REPORT ON
KALI LINUX ESSENTIALS COMMAND

By

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1. pwd

1. **Purpose**: Identifies the current directory location within the filesystem hierarchy.
2. **Command**: pwd
3. **Description**: Prints the full absolute path of the current working directory to the standard output.

2. ls

1. **Purpose**: Enumerates files and directories within the current or specified location.
2. **Command**: ls
3. **Description**: Lists the names of files and subdirectories contained within the active directory.

3. cd

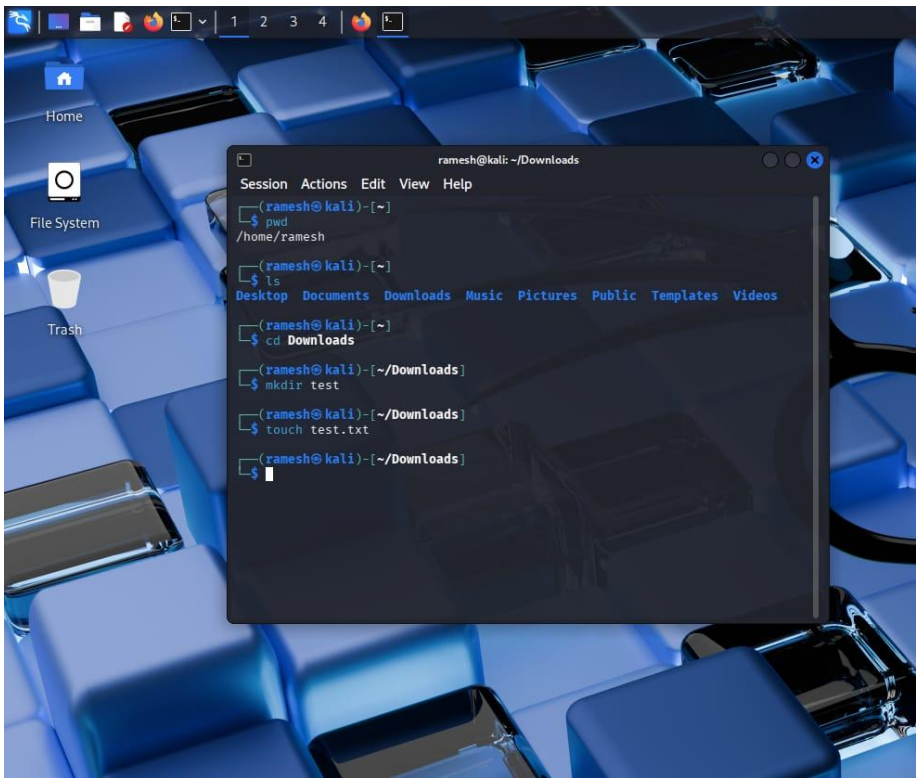
1. **Purpose**: Navigates between different directories in the filesystem.
2. **Command**: cd
3. **Description**: Changes the shell's current working directory to the path specified.

4. mkdir

1. **Purpose**: Creates new folders to organize files and data.
2. **Command**: mkdir
3. **Description**: Generates a new, empty directory with the specified name at the target location.

5. touch

1. **Purpose**: Updates file timestamps or creates new empty files.
2. **Command**: touch
3. **Description**: Creates a new zero-byte file if it does not exist or updates the modification time if it does.



6. rm

1. **Purpose**: Removes files from the filesystem.
2. **Command**: rm
3. **Description**: Unlinks and deletes the specified file from the disk storage.

7. rm -r

1. **Purpose**: Removes directories and their contents recursively.
2. **Command**: rm -r
3. **Description**: Deletes a directory along with all files and subdirectories contained inside it.

8. nano

1. **Purpose**: Edits text files directly within the terminal interface.
2. **Command**: nano
3. **Description**: Launches a simple, modeless command-line text editor for modifying file contents.

