Challenge – 4

Problem Statement:

Develop a Business Management System capable of handling assignments and projects for three clients, namely Neeraj, Abhishek, and Rahul. The system should provide functionalities to log assignments/projects and retrieve them based on client input.

Key Requirements:

1. **Logging Functionality:**
   - The system should allow users to log assignments or projects for each client.
   - Users should be prompted to select the client (Neeraj, Abhishek, or Rahul) and specify whether it's an assignment or a project.
   - Upon selection, users should input the details of the assignment or project, which should be timestamped and stored in corresponding files.
2. **Retrieval Functionality:**
   - Users should have the ability to retrieve assignments or projects for a specific client.
   - The system should prompt users to select the client and specify whether they want to retrieve assignments or projects.
   - Upon selection, the system should display the stored assignments or projects for the chosen client.
3. **User Interaction:**
   - The system should provide a user-friendly interface, guiding users through the logging and retrieval processes.
   - Users should be informed of successful logging or retrieval operations.
4. **Error Handling:**
   - The system should handle invalid inputs gracefully, prompting users to enter valid inputs when necessary.
   - Errors such as selecting an invalid client or input option should be handled appropriately with clear error messages.

Assumptions:

- Each client has separate files for storing assignments and projects.
- Timestamps are appended to each entry to maintain a record of when the assignments/projects were logged.
- The system operates in a command-line interface without graphical user interface (GUI) elements.
- Input/output operations are conducted through standard input (console) and output (console).

Solution:

```python
# Business Management System
# 3 clients - Neeraj, Abhishek and Rahul

def getdate():
    import datetime
    return datetime.datetime.now()

# Total 6 files
# write a function that when executed takes as input
client name
# One more function to retrieve Assignment or Project
for any client

import datetime

def gettime():
    return datetime.datetime.now()

def take(k):
    if k == 1:
        c = int(input("enter 1 for Assignment and 2 for
Project : "))
        if (c == 1):
```

```python
            value = input("type here\n")
            with open("user-assign.txt", "a") as op:
                op.write(str([str(gettime())]) + ": " +
value + "\n")
            print("successfully written")
        elif (c == 2):
            value = input("type here\n")
            with open("user-proj.txt", "a") as op:
                op.write(str([str(gettime())]) + ": " +
value + "\n")
            print("successfully written")
    elif (k == 2):
        c = int(input("enter 1 for Assignment and 2 for
Project"))
        if (c == 1):
            value = input("type here\n")
            with open("emp-assign.txt", "a") as op:
                op.write(str([str(gettime())]) + ": " +
value + "\n")
            print("successfully written")
        elif (c == 2):
            value = input("type here\n")
            with open("emp-proj.txt", "a") as op:
                op.write(str([str(gettime())]) + ": " +
value + "\n")
            print("successfully written")
    elif (k == 3):
        c = int(input("enter 1 for Assignment and 2 for
Project"))
        if (c == 1):
            value = input("type here\n")
            with open("cust-assign.txt", "a") as op:
                op.write(str([str(gettime())]) + ": " +
value + "\n")
            print("successfully written")
        elif (c == 2):
            value = input("type here\n")
```

```python
            with open("cust-proj.txt", "a") as op:
                op.write(str([str(gettime())]) + ": " +
value + "\n")
            print("successfully written")
    else:
        print("plz enter valid input
(1(Neeraj),2(Abhishek),3(Rahul)")


def retrieve(k):
    if k == 1:
        c = int(input("enter 1 for Assignment and 2 for
Project"))
        if (c == 1):
            with open("user-assign.txt") as op:
                for i in op:
                    print(i, end="")
        elif (c == 2):
            with open("user-proj.txt") as op:
                for i in op:
                    print(i, end="")
    elif (k == 2):
        c = int(input("enter 1 for Assignment and 2 for
Project"))
        if (c == 1):
            with open("emp-assign.txt") as op:
                for i in op:
                    print(i, end="")
        elif (c == 2):
            with open("emp-proj.txt") as op:
                for i in op:
                    print(i, end="")
    elif (k == 3):
        c = int(input("enter 1 for Assignment and 2 for
Project"))
        if (c == 1):
            with open("cust-assign.txt") as op:
```

```python
                for i in op:
                    print(i, end="")
        elif (c == 2):
            with open("cust-proj.txt") as op:
                for i in op:
                    print(i, end="")
    else:
        print("plz enter valid input
(Neeraj,Abhishek,Rahul)")


print("Business management system: ")
a = int(input("Press 1 for log the value and 2 for
retrieve "))

if a == 1:
    b = int(input("Press 1 for Neeraj 2 for Abhishek 3
for Rahul "))
    take(b)
else:
    b = int(input("Press 1 for Neeraj 2 for Abhishek 3
for Rahul "))
    retrieve(b)
```

Output:

```
C:\Users\test\PycharmProjects\project_1\.venv\Scripts\python.exe "C:\Users\test\PycharmProjects\project_1\Challenge
****************** Business management system ****************************
Press 1 for log the value and 2 for retrieve 1
Press 1 for Neeraj 2 for Abhishek 3 for Rahul 1
enter 1 for Assignment and 2 for Project : 1
type here
hello world
successfully written

Process finished with exit code 0
```

```
C:\Users\test\PycharmProjects\project_1\.venv\Scripts\python.exe "C:\Users\test\PycharmProjects\project_1\Challenge
****************** Business management system ****************************
Press 1 for log the value and 2 for retrieve 2
Press 1 for Neeraj 2 for Abhishek 3 for Rahul 1
enter 1 for Assignment and 2 for Project 1
['2024-03-22 12:23:01.266293']: hello world
```