

File Manager



END TERM PROJECT REPORT

by

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Section: K19QW

Roll Numbers: 31,35,49

LOVELY PROFESSIONAL UNIVERSITY
PUNJAB (INDIA)

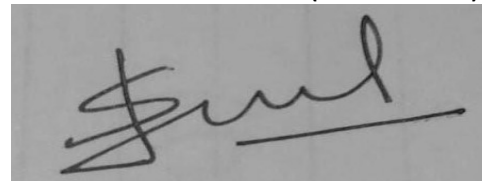
Department of Intelligent Systems,
School of Computer Science Engineering,
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Student Declaration

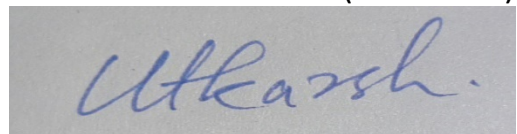
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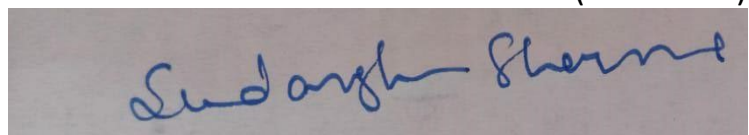
Sachidananda Mohanta (11902608)

A black and white photograph of a handwritten signature in black ink on a light-colored background. The signature is stylized and appears to be 'Sachidananda'.

Utkarsh Kumar (11902260)

A black and white photograph of a handwritten signature in blue ink on a light-colored background. The signature is 'Utkarsh'.

Sudhanshu sharma (11909374)

A black and white photograph of a handwritten signature in blue ink on a light-colored background. The signature is 'Sudhanshu sharma'.

Roll Number: Sachidananda Mohanta (11902608) - 31

Utkarsh Kumar (11902260) - 35

Sudhanshu sharma (11909374) - 49

Place: LPU Phagwara Punjab

Date: 31st oct 2020

FILE MANAGER



Using



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BONAFIDE CERTIFICATE

Certified that this project report "File Manager" is the bonafide work of " Sachidananda Mohanta (11902608), Utkarsh Kumar (11902260) and Sudhanshu sharma (11909374) " who carried out the project work under my supervision.

Signature of the Supervisor:

(Due to Covid19, signature is exempted)

Name of Supervisor: Dr Dhanpratap Singh

ID of Supervisor: 25821

Department of Supervisor: School of Computer Science and
Engineering

1) INTRODUCTION

Python is a high-level, object-oriented, interpreted programming language, which has garnered worldwide attention. Stack Overflow found out that 38.8% of its users mainly use Python for their projects. Python was created by a developer called Guido Van Rossum. Python is and always has been easy to learn and master. It is very beginner friendly and the syntax is extremely simple to read and follow through.

Python is a high-level, interpreted and general-purpose dynamic programming language that focuses on code readability. They usually involve imperative and object-oriented functional programming. It has a comprehensive and large standard library that has automatic memory management and dynamic features.

Python-file-manager is a file manager (for windows) based on ***Python 3.7***. With this python-based file explorer you can view files, folders and perform actions on them. Actions such as moving them, deleting them (permanently or sending them to recycle bin).

2) OBJECTIVE

Associated with any file-management system and collection of files is a file directory. The directory contains information about the files including attributes, location and ownership. Much of this information, especially that concern with storage, is managed by the operating system. The directory is itself a file, owned by the operating system and accessible by various to users and applications, information is generally provided indirectly by system routines. Thus, users File System Management cannot directly access the directory even in read-only mode.

SO, OUR OBJECTIVES IN THIS PROJECT IS TO DEVELOP A FILE MANAGER WHICH CAN PERFORM THE FOLLOWING TASKS :

1. SEARCH THE FILE WITH PATH DETAILS
2. Delete files/folder permanently
3. Send files/folder to Recycle Bin
4. Directly open files from the manager
5. Expand folders
6. Move files/folders to another location
7. Copy files/folders to another location

3) DESCRIPTION

The code runs and asks for the operation the user wants to conduct with the files. Each operation is performed after the selected input by the user

3.1) Functions you can perform on files/folders:

3.1.1) Directly open files from the manager

3.1.2) Delete files/folder permanently/temporarily (recycle bin)

3.1.3) Move or copy files/folders to another location

3.1.4) Rename the file

3.2) Source Code and module used

3.2.1) Modules Used:

1. send2trash

2. os

3. shutil

4. sys

****Python 3.7 or above is recommended for using this program.**

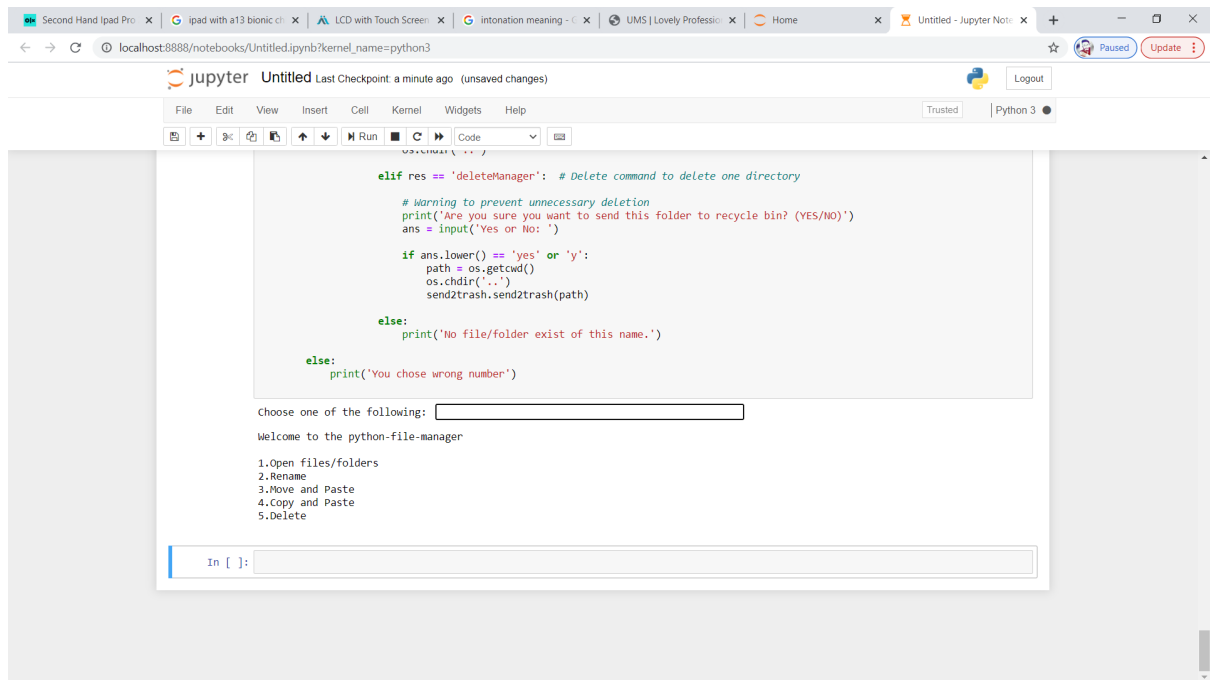
****You need to install send2trash module first.**