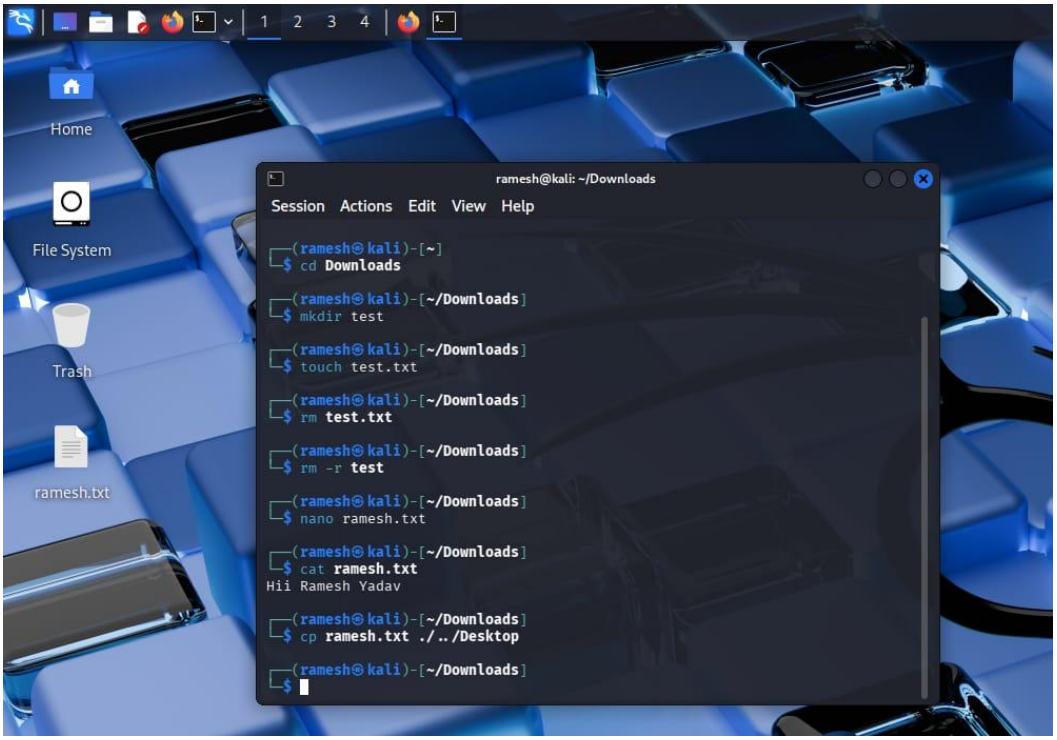
9. cat

1. **Purpose**: Displays file contents or concatenates multiple files.
2. **Command**: cat

3. **Description**: Reads data from a file and outputs it directly to the terminal screen.

10. cp

1. **Purpose**: Duplicates files or directories to a new location.
2. **Command**: cp
3. **Description**: Creates an exact copy of the source file at the specified destination path.



11. mv

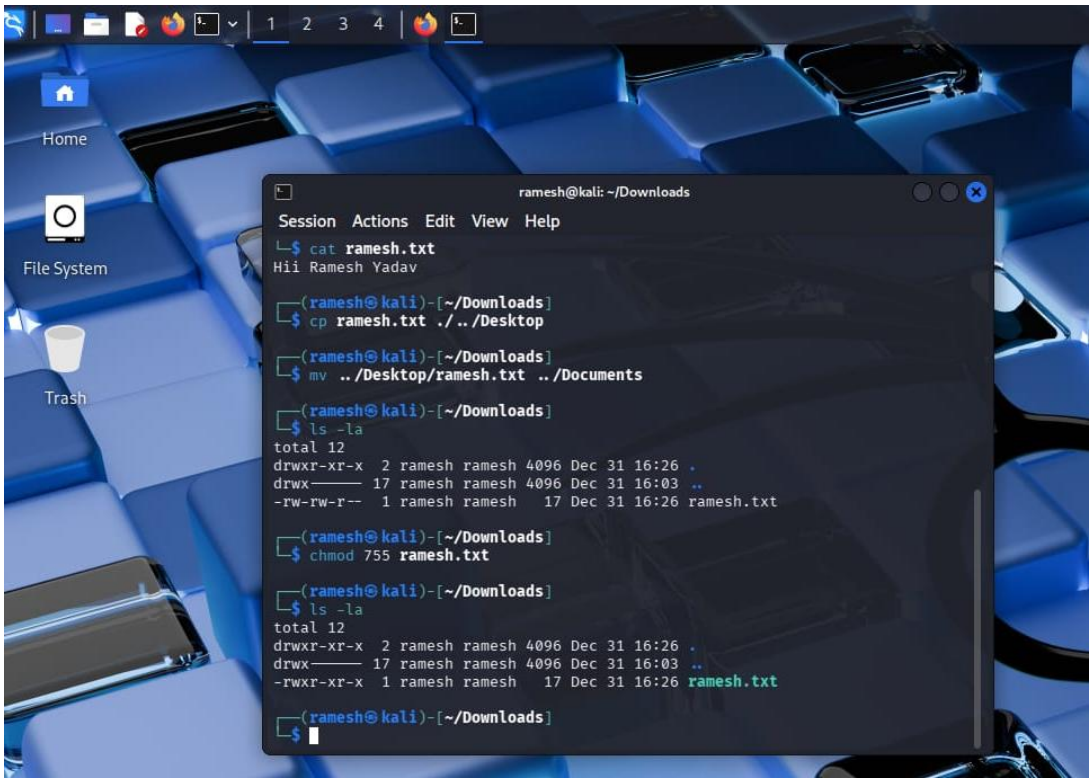
1. **Purpose**: Moves files to a new location or renames them.
2. **Command**: mv
3. **Description**: Relocates a file to a new directory or changes its filename in place.

