacts

Write code to intercept and analyze network traffic using Python. Craft and spoof wireless frames to attack wireless and Bluetooth devices Data-mine popular social media websites and evade modern anti-virus

Web Penetration Testing with Kali Linux contains various penetration testing methods using BackTrack that will be used by the reader. It contains clear step-by-step instructions with lot of screenshots. It is written in an easy to understand language which will further simplify the understanding for the user. "Web Penetration Testing with Kali Linux" is ideal for anyone who is interested in learning how to become a penetration tester. It will also help the users who are new to Kali Linux and want to learn the features and differences in Kali versus Backtrack, and seasoned penetration testers who may need a refresher or reference on new tools and techniques. Basic familiarity with web-based programming languages such as PHP, JavaScript and MySQL will also prove helpful.

Your pen testing career begins here, with a solid foundation in essential skills and concepts Penetration Testing Essentials provides a starting place for professionals and beginners looking to learn more about penetration testing for cybersecurity. Certification eligibility requires work experience—but before you get that experience, you need a basic understanding of the technical and behavioral ways attackers compromise security, and the tools and techniques you'll use to discover the weak spots before others do. You'll learn information gathering techniques, scanning and enumeration, how to target wireless networks, and much more as you build your pen tester skill set. You'll learn how to break in, look around, get out, and cover your tracks, all without ever being noticed. Pen testers are tremendously important to data security, so they need to be sharp and well-versed in technique, but they also need to work smarter than the average hacker. This book set you on the right path, with expert instruction from a veteran IT security expert with multiple security certifications. IT Security certifications have stringent requirements and demand a complex body of knowledge. This book lays the groundwork for any IT professional hoping to move into a cybersecurity career by developing a robust pen tester skill set. Learn the fundamentals of security and cryptography

- Master breaking, entering, and maintaining access to a system
- Escape and evade detection while covering your tracks
- Build your pen testing lab and the essential toolbox
- Start developing the tools and mindset you need to become experienced in pen testing today.

Take full creative control of your web applications with Flask, the Python-based microframework. With this hands-on book, you'll learn Flask from the ground up by developing a complete social blogging application step-by-step. Author Miguel Grinberg walks you through the framework's core functionality, and shows you how to extend applications with advanced web techniques such as database migration and web service communication. Rather than impose development guidelines as other frameworks do, Flask leaves the business of extensions up to you. If you have Python experience, this book shows you how to take advantage of that creative freedom. Learn Flask's basic application structure and write an example app

- Work with must-have components—templates, databases, web forms, and email support
- Use packages and modules to structure a large application that scales
- Implement user authentication, roles, and

profiles Build a blogging feature by reusing templates, paginating item lists, and working with rich text Use a Flask-based RESTful API to expose app functionality to smartphones, tablets, and other third-party clients Learn how to run unit tests and enhance application performance Explore options for deploying your web app to a production server

Over 80 recipes to master IoT security techniques. About This Book Identify vulnerabilities in IoT device architectures and firmware using software and hardware pentesting techniques Understand radio communication analysis with concepts such as sniffing the air and capturing radio signals A recipe based guide that will teach you to pentest new and unique set of IoT devices. Who This Book Is For This book targets IoT developers, IoT enthusiasts, pentesters, and security professionals who are interested in learning about IoT security. Prior knowledge of basic pentesting would be beneficial. What You Will Learn Set up an IoT pentesting lab Explore various threat modeling concepts Exhibit the ability to analyze and exploit firmware vulnerabilities Demonstrate the automation of application binary analysis for iOS and Android using MobSF Set up a Burp Suite and use it for web app testing Identify UART and JTAG pinouts, solder headers, and hardware debugging Get solutions to common wireless protocols Explore the mobile security and firmware best practices Master various advanced IoT exploitation techniques and security automation In Detail IoT is an upcoming trend in the IT industry today; there are a lot of IoT devices on the market, but there is a minimal understanding of how to safeguard them. If you are a security enthusiast or pentester, this book will help you understand how to exploit and secure IoT devices. This book follows a recipe-based approach, giving you practical experience in securing upcoming smart devices. It starts with practical recipes on how to analyze IoT device architectures and identify vulnerabilities. Then, it focuses on enhancing your pentesting skill set, teaching you how to exploit a vulnerable IoT device, along with identifying vulnerabilities in IoT device firmware. Next, this book teaches you how to secure embedded devices and exploit smart devices with hardware techniques. Moving forward, this book reveals advanced hardware pentesting techniques, along with software-defined, radio-based IoT pentesting with Zigbee and Z-Wave. Finally, this book also covers how to use new and unique pentesting techniques for different IoT devices, along with smart devices connected to the cloud. By the end of this book, you will have a fair understanding of how to use different pentesting techniques to exploit and secure various IoT devices. Style and approach This recipe-based book will teach you how to use advanced IoT exploitation and security automation.