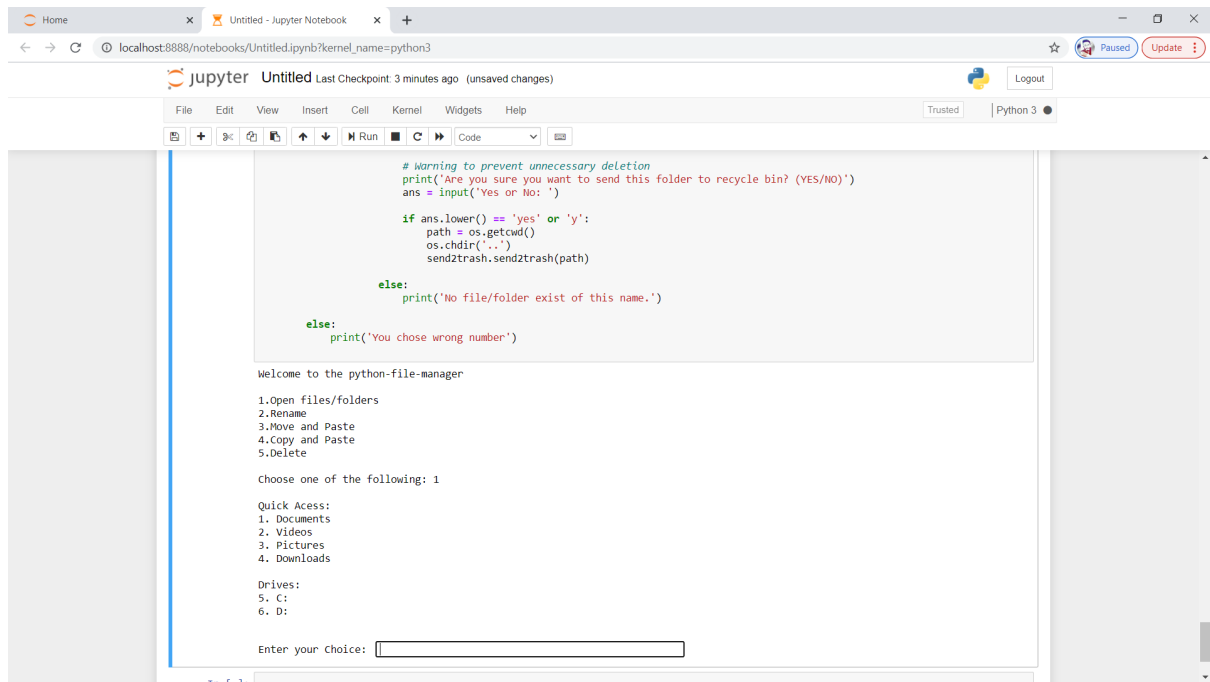
****> pip install send2trash**

send2trash is a python module that sends files/folders to Recycle Bin instead of permanently deleting it.

3.1.1)

Directly open files from the manager





The image shows a Jupyter Notebook interface in a web browser. The browser tabs include 'Home' and 'Untitled - Jupyter Notebook'. The address bar shows 'localhost:8888/notebooks/Untitled.ipynb?kernel_name=python3'. The Jupyter interface has a menu bar (File, Edit, View, Insert, Cell, Kernel, Widgets, Help) and a toolbar with icons for file operations and execution. The code cell contains the following Python code:

```
# Warning to prevent unnecessary deletion
print('Are you sure you want to send this folder to recycle bin? (YES/NO)')
ans = input('Yes or No: ')

if ans.lower() == 'yes' or 'y':
    path = os.getcwd()
    os.chdir('.')
    send2trash.send2trash(path)
else:
    print('No file/folder exist of this name.')
else:
    print('You chose wrong number')
```

