Exam Questions 312-50v12

Certified Ethical Hacker Exam (CEHv12)

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NEW QUESTION 1
SQL injection (SQLi) attacks attempt to inject SQL syntax into web requests, which may Bypass authentication and allow attackers to access and/or modify data attached to a web application. Which of the following SQLI types leverages a database server's ability to make DNS requests to pass data to an attacker?

A. Union-based SQLI
B. Out-of-band SQLI
C. In-band SQLI
D. Time-based blind SQLI

Answer: B

Explanation:
Out-of-band SQL injection occurs when an attacker is unable to use an equivalent channel to launch the attack and gather results. … Out-of-band SQLi techniques would believe the database server’s ability to form DNS or HTTP requests to deliver data to an attacker. Out-of-band SQL injection is not very common, mostly because it depends on features being enabled on the database server being used by the web application. Out-of-band SQL injection occurs when an attacker is unable to use the same channel to launch the attack and gather results.
Out-of-band techniques, offer an attacker an alternative to inferential time-based techniques, especially if the server responses are not very stable (making an inferential time-based attack unreliable).
Out-of-band SQLi techniques would rely on the database server’s ability to make DNS or HTTPrequests to deliver data to an attacker. Such is the case with Microsoft SQLServer’s xp_dirtree command, which can be used to make DNS requests to a server an attackercontrols; as well as Oracle Database’s UTL_HTTP package, which can be used to send HTTP requestsfrom SQL and PL/SQL to a server an attacker controls.

NEW QUESTION 2
Annie, a cloud security engineer, uses the Docker architecture to employ a client/server model in the application she is working on. She utilizes a component that can process API requests and handle various Docker objects, such as containers, volumes. Images, and networks. What is the component of the Docker architecture used by Annie in the above scenario?

A. Docker client
B. Docker objects
C. Docker daemon
D. Docker registries

Answer: C

Explanation:
Docker uses a client-server design. The docker client talks to the docker daemon, that will the work of building, running, and distributing your docker containers. The docker client and daemon will run on the same system, otherwise you will connect a docker consumer to a remote docker daemon. The docker consumer and daemon communicate using a REST API, over OS sockets or a network interface.

The docker daemon (dockerd) listens for docker API requests and manages docker objects like pictures, containers, networks, and volumes. A daemon may communicate with other daemons to manage docker services.

NEW QUESTION 3
Attacker Steve targeted an organization's network with the aim of redirecting the company's web traffic to another malicious website. To achieve this goal, Steve performed DNS cache poisoning by exploiting the vulnerabilities In the DNS server software and modified the original IP address of the target website to that of a fake website. What is the technique employed by Steve to gather information for identity theft?

A. Pretexting
B. Pharming
C. Wardriving
D. Skimming

Answer: B

Explanation:
A pharming attacker tries to send a web site’s traffic to a faux website controlled by the offender, typically for the aim of collection sensitive data from victims or putting in malware on their machines. Attacker tend to specialize in making look-alike ecommerce and digital banking websites to reap credentials and payment card data.
Though they share similar goals, pharming uses a special technique from phishing. “Pharming attacker are targeted on manipulating a system, instead of tricking people into reaching to a dangerous web site,” explains David Emm, principal security man of science at Kaspersky. “When either a phishing or pharming attacker is completed by a criminal, they need a similar driving issue to induce victims onto a corrupt location, however the mechanisms during which this is often undertaken are completely different.”

NEW QUESTION 4
Ethical backer jane Doe is attempting to crack the password of the head of the it department of ABC company. She Is utilizing a rainbow table and notices upon entering a password that extra characters are added to the password after submitting. What countermeasure is the company using to protect against rainbow tables?

A. Password key hashing
B. Password salting
C. Password hashing
D. Account lockout

Answer: B

Explanation:
Passwords are usually delineated as “hashed and salted”. salting is simply the addition of a unique, random string of characters renowned solely to the site to every parole before it’s hashed, typically this “salt” is placed in front of each password.

