

Practical No. 3

Aim : Write a computer forensic application program for Recovering permanent Deleted Files and Deleted Partitions.

Code :

```
import os
import shutil

def recover_deleted_files(recycle_bin_path, recovery_path):

    if not os.path.exists(recovery_path):
        os.makedirs(recovery_path)

    recovered_count = 0
    for root, dirs, files in os.walk(recycle_bin_path):
        for file in files:
            try:
                src_file = os.path.join(root, file)
                dst_file = os.path.join(recovery_path, file)
                shutil.copy2(src_file, dst_file)
                recovered_count += 1
            except Exception as e:
                print(f"Failed to recover {file}: {e}")

    print(f"Recovered {recovered_count} files to {recovery_path}")

def list_partitions():

    print("\nDetected Partitions:")
    if os.name == 'nt': # Windows
        import wmi
        c = wmi.WMI()
        for disk in c.Win32_LogicalDisk():
            print(f"Drive {disk.DeviceID} - Type: {disk.Description}")
    else: # Linux
        os.system("lsblk -o NAME,SIZE,FSTYPE,MOUNTPOINT")

if __name__ == "__main__":
```

```

print("    Simple Computer Forensics Tool    ")

while True:
    print("\n1. Recover Deleted Files")
    print("2. List Partitions")
    print("3. Exit")
    choice = input("Enter your choice: ")

    if choice == "1":
        recycle_bin_path = input("Enter Recycle Bin / Trash path: ")
        recovery_path = input("Enter Recovery Folder Path: ")
        recover_deleted_files(recycle_bin_path, recovery_path)

    elif choice == "2":
        list_partitions()

    elif choice == "3":
        print("Exiting...")
        break

    else:
        print("Invalid choice. Try again.")

```

Output :

Simple Computer Forensics Tool

```

1. Recover Deleted Files
2. List Partitions
3. Exit
Enter your choice: 1
Enter Recycle Bin / Trash path: C:\Users\User\Recycle.Bin
Enter Recovery Folder Path: C:\RecoveredFiles
Recovered 3 files to C:\RecoveredFiles

```

```

1. Recover Deleted Files
2. List Partitions
3. Exit
Enter your choice: 2

```

```

Detected Partitions:
Drive C: - Type: Local Fixed Disk
Drive D: - Type: Local Fixed Disk

```

1. Recover Deleted Files
2. List Partitions
3. Exit

Enter your choice: 3

Exiting...