The output of the code is as follows:

```
Welcome to the python-file-manager

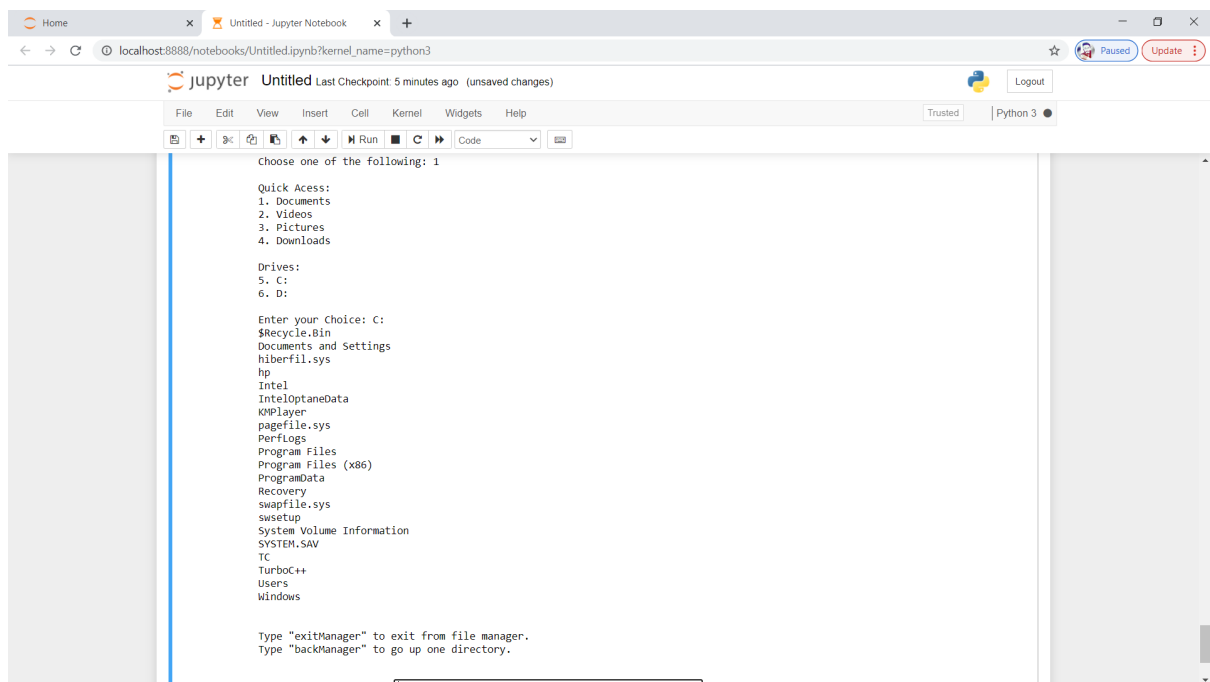
1.Open files/folders
2.Rename
3.Move and Paste
4.Copy and Paste
5.Delete

Choose one of the following: 1

Quick Access:
1. Documents
2. Videos
3. Pictures
4. Downloads

Drives:
5. C:
6. D:

Enter your Choice: 
```



The image shows the same Jupyter Notebook interface, but now displaying the output of the file manager. The output is as follows:

```
Choose one of the following: 1

Quick Access:
1. Documents
2. Videos
3. Pictures
4. Downloads

Drives:
5. C:
6. D:

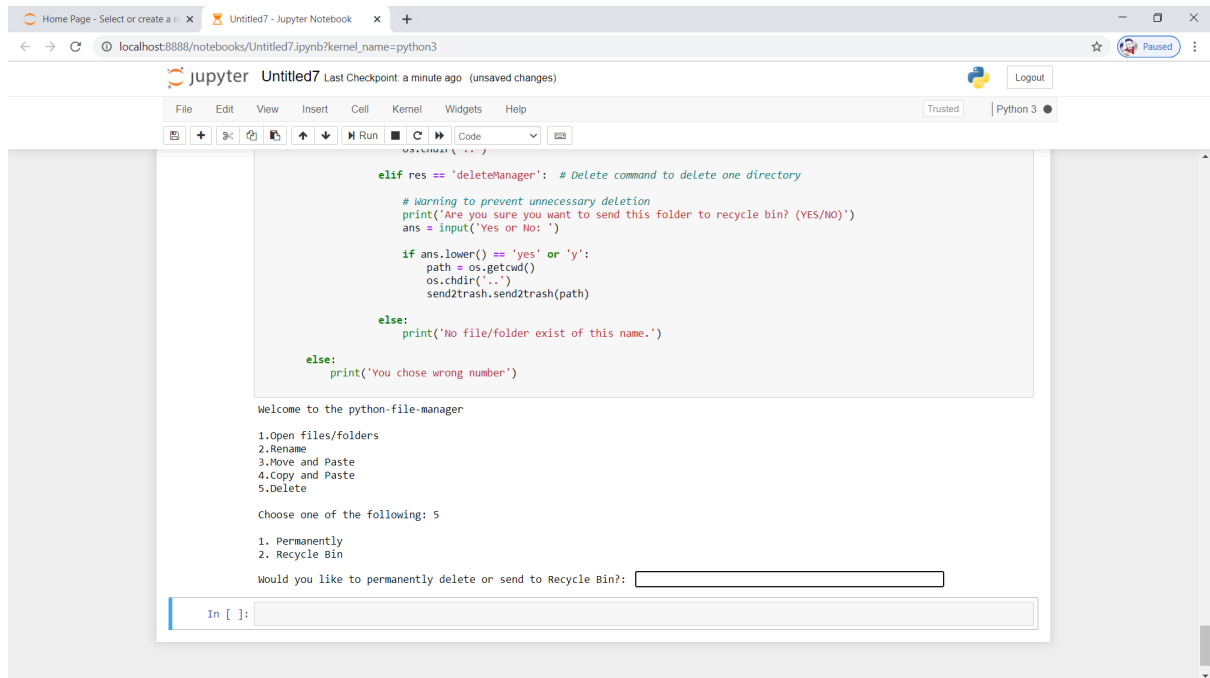
Enter your Choice: C:
$Recycle.Bin
Documents and Settings
hiberfil.sys
hp
Intel
IntelOptaneData
KMPayer
pagefile.sys
PerfLogs
Program Files
Program Files (x86)
ProgramData
Recovery
swapfile.sys
swsetup
System Volume Information
SYSTEM.SAV
TC
TurboC++
Users
Windows

Type "exitManager" to exit from file manager.
Type "backManager" to go up one directory.

Choose a file/folder: 
```

3.1.2) Delete files/folder permanently/temporarily (recycle bin)

Deleting image file sign.jpg



The screenshot shows a Jupyter Notebook titled 'Untitled7' running on a local host. The code defines a 'deleteManager' function that prompts the user for a file or folder to delete and whether to send it to the recycle bin. The output shows the program running and displaying a list of files in the current directory.

```
def deleteManager():  
    # Delete command to delete one directory  
    # Warning to prevent unnecessary deletion  
    print('Are you sure you want to send this folder to recycle bin? (YES/NO)')  
    ans = input('Yes or No: ')  
  
    if ans.lower() == 'yes' or 'y':  
        path = os.getcwd()  
        os.chdir('.')  
        send2trash.send2trash(path)  
  
    else:  
        print('No file/folder exist of this name.')  
  
else:  
    print('You chose wrong number')
```