The salt value needs to be hold on by the site, which means typically sites use the same salt for each parole. This makes it less effective than if individual salts are used.
The use of unique salts means that common passwords shared by multiple users – like “123456” or “password” – aren’t revealed revealed when one such hashed password is known – because despite the passwords being the same the immediately and hashed values are not.
Large salts also protect against certain methods of attack on hashes, including rainbow tables or logs of hashed passwords previously broken. Both hashing and salting may be repeated more than once to increase the issue in breaking the security.

NEW QUESTION 5
what firewall evasion scanning technique make use of a zombie system that has low network activity as well as its fragment identification numbers?

A. Decoy scanning
B. Packet fragmentation scanning
C. Spoof source address scanning
D. Idle scanning

Answer: D

Explanation:
The idle scan could be a communications protocol port scan technique that consists of causing spoofed packets to a pc to seek out out what services square measure obtainable. this can be accomplished by impersonating another pc whose network traffic is extremely slow or nonexistent (that is, not transmission or receiving information). this might be associate idle pc, known as a “zombie”.
This action are often done through common code network utilities like nmap and hping. The attack involves causing solid packets to a particular machine target in an attempt to seek out distinct characteristics of another zombie machine. The attack is refined as a result of there’s no interaction between the offender pc and also the target: the offender interacts solely with the “zombie” pc.
This exploit functions with 2 functions, as a port scanner and a clerk of sure informatics relationships between machines. The target system interacts with the “zombie” pc and distinction in behavior are often discovered mistreatment totally different|completely different “zombies” with proof of various privileges granted by the target to different computers.
The overall intention behind the idle scan is to “check the port standing whereas remaining utterly invisible to the targeted host.” The first step in execution associate idle scan is to seek out associate applicable zombie. It must assign informatics ID packets incrementally on a worldwide (rather than per-host it communicates with) basis. It ought to be idle (hence the scan name), as extraneous traffic can raise its informatics ID sequence, confusing the scan logic. The lower the latency between the offender and also the zombie, and between the zombie and also the target, the quicker the scan can proceed.
Note that once a port is open, IPIDs increment by a pair of. Following is that the sequence: offender to focus on -> SYN, target to zombie ->SYN/ACK, Zombie to focus on -> RST (IPID increment by 1) currently offender tries to probe zombie for result. offender to Zombie ->SYN/ACK, Zombie to offender -> RST (IPID increment by 1) So, during this method IPID increments by a pair of finally.
When associate idle scan is tried, tools (for example nmap) tests the projected zombie and reports any issues with it. If one does not work, attempt another. Enough net hosts square measure vulnerable that zombie candidates are not exhausting to seek out. a standard approach is to easily execute a ping sweep of some network. selecting a network close to your supply address, or close to the target, produces higher results. you’ll be able to attempt associate idle scan mistreatment every obtainable host from the ping sweep results till you discover one that works. As usual, it’s best to raise permission before mistreatment someone’s machines for surprising functions like idle scanning.
Simple network devices typically create nice zombies as a result of {they square measure|they’re} normally each underused (idle) and designed with straightforward network stacks that are susceptible to informatics ID traffic detection. While distinguishing an acceptable zombie takes some initial work, you’ll be able to keep re-using the nice ones. as an alternative, there are some analysis on utilizing unplanned public internet services as zombie hosts to perform similar idle scans. leverage the approach a number of these services perform departing connections upon user submissions will function some quite poor’s man idle scanning.

NEW QUESTION 6
Larry, a security professional in an organization, has noticed some abnormalities In the user accounts on a web server. To thwart evolving attacks, he decided to harden the security of the web server by adopting a countermeasures to secure the accounts on the web server.
Which of the following countermeasures must Larry implement to secure the user accounts on the web server?

A. Enable unused default user accounts created during the installation of an OS
B. Enable all non-interactive accounts that should exist but do not require interactive login
C. Limit the administrator or toot-level access to the minimum number of users
D. Retain all unused modules and application extensions

Answer: C

NEW QUESTION 7
Don, a student, came across a gaming app in a third-party app store and Installed it. Subsequently, all the legitimate apps in his smartphone were replaced by deceptive applications that appeared legitimate. He also received many advertisements on his smartphone after Installing the app. What is the attack performed on Don in the above scenario?