12. ls -la

1. **Purpose**: Lists all files including hidden ones with detailed permission information.
2. **Command**: ls -la
3. **Description**: Displays a detailed long-format list of all files, including those starting with a dot.

13. chmod

1. **Purpose**: Modifies file access permissions for users and groups.
2. **Command**: chmod
3. **Description**: Changes the read, write, and execute permissions of a specific file or directory.



14. chown

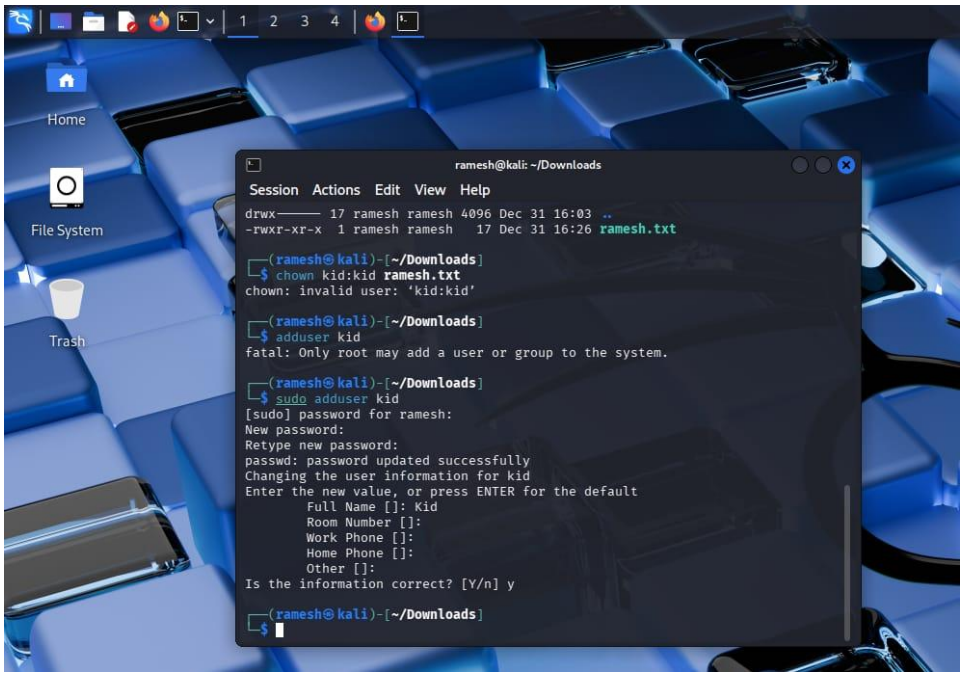
1. **Purpose**: Changes the user and group ownership of a file.
2. **Command**: chown
3. **Description**: Reassigns the ownership rights of a file or directory to a different user or group.

15. adduser

1. **Purpose**: Creates a new user account on the system.
2. **Command**: adduser
3. **Description**: Adds a new user to the system and creates their home directory and configuration.

16. sudo adduser

1. **Purpose**: Executes a command with superuser (root) privileges.
2. **Command**: sudo
3. **Description**: Temporarily grants administrative rights to a standard user for command execution.



17. sudo chown

1. **Purpose**: Changes file ownership using administrative privileges.
2. **Command**: sudo chown
3. **Description**: Forces a change in file ownership that a standard user permission would normally deny.