Welcome to the python-file-manager

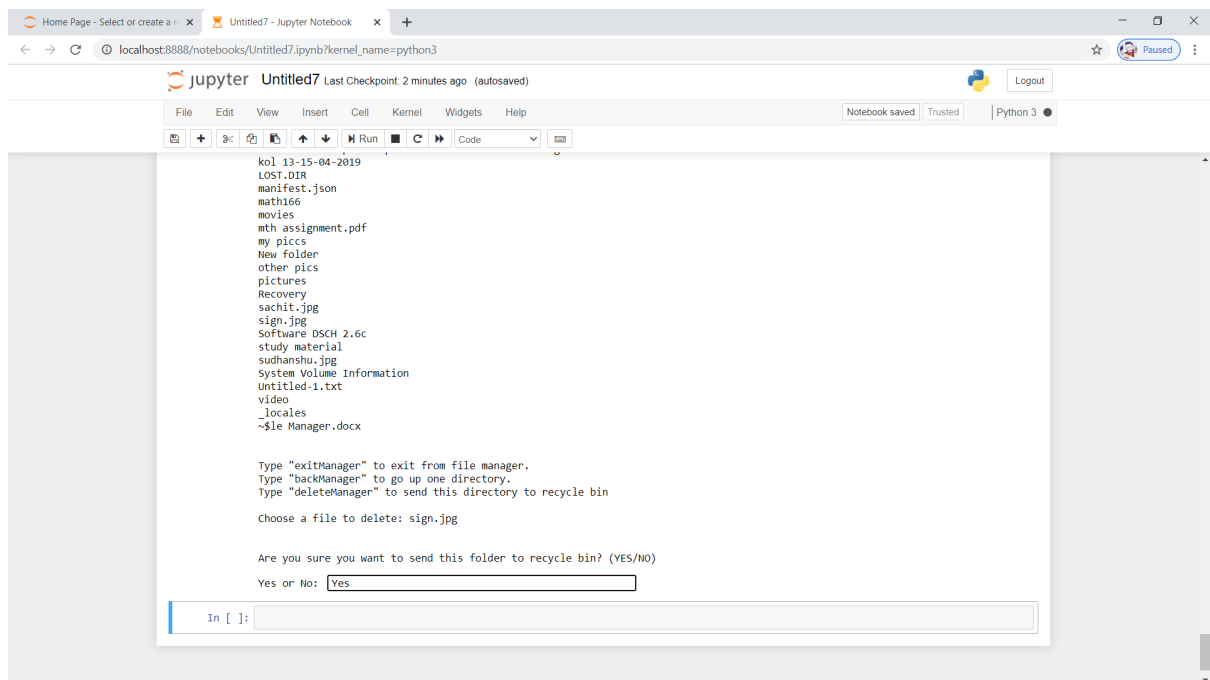
1.Open files/folders
2.Rename
3.Move and Paste
4.Copy and Paste
5.Delete

Choose one of the following: 5

1. Permanently
2. Recycle Bin

Would you like to permanently delete or send to Recycle Bin?:

In []:



The screenshot shows the same Jupyter Notebook, but now the file manager is displaying a list of files in the current directory. The user has entered 'sign.jpg' as the file to delete and 'Yes' as the response to the confirmation prompt.

```
kol 13-15-04-2019  
LOST.DIR  
manifest.json  
math166  
movies  
mth assignment.pdf  
my pics  
New folder  
other pics  
pictures  
Recovery  
sachit.jpg  
sign.jpg  
Software DSCH 2.6c  
study material  
sudhanshu.jpg  
System Volume Information  
Untitled-1.txt  
video  
_locales  
~$le Manager.docx
```

Type "exitManager" to exit from file manager.
Type "backManager" to go up one directory.
Type "deleteManager" to send this directory to recycle bin

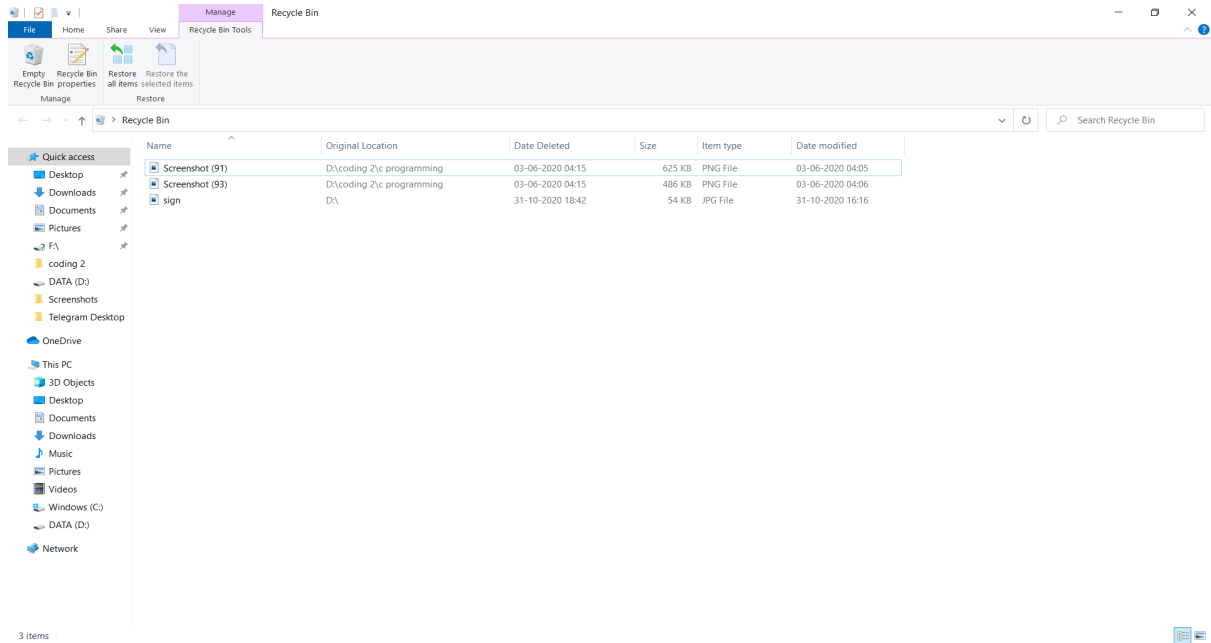
Choose a file to delete: sign.jpg

Are you sure you want to send this folder to recycle bin? (YES/NO)