A. SMS phishing attack
B. SIM card attack
C. Agent Smith attack
D. Clickjacking

Answer: C

Explanation:
Agent Smith Attack
Agent Smith attacks are carried out by luring victims into downloading and installing malicious apps designed and published by attackers in the form of games, photo editors, or other attractive tools from third-party app stores such as 9Apps. Once the user has installed the app, the core malicious code inside the application infects or replaces the legitimate apps in the victim's mobile device C&C commands. The deceptive application replaces legitimate apps such as WhatsApp, SHAREit, and MX Player with similar infected versions. The application sometimes also appears to be an authentic Google product such as Google Updater or Themes. The attacker then produces a massive volume of irrelevant and fraudulent advertisements on the victim's device through the infected app for financial gain. Attackers exploit these apps to steal critical information such as personal information, credentials, and bank details, from the victim's mobile device through C&C commands.

NEW QUESTION 8
A new wireless client is configured to join a 802.11 network. This client uses the same hardware and software as many of the other clients on the network. The client can see the network, but cannot connect. A wireless packet sniffer shows that the Wireless Access Point (WAP) is not responding to the association requests being sent by the wireless client. What is a possible source of this problem?

A. The WAP does not recognize the client’s MAC address
B. The client cannot see the SSID of the wireless network
C. Client is configured for the wrong channel
D. The wireless client is not configured to use DHCP

Answer: A

Explanation:
https://en.wikipedia.org/wiki/MAC_filtering
MAC filtering is a security method based on access control. Each address is assigned a 48-bit address, which is used to determine whether we can access a network or not. It helps in listing a set of allowed devices that you need on your Wi-Fi and the list of denied devices that you don’t want on your Wi-Fi. It helps in preventing unwanted access to the network. In a way, we can blacklist or white list certain computers based on their MAC address. We can configure the filter to allow connection only to those devices included in the white list. White lists provide greater security than blacklists because the router grants access only to selected devices.
It is used on enterprise wireless networks having multiple access points to prevent clients from communicating with each other. The access point can be configured only to allow clients to talk to the default gateway, but not other wireless clients. It increases the efficiency of access to a network.
The router allows configuring a list of allowed MAC addresses in its web interface, allowing you to choose which devices can connect to your network. The router has several functions designed to improve the network's security, but not all are useful. Media access control may seem advantageous, but there are certain flaws.
On a wireless network, the device with the proper credentials such as SSID and password can authenticate with the router and join the network, which gets an IP address and access to the internet and any shared resources.
MAC address filtering adds an extra layer of security that checks the device’s MAC address against a list of agreed addresses. If the client’s address matches one on the router’s list, access is granted; otherwise, it doesn’t join the network.

NEW QUESTION 9
If a tester is attempting to ping a target that exists but receives no response or a response that states the destination is unreachable, ICMP may be disabled and the network may be using TCP. Which other option could the tester use to get a response from a host using TCP?

A. Traceroute
B. Hping
C. TCP ping
D. Broadcast ping

Answer: B

Explanation:
https://tools.kali.org/information-gathering/hping3
http://www.carnal0wnage.com/papers/LSO-Hping2-Basics.pdf

NEW QUESTION 10
Which is the first step followed by Vulnerability Scanners for scanning a network?

A. OS Detection
B. Firewall detection
C. TCP/UDP Port scanning
D. Checking if the remote host is alive

Answer: D

Explanation:
Vulnerability scanning solutions perform vulnerability penetration tests on the organizational network in three steps:
* 1. Locating nodes: The first step in vulnerability scanning is to locate live hosts in the target network using various scanning techniques.
* 2. Performing service and OS discovery on them: After detecting the live hosts in the target network, the next step is to enumerate the open ports and services and the operating system on the target systems.
* 3. Testing those services and OS for known vulnerabilities: Finally, after identifying the open services and the operating system running on the target nodes, they are tested for known vulnerabilities.

NEW QUESTION 10
The Heartbleed bug was discovered in 2014 and is widely referred to under MITRE’s Common Vulnerabilities and Exposures (CVE) as CVE-2014-0160. This bug affects the OpenSSL implementation of the Transport Layer Security (TLS) protocols defined in RFC6520.
What type of key does this bug leave exposed to the Internet making exploitation of any compromised system very easy?

