

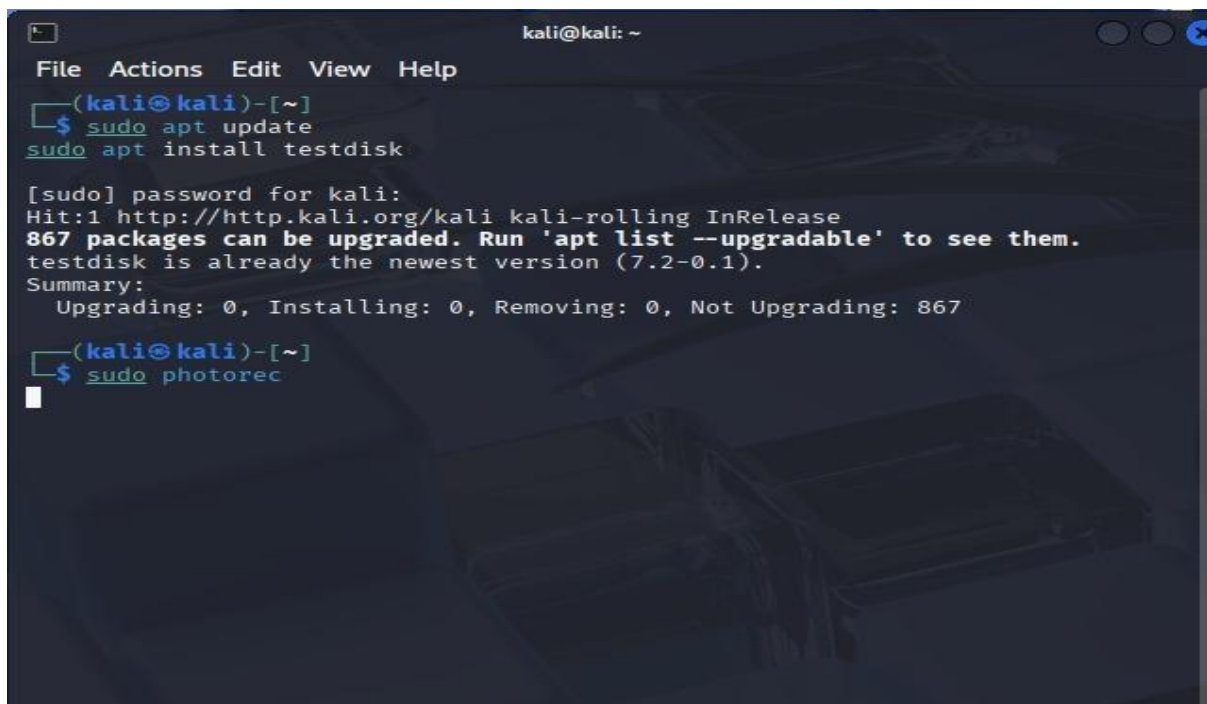
## EXP NO:2 Recover deleted or damaged files from a storage device using Test Disk

### AIM:

To recover deleted or damaged partitions and files from a storage device using **TestDisk**.