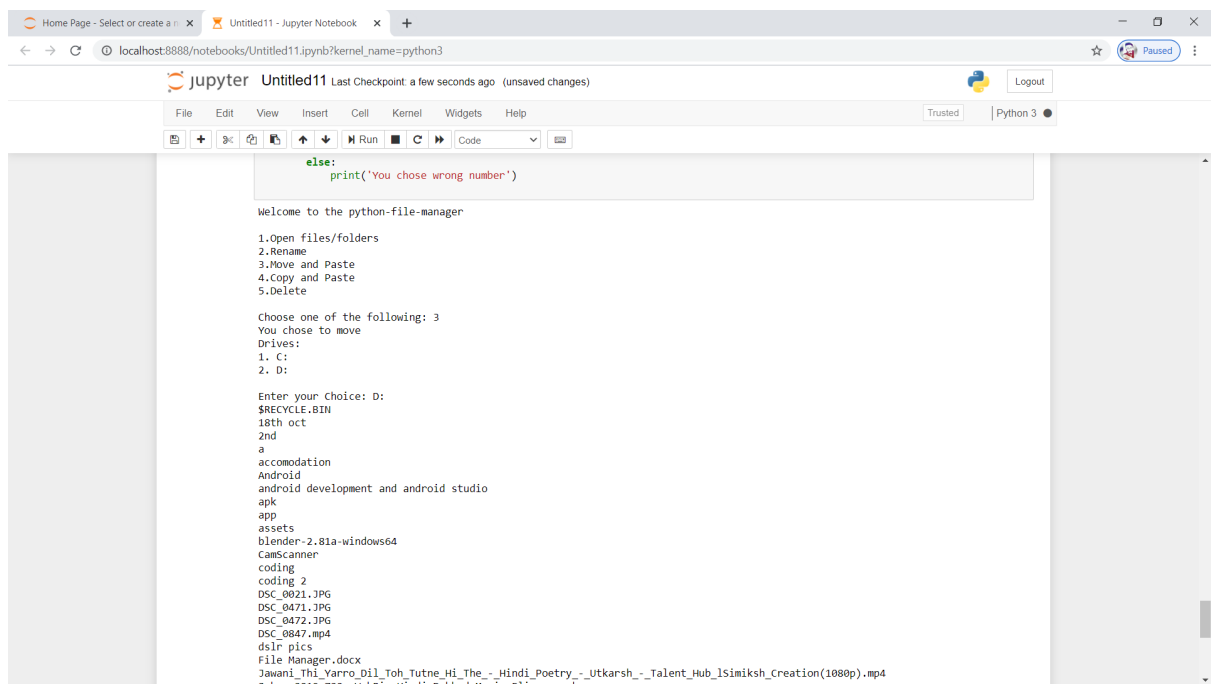
Yes or No: Yes

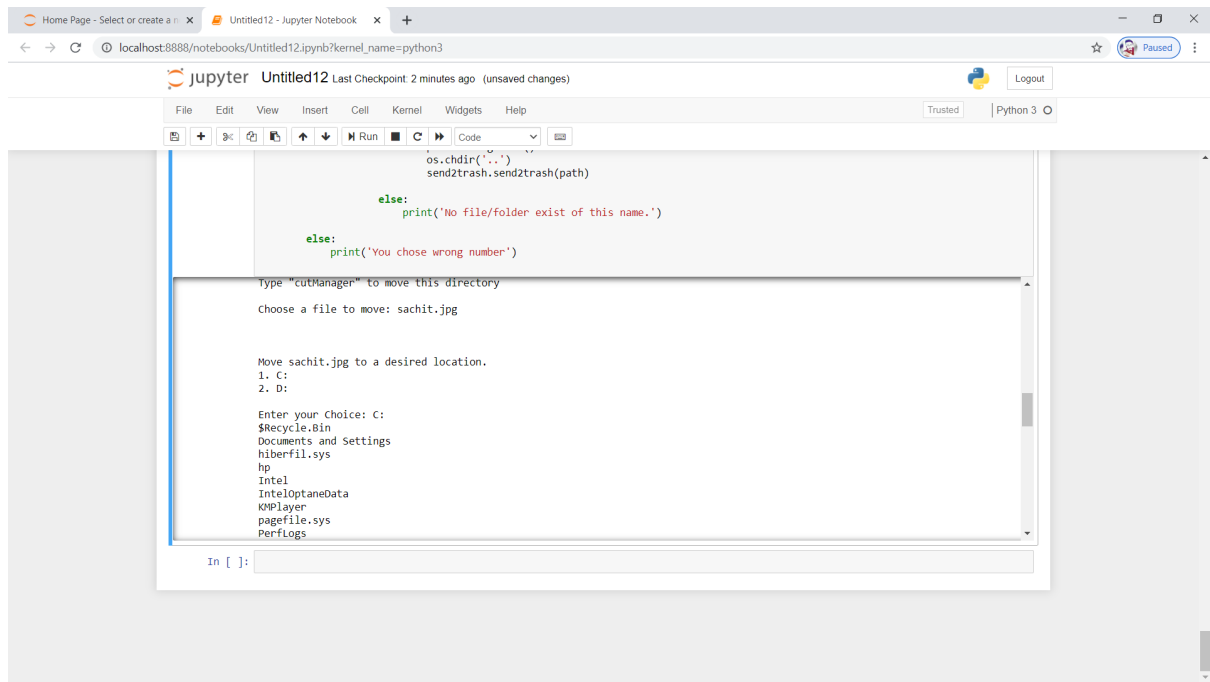
In []:

The file is transferred to recycle bin

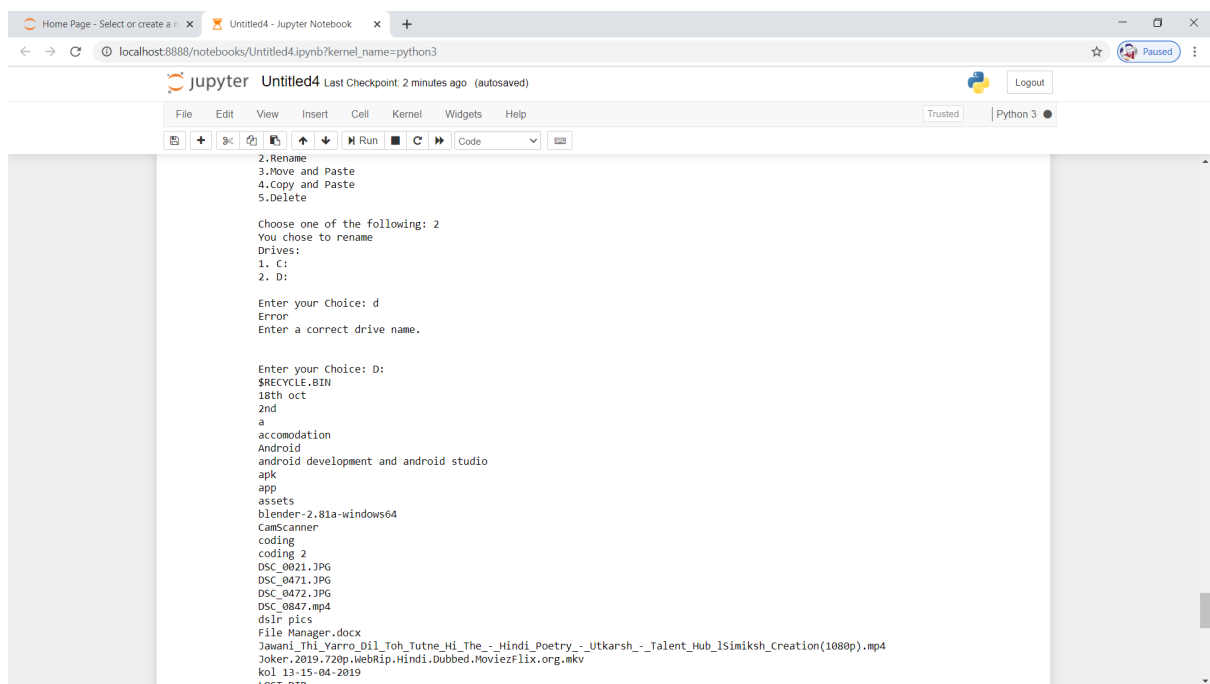


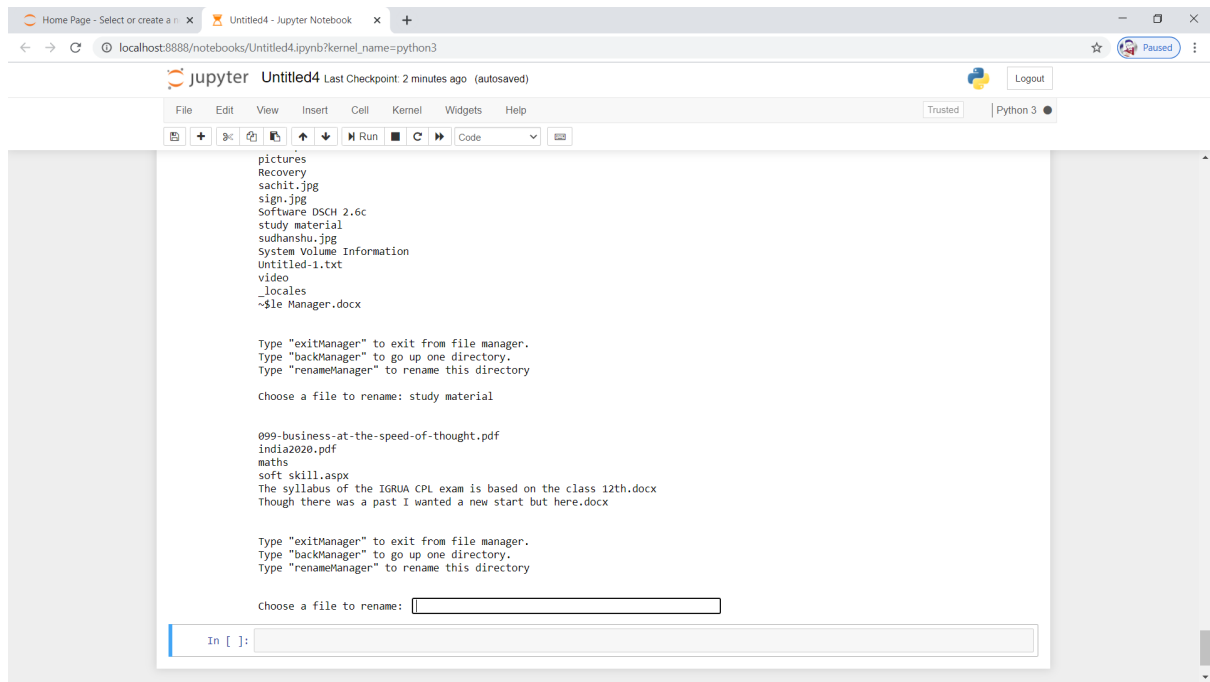
3.1.3) Move or copy files/folders to another location