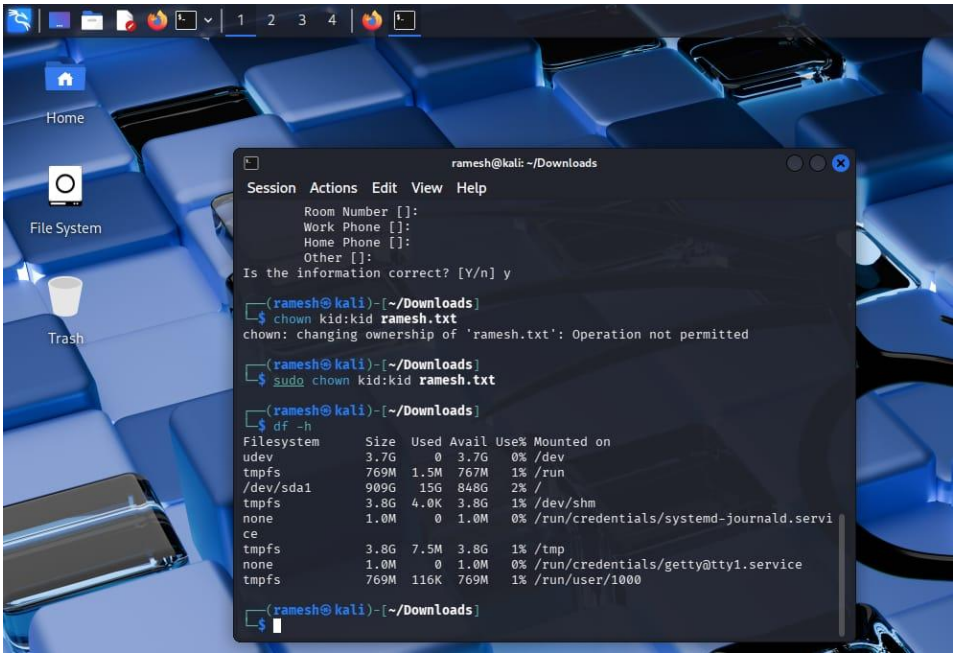
18. df -h

1. **Purpose**: Displays disk space usage in a human-readable format.
2. **Command**: df -h
3. **Description**: Shows available and used disk space on mounted filesystems using units like GB and MB.

19. ps aux

1. **Purpose**: precise snapshot of all running processes on the system.
2. **Command**: ps aux

3. **Description**: Lists detailed information for all active processes from all users.

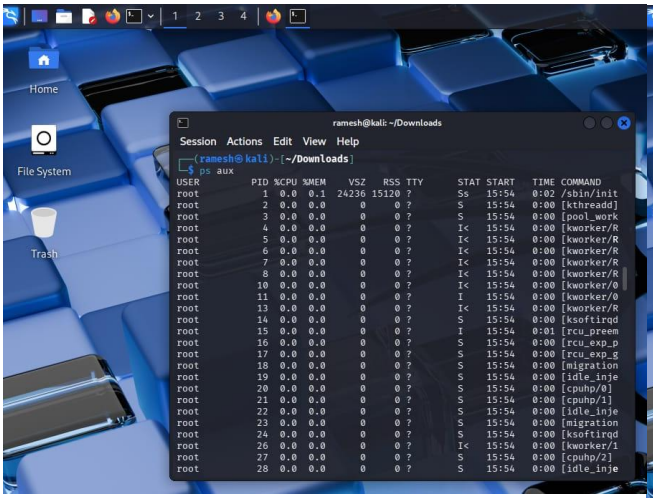


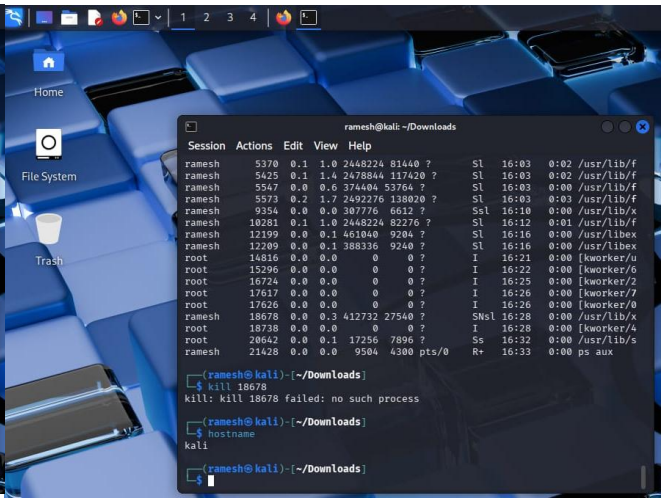
20. kill

1. **Purpose**: Terminates a specific running process.
2. **Command**: kill
3. **Description**: Sends a signal to a process ID (PID) instructing it to stop or exit.

21. hostname

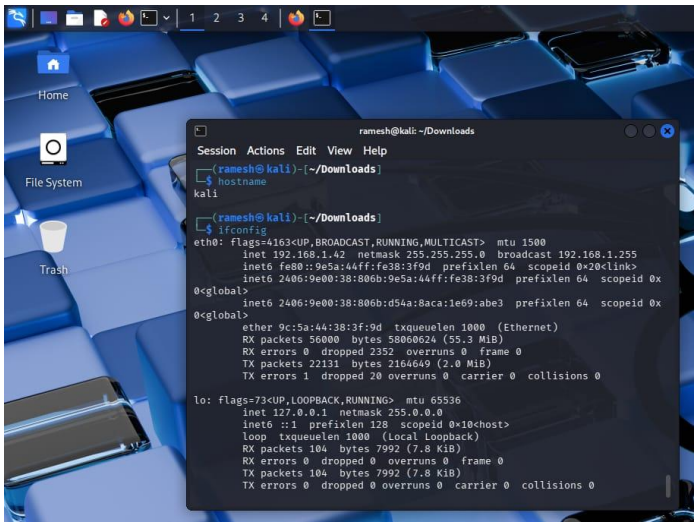
1. **Purpose**: Displays or sets the system's network name.
2. **Command**: hostname
3. **Description**: specific command to show or change the name of the host machine.