Over 60 hands-on recipes to pen test networks using Python to discover vulnerabilities and find a recovery path About This Book* Learn to detect and avoid various types of attacks that put the privacy of a system at risk* Enhance your knowledge on the concepts of wireless applications and information gathering through practical recipes.* See a pragmatic way to penetration test using Python to build efficient code and save time Who This Book Is For This book is for developers who have prior knowledge of using Python for pen testing. If you want an overview of scripting tasks to consider while pen testing, this book will give you a lot of useful code or your tool kit. What You Will Learn* Find an IP address from a web page using BeautifulSoup and urllib* Discover different types of sniffers to build an intrusion detection system* Create an efficient and high-performance ping sweep and port scanner* Get to grips with making an SSID and BSSID scanner* Perform network pen-testing by attacking DDoS, DHCP and packet injecting* Fingerprint OS and network applications, and correlate common vulnerabilities* Master techniques to detect vulnerabilities in your environment and secure them* Incorporate various networks and packet sniffing techniques using Raw sockets and Scapy In Detail Penetration testing is the use of tools and code to attack a system in order to assess its vulnerabilities to external threats. Python allows pen testers to create their own tools. Since Python is a highly valued pen-testing language, there are many native libraries and Python bindings available specifically for pen-testing tasks. Python Penetration Testing Cookbook begins by teaching you how to extract information from web pages. You will learn how to build an intrusion detection system using network sniffing techniques. Next, you will find out how to scan your networks to ensure performance and quality, and how to carry out wireless pen testing on your network to avoid cyber attacks. After that, we'll discuss the different kinds of attacks on the network. Next, you'll get to grips with designing your own torrent detection program. We'll take you through common vulnerability scenarios and then cover buffer overflow exploitation so you can detect insecure coding. Finally, you'll discover PE code injection methods to safeguard your network.

Unleash the power of Python scripting to execute effective and efficient penetration tests About This Book Sharpen your pentesting skills with Python Develop your fluency with Python to write sharper scripts for rigorous security testing Get stuck into some of the most powerful tools in the security world Who This Book Is For If you are a Python programmer or a security researcher who has basic knowledge of Python programming and wants to learn about penetration testing with the help of Python, this course is ideal for you. Even if you are new to the field of ethical hacking, this course can help you find the vulnerabilities in your system so that you are ready to tackle any kind of attack or intrusion. What You Will Learn Familiarize yourself with the generation of Metasploit resource files and use the Metasploit Remote Procedure Call to automate exploit generation and execution Exploit the Remote File Inclusion to gain administrative access to systems with Python and other scripting languages Crack an organization's Internet perimeter and chain exploits to gain deeper access to an organization's resources Explore wireless traffic with the help of various programs and perform wireless attacks with Python programs Gather passive information from a website using automated scripts and perform XSS, SQL injection, and parameter tampering attacks Develop complicated header-based attacks through Python In Detail Cybercriminals are always one step ahead, when it comes to tools and techniques. This means you need to use the same tools and adopt the same mindset to properly secure your software. This course shows you how to do just that, demonstrating how effective Python can be for powerful pentesting that keeps your software safe. Comprising of three key modules, follow each one to push your Python and security skills to the next level. In the first module, we'll show you how to get to grips with the fundamentals. This means you'll quickly find out how to tackle some of the common challenges facing pentesters using custom Python tools designed specifically for your needs. You'll also learn what tools

to use and when, giving you complete confidence when deploying your pentester tools to combat any potential threat. In the next module you'll begin hacking into the application layer. Covering everything from parameter tampering, DDoS, XSS and SQL injection, it will build on the knowledge and skills you learned in the first module to make you an even more fluent security expert. Finally in the third module, you'll find more than 60 Python pentesting recipes. We think this will soon become your trusted resource for any pentesting situation. This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It includes content from the following Packt products: Learning Penetration Testing with Python by Christopher Duffy Python Penetration Testing Essentials by Mohit Python Web Penetration Testing Cookbook by Cameron Buchanan, Terry Ip, Andrew Mabbitt, Benjamin May and Dave Mound Style and approach This course provides a quick access to powerful, modern tools, and customizable scripts to kick-start the creation of your own Python web penetration testing toolbox.

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