

CYBERSECURITY NOTES

Introduction to Kali Linux Tools

Ethical Hacking Basics and Penetration Testing Environment

Prepared by Syed Ghous

Introduction to Kali Linux

Kali Linux aik special operating system ha jo cybersecurity aur ethical hacking ke liye use hota ha. Is mein bohat se hacking aur security tools pehle se installed hotay hain. Hackers, cybersecurity students aur penetration testers is system ko use karte hain taake systems ki security check kar saken.

What is Ethical Hacking?

Ethical hacking ka matlab hota ha kisi system ya website ko permission ke sath test karna taake uski security weaknesses ka pata lag sake. Ethical hackers bure hackers ki tarah damage nahi karte. Wo sirf security improve karne ke liye testing karte hain.

What is Penetration Testing?

Penetration testing aik process ha jahan cybersecurity experts kisi network, website ya system ko test karte hain. Is process ka maqsad vulnerabilities aur weak points dhoondna hota ha. Isay short form mein pen testing bhi kehte hain.

Important Kali Linux Tools

Kali Linux mein bohat se powerful tools hotay hain jo different tasks ke liye use hotay hain.

Nmap

Nmap aik network scanning tool ha. Ye check karta ha ke network mein konsi devices connected hain aur kon se ports open hain. Cybersecurity students is tool ko reconnaissance ke liye use karte hain.

Wireshark

Wireshark aik packet analyzer tool ha. Ye network traffic ko monitor karta ha aur dikhata ha ke data network mein kis tarah travel kar raha ha.

Metasploit

Metasploit aik famous penetration testing framework ha. Is tool ko vulnerabilities test karne aur exploit karne ke liye use kiya jata ha.

Burp Suite

Burp Suite web application security testing tool ha. Ye websites ko test karta ha aur vulnerabilities jaise SQL Injection aur XSS ko identify karne mein help karta ha.

Aircrack-ng

Aircrack-ng wireless network security testing ke liye use hota ha. Ye WiFi security ko test karne mein madad karta ha.

Basic Steps of Ethical Hacking

1. Reconnaissance – information collect karna.
 2. Scanning – target ko scan karna.
 3. Gaining Access – vulnerabilities exploit karna.
 4. Maintaining Access – access ko maintain karna.
 5. Reporting – final security report banana.
-

Why Learn Kali Linux?

Kali Linux seekhne se students cybersecurity field mein strong skills develop kar sakte hain. Ye penetration testing, bug bounty aur digital security mein help karta ha. Aaj kal companies bhi skilled ethical hackers ko hire karti hain.

Conclusion

Kali Linux aur ethical hacking cybersecurity ki duniya ka important part hain. Agar in tools ko responsibly aur legal way mein use kiya jaye to ye systems ko secure banane mein bohat madadgar sabit hotay hain.