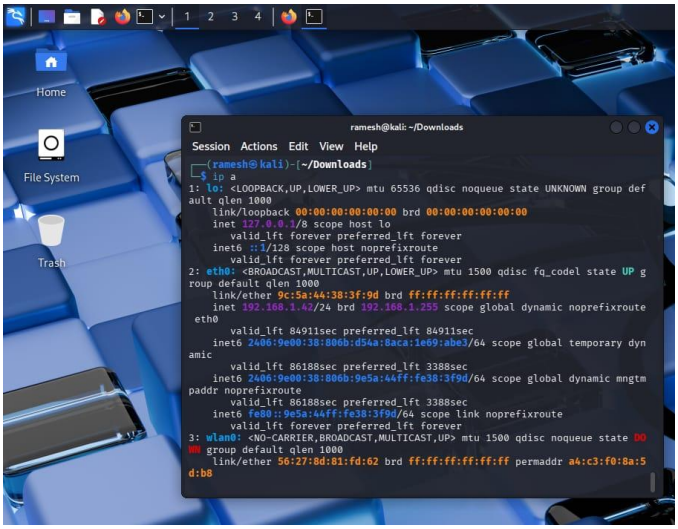
22. ifconfig

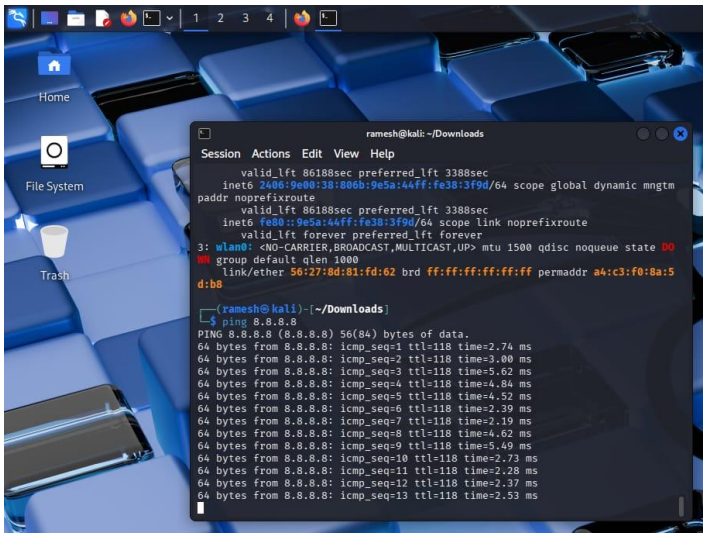
1. **Purpose**: Configures or displays network interface parameters.
2. **Command**: ifconfig
3. **Description**: specific legacy tool to view IP addresses, MAC addresses, and active network interfaces.



23. ip

1. **Purpose**: Manages network routing, devices, and tunnels.
2. **Command**: ip
3. **Description**: Modern and powerful utility for configuring network interfaces and viewing routing tables.



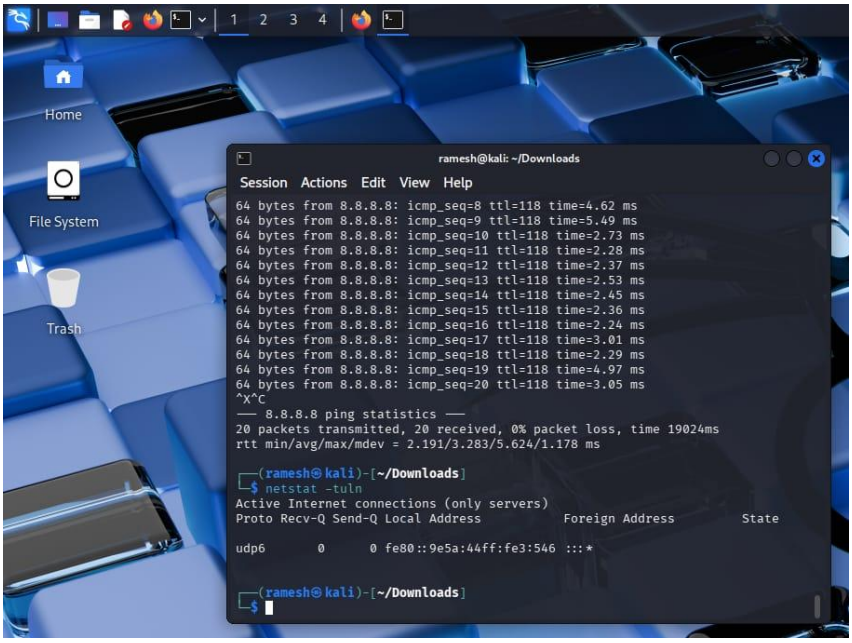


24. ping

1. **Purpose**: Tests connectivity to a remote network host.
2. **Command**: ping
3. **Description**: Sends ICMP Echo Request packets to a target to verify reachability and measure latency.