A. Public
B. Private

C. Shared
D. Root

Answer: B

NEW QUESTION 11
John, a professional hacker, targeted CyberSol Inc., an MNC. He decided to discover the loT devices connected in the target network that are using default credentials and are vulnerable to various hijacking attacks. For this purpose, he used an automated tool to scan the target network for specific types of loT devices and detect whether they are using the default, factory-set credentials. What is the tool employed by John in the above scenario?

A. loTSeeker
B. loT Inspector
C. AT&T loT Platform
D. Azure loT Central

Answer: A

NEW QUESTION 12
An unauthorized individual enters a building following an employee through the employee entrance after the lunch rush. What type of breach has the individual just performed?

A. Reverse Social Engineering
B. Tailgating
C. Piggybacking
D. Announced

Answer: B

Explanation:
Explanation
· Identifying operating systems, services, protocols and devices,
· Collecting unencrypted information about usernames and passwords,
· Capturing network traffic for further analysis
are passive network sniffing methods since with the help of them we only receive information and do not make any changes to the target network. When modifying and replaying the captured network traffic, we are already starting to make changes and actively interact with it.

NEW QUESTION 14
Harris is attempting to identify the OS running on his target machine. He inspected the initial TTL in the IP header and the related TCP window size and obtained the following results:
TTL: 64 Window Size: 5840
What is the OS running on the target machine?

A. Solaris OS
B. Windows OS
C. Mac OS
D. Linux OS

Answer: D

NEW QUESTION 18
Attacker Rony installed a rogue access point within an organization's perimeter and attempted to intrude into its internal network. Johnson, a security auditor, identified some unusual traffic in the internal network that is aimed at cracking the authentication mechanism. He immediately turned off the targeted network and tested for any weak and outdated security mechanisms that are open to attack. What is the type of vulnerability assessment performed by johnson in the above scenario?

A. Host-based assessment
B. Wireless network assessment
C. Application assessment
D. Distributed assessment

Answer: B

Explanation:
Wireless network assessment determines the vulnerabilities in an organization’s wireless networks. In the past, wireless networks used weak and defective data encryption mechanisms. Now, wireless network standards have evolved, but many networks still use weak and outdated security mechanisms and are open to attack. Wireless network assessments try to attack wireless authentication mechanisms and gain unauthorized access. This type of assessment tests wireless networks and identifies rogue networks that may exist within an organization’s perimeter. These assessments audit client-specified sites with a wireless network. They sniff wireless network traffic and try to crack encryption keys. Auditors test other network access if they gain access to the wireless network.

NEW QUESTION 22
The change of a hard drive failure is once every three years. The cost to buy a new hard drive is $300. It will require 10 hours to restore the OS and software to the new hard disk. It will require a further 4 hours to restore the database from the last backup to the new hard disk. The recovery person earns $10/hour. Calculate the SLE, ARO, and ALE. Assume the EF = 1(100%). What is the closest approximate cost of this replacement and recovery operation per year?

A. $1320
B. $440
C. $100
D. $146

Answer: D

Explanation:
* 1. AV (Asset value)
= $300 + (14 * $10) = $440 - the cost of a hard drive plus the work of a recovery person,
i.e.how much would it take to replace 1 asset? 10 hours for resorting the OS and soft + 4 hours for DB restore multiplies by hourly rate of the recovery person.
* 2. SLE (Single Loss Expectancy)
= AV * EF (Exposure Factor) = $440 * 1 = $440
* 3. ARO (Annual rate of occurrence)
years is 1/3)
* 4. ALE (Annual Loss Expectancy)

NEW QUESTION 23
= 1/3 (every three years, meaning the probability of occurring during 1
= SLE * ARO = 0.33 * $440 = $145.2
Why should the security analyst disable/remove unnecessary ISAPI filters?

A. To defend against social engineering attacks
B. To defend against webserver attacks
C. To defend against jailbreaking
D. To defend against wireless attacks

Answer: B

NEW QUESTION 25
in an attempt to increase the security of your network, you Implement a solution that will help keep your wireless network undiscoverable and accessible only to those that know It. How do you accomplish this?