3.1.4) Rename the file





3.2) source code

```
import sys
import os
import shutil
import send2trash

print('Welcome to the python-file-manager\n')

# Stores every drive connected on PC in a list.
drives = [chr(x) + ':' for x in range(65, 90) if os.path.exists(chr(x) + ':')]

# Lists each folder and file present in the current working directory
def listDirectories():
    listdir = os.listdir(os.getcwd())
    for x in listdir:
        print(x)

while True:
    print("1.Open files/folders \n2.Rename \n3.Move and Paste \n4.Copy and Paste \n5.Delete\n")
    result = input("Choose one of the following: ")

    if result == '1':
        # Home Screen
        print("\nQuick Access:\n1. Documents\n2. Videos\n3. Pictures\n4. Downloads\n")

        print('Drives: ')
        for x in range(len(drives)):
            print(str(5 + x) + '. ' + drives[x])

        while True:
            inp = input("\nEnter your Choice: ")
```

```

if inp == '1':
    path = 'C:\\Users\\$USERNAME\\Documents'
    os.chdir(os.path.expandvars(path))
    break

elif inp == '2':
    path = 'C:\\Users\\$USERNAME\\Videos'
    os.chdir(os.path.expandvars(path))
    break

elif inp == '3':
    path = 'C:\\Users\\$USERNAME\\Pictures'
    os.chdir(os.path.expandvars(path))
    break

elif inp == '4':
    path = 'C:\\Users\\$USERNAME\\Downloads'
    os.chdir(os.path.expandvars(path))
    break

elif inp in drives:
    os.chdir(inp + '\\')
    break

else:
    print('Error\nEnter a correct input / drive name.\n')

while True:

    listDirectories()

    print("\n\nType \"exitManager\" to exit from file manager.")
    print('Type \"backManager\" to go up one directory.')
    res = input("\nChoose a file/folder: ")
    print("\n")

    if res in os.listdir(os.getcwd()):
        if os.path.isfile(res):
            os.system('"" + res + ""')
        else:
            os.chdir(res)

    elif res == 'exitManager':
        # Exit command to exit from loop
        sys.exit(0)

    elif res == 'backManager':
        # Back command to go up one directory
        os.chdir('..')

    else:
        print('No file/folder exist of this name.')

if result == '2':
    print("You chose to rename")
    print('Drives: ')
    for x in range(len(drives)):
        print(str(1 + x) + '. ' + drives[x])

while True:
    inp = input("\nEnter your Choice: ")

    if inp in drives:
        os.chdir(inp + '\\')
        break
    else:
        print('Error\nEnter a correct drive name.\n')

while True:

    listDirectories()

```

```

print("\n\nType "exitManager" to exit from file manager.')
print('Type "backManager" to go up one directory.')
print('Type "renameManager" to rename this directory')

res = input("\nChoose a file to rename: ")
print("\n")

if res in os.listdir(os.getcwd()):
    if os.path.isfile(res):

        new_name = input("Enter a new name: ")
        ogDir = res
        newDir = os.getcwd() + '\\' + new_name
        shutil.move(ogDir, newDir)
    else:
        os.chdir(res)

elif res == 'exitManager': # Exit command to exit from loop
    sys.exit(0)

elif res == 'backManager': # Back command to go up one directory
    os.chdir('..')

elif res == 'renameManager': # Rename command to delete one directory

    new_name = input("Enter a new name: ")
    ogDir = os.getcwd()
    os.chdir('..')
    newDir = os.getcwd() + '\\' + new_name
    shutil.move(ogDir, newDir)

else:
    print('No file/folder exist of this name.')

if result == '3':
    print("You chose to move")
    print('Drives: ')
    for x in range(len(drives)):
        print(str(1 + x) + '. ' + drives[x])

while True:
    inp = input("\nEnter your Choice: ")

    if inp in drives:
        os.chdir(inp + '\\')
        break
    else:
        print('Error\nEnter a correct drive name.\n')

while True:

    listDirectories()

    print("\n\nType "exitManager" to exit from file manager.')
    print('Type "backManager" to go up one directory.')
    print('Type "cutManager" to move this directory')

    res = input("\nChoose a file to move: ")
    print("\n")

    if res in os.listdir(os.getcwd()):

        if os.path.isfile(res):
            og_path = os.getcwd() + "\\" + res
            print("\nMove " + res + " to a desired location.")

            while True:
                for x in range(len(drives)):
                    print(str(1 + x) + '. ' + drives[x])

                inp2 = input("\nEnter your Choice: ")

```



```

        if inp2 in drives:
            os.chdir(inp2 + '\\')
            break
        else:
            print('Error\nEnter a correct drive name.\n')

while True:
    listDirectories()

    print('Type "pasteManager" to paste this file in current directory')

    res2 = input('\nChoose a file to move: ')
    print('\n')

    if res2 in os.listdir(os.getcwd()):
        if os.path.isfile(res):
            print("You can't choose a file.\nPlease choose a folder.")
        else:
            os.chdir(res2)

    elif res2 == 'pasteManager':
        shutil.move(og_path, os.getcwd())
        break

    else:
        os.chdir(res)

elif res == 'exitManager':                # Exit command to exit from loop
    sys.exit(0)

elif res == 'backManager':                # Back command to go up one directory
    os.chdir('.')

elif res == 'cutManager':
    og_path = os.getcwd()

    print("Moving the current directory")
    while True:
        for x in range(len(drives)):
            print(str(1 + x) + '. ' + drives[x])

        inp2 = input("\nEnter your Choice: ")

        if inp2 in drives:
            os.chdir(inp2 + '\\')
            break
        else:
            print('Error\nEnter a correct drive name.\n')

    while True:
        listDirectories()

        print('\nType "pasteManager" to paste this folder in current directory')

        res2 = input('\nChoose a folder to open: ')
        print('\n')

        if res2 in os.listdir(os.getcwd()):
            if os.path.isfile(res):
                print("You can't choose a file.\nPlease choose a folder.")
            else:
                os.chdir(res2)

        elif res2 == 'pasteManager':
            shutil.move(og_path, os.getcwd())
            break

    else:
        print('No file/folder exist of this name.')