25. netstat -tuln

1. **Purpose**: Lists all active listening ports on the system.
2. **Command**: netstat -tuln
3. **Description**: Displays TCP and UDP ports that are currently open and listening for connections.



26. nmap

1. **Purpose**: Scans networks to discover hosts and open ports.
2. **Command**: nmap
3. **Description**: Probes a target IP to determine active services, operating systems, and vulnerabilities.

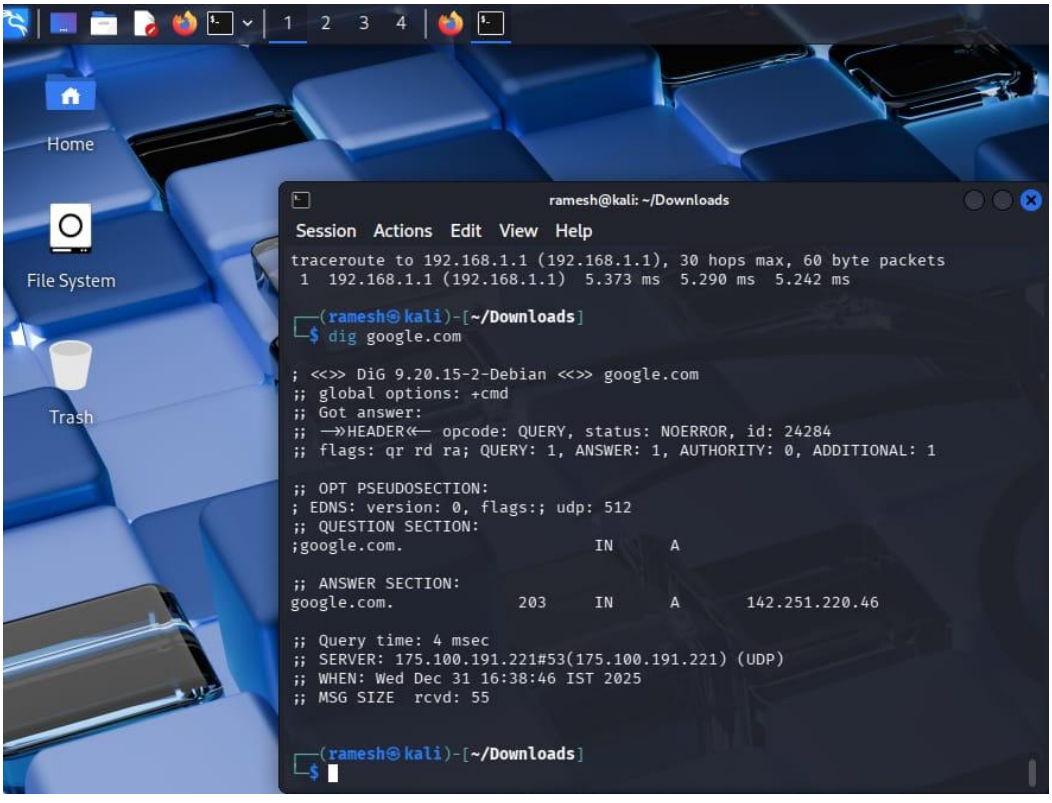
27. traceroute

1. **Purpose**: Traces the path packets take to reach a destination.
2. **Command**: traceroute

3. **Description**: Shows every router hop between the local system and the target server.

28. dig

1. **Purpose**: Queries DNS servers for domain records.
2. **Command**: dig
3. **Description**: Retrieves detailed DNS information like A, MX, and TXT records for a domain.



29. route

1. **Purpose**: Viewing and manipulating the IP routing table.
2. **Command**: route
3. **Description**: Displays or modifies the table that controls where network traffic is directed.

30. curl

1. **Purpose**: Transfers data from or to a server using URLs.
2. **Command**: curl
3. **Description**: command line tool to send HTTP requests or download files from the web.

31. scp

1. **Purpose**: Securely copies files between hosts over a network.
2. **Command**: scp
3. **Description**: Transfers files using the SSH protocol to ensure data is encrypted during transit.

32. ssh

1. **Purpose**: Log into a remote machine securely.
2. **Command**: ssh
3. **Description**: Establishes an encrypted remote command-line session with another computer.