### Procedure:

TestDisk is an open-source data recovery tool used to detect and repair lost or corrupted partitions. It analyzes disk structures, recovers deleted files, and restores damaged boot sectors. The tool helps rebuild partition tables and make lost data accessible again.



```
kali@kali: ~  
File Actions Edit View Help  
(kali@kali)-[~]  
$ sudo apt update  
sudo apt install testdisk  
[sudo] password for kali:  
Hit:1 http://http.kali.org/kali kali-rolling InRelease  
867 packages can be upgraded. Run 'apt list --upgradable' to see them.  
testdisk is already the newest version (7.2-0.1).  
Summary:  
  Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 867  
(kali@kali)-[~]  
$ sudo photorec  
█
```

```
kali@kali: ~  
File Actions Edit View Help  
PhotoRec 7.2, Data Recovery Utility, February 2024  
Christophe GRENIER <grenier@cgsecurity.org>  
https://www.cgsecurity.org  
  
PhotoRec is free software, and  
comes with ABSOLUTELY NO WARRANTY.  
  
Select a media and choose 'Proceed' using arrow keys:  
>Disk /dev/sda - 86 GB / 80 GiB (RO) - VMware Virtual S  
  
>[Proceed ] [ Quit ]  
  
Note:  
Disk capacity must be correctly detected for a successful recovery.  
If a disk listed above has an incorrect size, check HD jumper settings and BIOS  
detection, and install the latest OS patches and disk drivers.
```

```
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PhotoRec 7.2, Data Recovery Utility, February 2024  
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https://www.cgsecurity.org  
  
Disk /dev/sda - 86 GB / 80 GiB (R0) - VMware Virtual S  
  
Partition      Start      End      Size in sectors  
No partition    0  0  1 10455 145 40 167968750 [Whole disk]  
> 1 * Linux      0 32 33 10455 145 40 167966702 [root]  
  
> [ Search ] [Options] [File Opt] [ Quit ]  
Start file recovery
```

```
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PhotoRec 7.2, Data Recovery Utility, February 2024  
Christophe GRENIER <grenier@cgsecurity.org>  
https://www.cgsecurity.org  
  
1 * Linux      0 32 33 10455 145 40 167966702 [root]  
  
To recover lost files, PhotoRec needs to know the filesystem type where the  
file were stored:  
[ ext2/ext3 ] ext2/ext3/ext4 filesystem  
> [ Other ] FAT/NTFS/HFS+/ReiserFS/ ...
```

```
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https://www.cgsecurity.org  
  
1 * Linux 0 32 33 10455 145 40 167966702 [root]  
  
Please choose if all space needs to be analysed:  
>[ Free ] Scan for file from ext2/ext3 unallocated space only  
[ Whole ] Extract files from whole partition
```

```
kali@kali: ~  
File Actions Edit View Help  
PhotoRec 7.2, Data Recovery Utility, February 2024  
  
Please select a destination to save the recovered files to.  
Do not choose to write the files to the same partition they were stored on.  
Keys: Arrow keys to select another directory  
      C when the destination is correct  
      Q to quit  
Directory /home/kali  
>drwxr-xr-x 1000 1000 4096 27-Aug-2025 12:09 Documents  
drwxr-xr-x 1000 1000 4096 27-Aug-2025 12:09 Downloads  
drwxr-xr-x 1000 1000 4096 27-Aug-2025 12:09 Music  
drwxr-xr-x 1000 1000 4096 31-Aug-2025 00:09 Pictures  
drwxr-xr-x 1000 1000 4096 27-Aug-2025 12:09 Public  
drwxr-xr-x 1000 1000 4096 27-Aug-2025 12:09 Templates  
drwxr-xr-x 1000 1000 4096 27-Aug-2025 12:09 Videos  
drwxr-xr-x 0 0 20480 31-Aug-2025 00:02 recup_dir.1  
drwxr-xr-x 0 0 20480 31-Aug-2025 00:03 recup_dir.10  
drwxr-xr-x 0 0 20480 31-Aug-2025 00:03 recup_dir.100  
drwxr-xr-x 0 0 20480 31-Aug-2025 00:03 recup_dir.101  
drwxr-xr-x 0 0 20480 31-Aug-2025 00:03 recup_dir.102  
drwxr-xr-x 0 0 20480 31-Aug-2025 00:03 recup_dir.103  
drwxr-xr-x 0 0 20480 31-Aug-2025 00:03 recup_dir.104  
drwxr-xr-x 0 0 20480 31-Aug-2025 00:03 recup_dir.105  
drwxr-xr-x 0 0 20480 31-Aug-2025 00:03 recup_dir.106  
drwxr-xr-x 0 0 20480 31-Aug-2025 00:03 recup_dir.107  
drwxr-xr-x 0 0 20480 31-Aug-2025 00:03 recup_dir.108  
drwxr-xr-x 0 0 20480 31-Aug-2025 00:03 recup_dir.109  
Next
```



## Result

```
kali@kali: ~  
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PhotoRec 7.2, Data Recovery Utility, February 2024  
Christophe GRENIER <grenier@cgsecurity.org>  
https://www.cgsecurity.org  
  
Disk /dev/sda - 86 GB / 80 GiB (RO) - VMware Virtual S  
Partition      Start      End      Size in sectors  
1 * Linux      0 32 33 10455 145 40 167966702 [root]  
  
Destination /home/kali/recup_dir  
  
Pass 1 - Reading sector 1855504/167966702, 450 files found  
Elapsed time 0h00m30s - Estimated time to completion 0h44m45  
txt: 221 recovered  
png: 110 recovered  
tx?: 61 recovered  
pdf: 25 recovered  
exe: 15 recovered  
zip: 5 recovered  
gz: 3 recovered  
elf: 2 recovered  
gif: 2 recovered  
others: 6 recovered  
Stop
```

```
kali@kali: ~  
File Actions Edit View Help  
PhotoRec 7.2, Data Recovery Utility, February 2024  
Christophe GRENIER <grenier@cgsecurity.org>  
https://www.cgsecurity.org  
  
Disk /dev/sda - 86 GB / 80 GiB (RO) - VMware Virtual S  
Partition      Start      End      Size in sectors  
1 * Linux      0 32 33 10455 145 40 167966702 [root]  
  
942994 files saved in /home/kali/recup_dir directory.  
Recovery completed.  
  
You are welcome to donate to support and encourage further development  
https://www.cgsecurity.org/wiki/Donation  
  
[ Quit ]
```