```

```

if result == '4':
    print("You chose to copy")
    print('Drives: ')
    for x in range(len(drives)):
        print(str(1 + x) + '. ' + drives[x])

while True:
    inp = input("\nEnter your Choice: ")

    if inp in drives:
        os.chdir(inp + '\\')
        break
    else:
        print('Error\nEnter a correct drive name.\n')

while True:
    listDirectories()

    print("\n\nType \"exitManager\" to exit from file manager.")
    print('Type \"backManager\" to go up one directory.')
    print('Type \"copyManager\" to copy this directory')

    res = input('\nChoose a file to copy: ')
    print('\n')

    if res in os.listdir(os.getcwd()):
        if os.path.isfile(res):
            og_path = os.getcwd() + "\\\" + res
            print("Move " + res + " to a desired location.")

            while True:
                for x in range(len(drives)):
                    print(str(1 + x) + '. ' + drives[x])

                inp2 = input("\nEnter your Choice: ")

                if inp2 in drives:
                    os.chdir(inp2 + '\\')
                    break
                else:
                    print('Error\nEnter a correct drive name.\n')

            while True:
                listDirectories()

                print('Type \"pasteManager\" to copy this file in current directory')

                res2 = input('\nChoose a file to move: ')
                print('\n')

                if res2 in os.listdir(os.getcwd()):
                    if os.path.isfile(res):
                        print("You can't choose a file.\nPlease choose a folder.")
                    else:
                        os.chdir(res2)

                elif res2 == 'pasteManager':
                    shutil.copy(og_path, os.getcwd())
                    break

            else:
                os.chdir(res)

        elif res == 'exitManager': # Exit command to exit from loop
            sys.exit(0)

        elif res == 'backManager': # Back command to go up one directory

```

```

os.chdir('..')

elif res == 'copyManager':
    og_path = os.getcwd()

    print("Copying the current directory")
    while True:
        for x in range(len(drives)):
            print(str(1 + x) + '. ' + drives[x])

        inp2 = input("\nEnter your Choice: ")

        if inp2 in drives:
            os.chdir(inp2 + '\\')
            break
        else:
            print('Error\nEnter a correct drive name.\n')

    while True:
        listDirectories()

        print("\nType \"pasteManager\" to copy this file in current directory')

        res2 = input("\nChoose a folder to open: ")
        print('\n')

        if res2 in os.listdir(os.getcwd()):
            if os.path.isfile(res):
                print("You can't choose a file.\nPlease choose a folder.")
            else:
                os.chdir(res2)

        elif res2 == 'pasteManager':
            print(og_path)
            folder_name = og_path.split('\\')[-1]
            folder_directory = os.getcwd() + '\\ ' + folder_name
            shutil.copytree(og_path, folder_directory)
            break

    else:
        print('No file/folder exist of this name.')

if result == '5':
    while True:

        # Options to delete files/folders to permanently or otherwise
        print("\n1. Permanently \n2. Recycle Bin')
        query = input('Would you like to permanently delete or send to Recycle Bin?: ')

        if query == '1':
            print('You chose to permanently delete files/folders.\n')
            print('Drives: ')
            for x in range(len(drives)):
                print(str(1 + x) + '. ' + drives[x])

            while True:
                inp = input("\nEnter your Choice: ")

                if inp in drives:
                    os.chdir(inp + '\\')
                    break
                else:
                    print('Error\nEnter a correct drive name.\n')

            while True:

                listDirectories()

                print("\n\nType \"exitManager\" to exit from file manager.')
                print('Type \"backManager\" to go up one directory.')
                print('Type \"deleteManager\" to permanently delete this directory')

```

```

res = input('\nChoose a file to delete: ')
print('\n')

if res in os.listdir(os.getcwd()):
    if os.path.isfile(res):

        # Warning to prevent unnecessary deletion
        print('Are you sure you want to permanently delete this file? (YES/NO)')
        ans = input('Yes or No: ')
        if ans.lower() == 'yes' or 'y':
            os.unlink(res)
        else:
            os.chdir(res)

    elif res == 'exitManager':          # Exit command to exit from loop
        sys.exit(0)

    elif res == 'backManager':          # Back command to go up one directory
        os.chdir('..')

    elif res == 'deleteManager':        # Delete command to delete one directory

        # Warning to prevent unnecessary deletion
        print('Are you sure you want to permanently delete this folder? (YES/NO)')
        ans = input('Yes or No: ')

        if ans.lower() == 'yes' or 'y':
            path = os.getcwd()
            os.chdir('..')
            shutil.rmtree(path)

        else:
            print('No file/folder exist of this name.')

elif query == '2':
    print('You chose to temporarily delete files/folders.')
    print('Drives: ')
    for x in range(len(drives)):
        print(str(1 + x) + ' . ' + drives[x])

while True:
    inp = input("\nEnter your Choice: ")

    if inp in drives:
        os.chdir(inp + '\\')
        break
    else:
        print('Error\nEnter a correct drive name.\n')

while True:

    listDirectories()

    print('\n\nType "exitManager" to exit from file manager.')
    print('Type "backManager" to go up one directory.')
    print('Type "deleteManager" to send this directory to recycle bin')

    res = input('\nChoose a file to delete: ')
    print('\n')

    if res in os.listdir(os.getcwd()):
        if os.path.isfile(res):

            # Warning to prevent unnecessary deletion
            print('Are you sure you want to send this folder to recycle bin? (YES/NO)')
            ans = input('Yes or No: ')
            if ans.lower() == 'yes' or 'y':
                send2trash.send2trash(res)
            else:
                os.chdir(res)

```

```
elif res == 'exitManager': # Exit command to exit from loop
    sys.exit(0)

elif res == 'backManager': # Back command to go up one directory
    os.chdir('..')

elif res == 'deleteManager': # Delete command to delete one directory

    # Warning to prevent unnecessary deletion
    print('Are you sure you want to send this folder to recycle bin? (YES/NO)')
    ans = input('Yes or No: ')

    if ans.lower() == 'yes' or 'y':
        path = os.getcwd()
        os.chdir('..')
        send2trash.send2trash(path)

    else:
        print('No file/folder exist of this name.')

else:
    print('You chose wrong number')
```