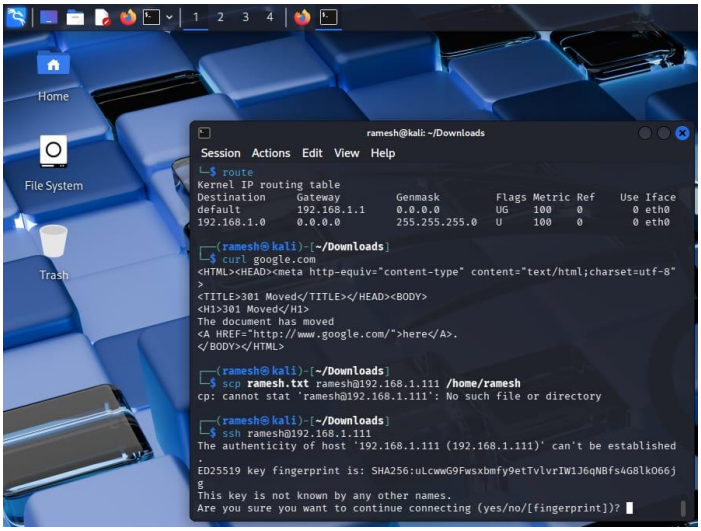
33. airmon-ng

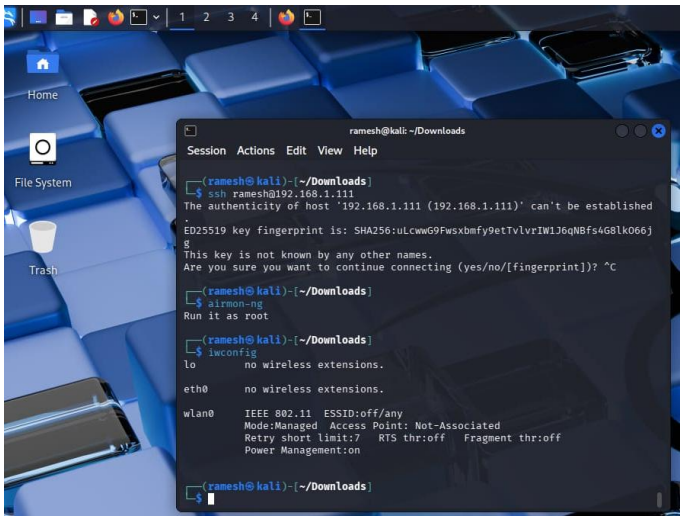
1. **Purpose**: Enables monitor mode on wireless network interfaces.
2. **Command**: airmon-ng
3. **Description**: Configures a Wi-Fi card to capture all traffic rather than just packets sent to it.

34. iwconfig

1. **Purpose**: Configures wireless network interface parameters.
2. **Command**: iwconfig

3. **Description**: Sets specific wireless settings like frequency, channel, and transmission power.





35. nikto -h

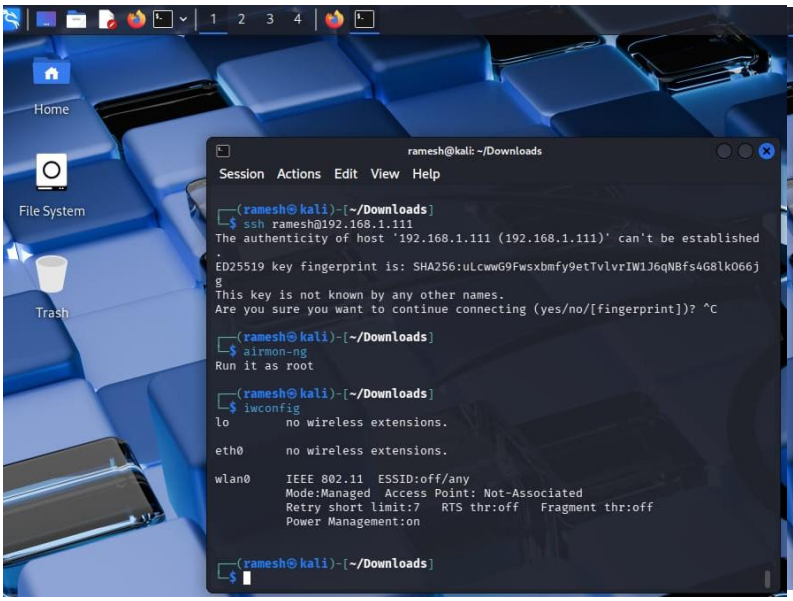
1. **Purpose**: Scans web servers for dangerous files and configurations.
2. **Command**: nikto -h
3. **Description**: Performs a comprehensive test against a specified web host for known vulnerabilities.