A. Delete the wireless network
B. Remove all passwords
C. Lock all users
D. Disable SSID broadcasting

Answer: D

Explanation:
The SSID (service set identifier) is the name of your wireless network. SSID broadcast is how your router transmits this name to surrounding devices. Its primary function is to make your network visible and easily accessible. Most routers broadcast their SSIDs automatically. To disable or enable SSID broadcast, you need to change your router's settings.
Disabling SSID broadcast will make your Wi-FI network name invisible to other users. However, this only hides the name, not the network itself. You cannot disguise the router's activity, so hackers can still attack it.
With your network invisible to wireless devices, connecting becomes a bit more complicated. Just giving a Wi-FI password to your guests is no longer enough. They have to configure their settings manually by including the network name, security mode, and other relevant info.
Disabling SSID might be a small step towards online security, but by no means should it be your final one. Before considering it as a security measure, consider the following aspects:
- Disabling SSID broadcast will not hide your network completely
Disabling SSID broadcast only hides the network name, not the fact that it exists. Your router constantly transmits so-called beacon frames to announce the presence of a wireless network. They contain essential information about the network and help the device connect.
- Third-party software can easily trace a hidden network
Programs such as NetStumbler or Kismet can easily locate hidden networks. You can try using them yourself to see how easy it is to find available networks – hidden or not.
- You might attract unwanted attention.
Disabling your SSID broadcast could also raise suspicion. Most of us assume that when somebody hides something, they have a reason to do so. Thus, some hackers might be attracted to your network.

NEW QUESTION 29
A company's Web development team has become aware of a certain type of security vulnerability in their Web software. To mitigate the possibility of this vulnerability being exploited, the team wants to modify the software requirements to disallow users from entering HTML as input into their Web application.
What kind of Web application vulnerability likely exists in their software?

A. Cross-site scripting vulnerability
B. SQL injection vulnerability
C. Web site defacement vulnerability
D. Gross-site Request Forgery vulnerability

Answer: A

Explanation:
There is no single, standardized classification of cross-site scripting flaws, but most experts distinguish between at least two primary flavors of XSS flaws: non-persistent and persistent. In this issue, we consider the non-persistent cross-site scripting vulnerability.
The non-persistent (or reflected) cross-site scripting vulnerability is by far the most basic type of web vulnerability. These holes show up when the data provided by a web client, most commonly in HTTP query parameters (e.g. HTML form submission), is used immediately by server-side scripts to parse and display a page of results for and to that user, without properly sanitizing the content.
Because HTML documents have a flat, serial structure that mixes control statements, formatting, and the actual content, any non-validated user-supplied data included in the resulting page without proper HTML encoding, may lead to markup injection. A classic example of a potential vector is a site search engine: if one searches for a string, the search string will typically be redisplayed verbatim on the result page to indicate what was searched for. If this response does not properly escape or reject HTML control characters, a cross-site scripting flaw will ensue.

NEW QUESTION 31

What does the –oX flag do in an Nmap scan?

A. Perform an eXpress scan
B. Output the results in truncated format to the screen
C. Output the results in XML format to a file
D. Perform an Xmas scan

Answer: C

Explanation:
https://nmap.org/book/man-output.html
-oX <filespec> - Requests that XML output be directed to the given filename.

NEW QUESTION 33
Which of the following tools can be used to perform a zone transfer?

A. NSLookup
B. Finger
C. Dig
D. Sam Spade
E. Host
F. Netcat
G. Neotrace

Answer: ACDE

NEW QUESTION 37
What kind of detection techniques is being used in antivirus softwares that identifies malware by collecting data from multiple protected systems and instead of analyzing files locally it's made on the premiers environment

A. VCloud based
B. Honypot based
C. Behaviour based
D. Heuristics based

Answer: A

NEW QUESTION 39
Nathan is testing some of his network devices. Nathan is using Macof to try and flood the ARP cache of these switches.
If these switches' ARP cache is successfully flooded, what will be the result?

A. The switches will drop into hub mode if the ARP cache is successfully flooded.
B. If the ARP cache is flooded, the switches will drop into pix mode making it less susceptible to attacks.
C. Depending on the switch manufacturer, the device will either delete every entry in its ARP cache or reroute packets to the nearest switch.
D. The switches will route all traffic to the broadcast address created collisions.

Answer: A

NEW QUESTION 42
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