Task 6 Implement various text file operation

Aim:- To write a python program implement various text file operation

Program 6-1:- you need to write the sentence "Error objects are thrown when running time error occur the error object can also be used as a base object for users-defined exceptions" into a text file named log.txt implement a function that performs this task

Algorithm:-

1) Write a a file
   - Define WriteFile (File name) function:-
   - open a file named "log.txt" in write mode.
   - write the following txt to the file:
   - "Error objects are thrown when runtimes errors occur. the error object can also be used as a base object for user defined exceptions
   - close the file
2) Read from a file:
   - Define readFile (filename) function:
     - open the file specified by file name in read mode using a with statement
     - Read the entire content of the file
     - print the content

output :- Error objects are thrown when run time errors occur. the error object can also be used as a base objects for user-defined exceptions

3 Execute the program

- Call Write File ("Write") to write the predefined text to "log.txt"
- Call readfile ("text") to attempt to read from a file named "text" and print its content

Program 6.1

```
def Write File (File name):
    f = open ("log.txt", "w")
    f.write ("Error objects are thrown when
    run time errors occurs the error object
    can also be used as a base objects
    for users - defined exceptions).f.close()
def readfile (file name):
    With open (file name, "r") as file:
    Content = file.read()
    Print (content)
Write File ("write")
read file ("text")
```

6.2 Program

You have a text file log.txt containing logs of a system. Write a function that counts the number of lines containing the word "ERROR"

Algorithm:-

1) initialize Error counter:-
   - Define the function count_error_line (file_name);
   - initialize error_count to 0
2) open and read file:
   - open the file specified by file name in read mode using a with statement
3) Check each line for "ERROR":-
   loop through each line in the file:
   - if the line contains the word "ERROR" increment error_count by 1
4) Return Error count:-
   - After reading all the lines, return the value of error_count
5) Execute the Program
   - Call count_error_lines("log.txt") to count the value of "error" in the file "log.txt"
   - print the result with the message: "Number of lines with 'ERROR': {error_lines}"

OUTPUT :-

Number of lines with 'Error' is 2

Program 6.2

```
def count_error_lines(file name):
    error_count=0
    With open(file name, "r") as file:
    for line in file:
        if "ERROR" in line
        error_count += 1
        return error_count
    error_lines = count_error_lines
                        ("log.txt")
    print (f"Number of lines with ERROR
    : {error_lines}")
```

log.txt

"Error objects are thrown when run time error occur
The error object can also be used as a base object for user defined exceptions".

Program :- 6.3

You need to write the report containing the details (Name, departments) of the employee in list write a python function that write this report to a file named employee_report.txt

Algorithm :- 1) Create employee data:

- Define the function write_employee_report(filename):
- create a list employee containing dictionaries, each with "name" and "department" keys for individual employee

2) open file for writing

- open the file specified by file name in write mode using a with statement

3) write employee data to file

- loop through each employee in the employees list
- for each employee, format a string as "Name: {employee['name']}, Department: {employee['department']}
- write the formatted string to the file, followed by a newline character (\n)

4) Execute the program

- Call write_employee_report ("employee_report.txt") to write the employee data to the file "employee_report.txt")

Program 6.3

```
def write_employee_report(filename):
    employees = [
    {"name": "Alice", "department": "HR"},
    {"name": "Bob", "department": "Engineering"},
    {"name": "Charlie", "department": "Finance"},
    ]
    with open(file name, "w") as file:
        for employee in employees:
            line = f"Name: {employee['name']},
            Department: {employee['department']}
            \n"
```

Output :-

Name :- Alice, Department : HR

Name :- Bob, Department :- Engneering

Name :- Charlie Department :- Finan

file.write(line)

Example usage:

write_employee_report("employee_report.txt")

VEL TECH	
EX No.	6
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	—
TOTAL (20)	15
SIGN WITH DATE	10/9.

Result:- Thus the Python program implement various text file operations was successfully executed and the output was verified.