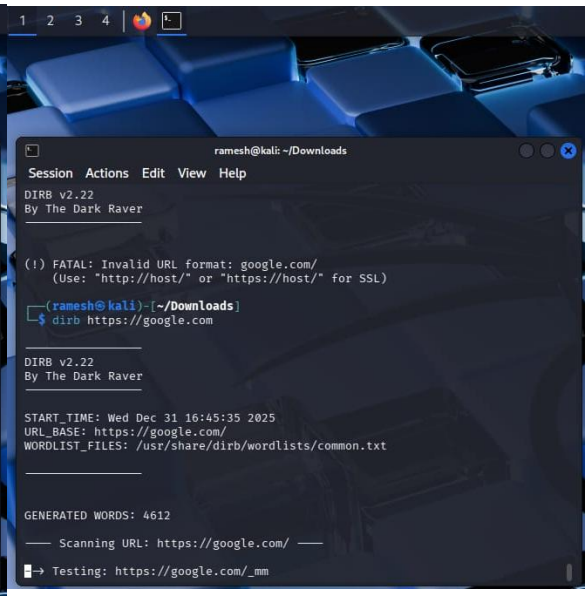
36. dirb

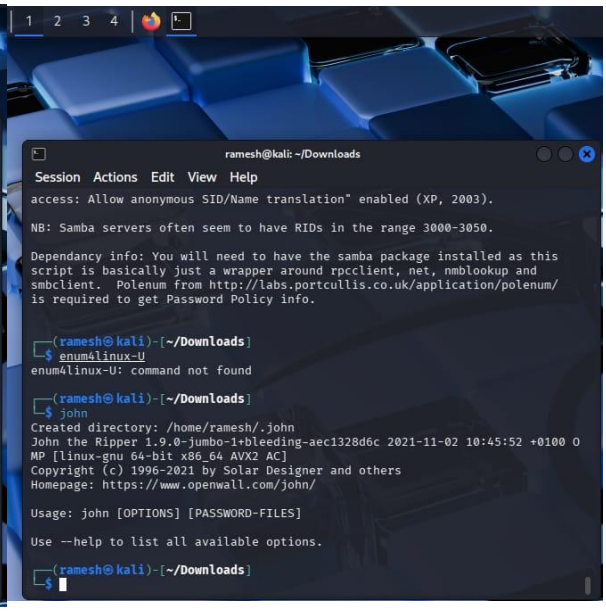
1. **Purpose**: Brute-forces hidden web directories and files.
2. **Command**: dirb
3. **Description**: Scans a website using a wordlist to find unlinked or hidden content.

37. john

1. **Purpose**: Cracks password hashes offline.
2. **Command**: john
3. **Description**: Detects weak passwords by processing stolen hash files against dictionary lists.

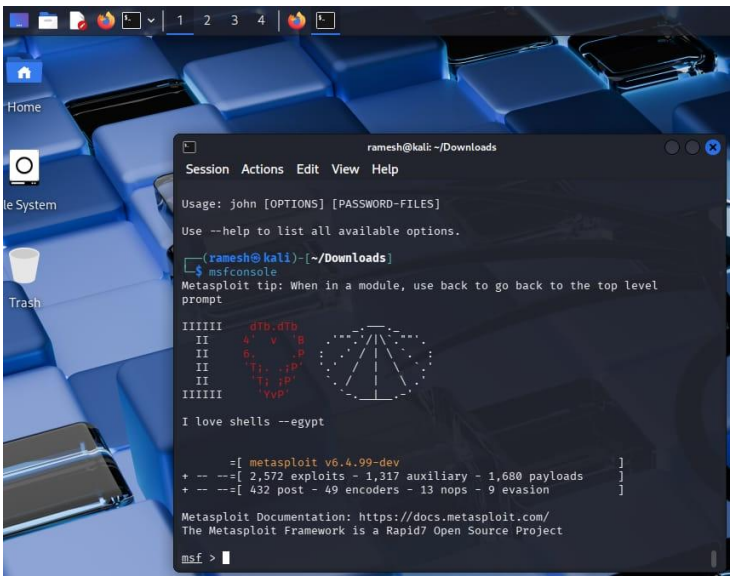






38. msfconsole

1. **Purpose**: Provides a centralized interface for the Metasploit Framework.
2. **Command**: msfconsole
3. **Description**: Manages and executes exploits, payloads, and auxiliary modules from a unified console.



39. sslscan

1. **Purpose**: Assesses SSL/TLS server configuration.
2. **Command**: sslscan
3. **Description**: Identifies supported ciphers and protocols to detect weak encryption settings.

40. dnsrecon

1. **Purpose**: Performs advanced DNS enumeration and scanning.
2. **Command**: dnsrecon
3. **Description**: Maps domain infrastructure by checking for zone transfers, subdomains, and records.