Implement Various text file Operation

AIM:-

To write a python program Implement various text file Opa.

a) You need to write the sentence "Error objects are thrown when runtime errors occur. The Error object can also be used as a base object for user-defined exceptions" into a text file named log.txt. Implement a function that performs this task.

ALGORITHM:-

1. Write to a File:-

Open a file named "log.txt" in write mode.
Write the following text to the file:
Close the file.

2. Read from a File:- Define readfile (filename) function:
Open the file Specified by filename in read mode using a with statement.
Read the entire content of the file
Print the content.

3. Execute the Program:
Call writefile ("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 :-

```
def writefile(filename):
    f=open("log.txt","w")
    f.write("Error objects are thrown when runtime errors
occur. The Error object can also be used as a base object
for user-defined exceptions")
    f.close()
def readfile(filename):
    with open(filename,"r") as file:
    content =file.read()
    Print(content)
writefile("write")("log.txt")
readfile("text") ("log.txt")
```

Output:

Error object are thrown when runtime errors occurs. the Error object can also be used as a base object for user-defined exception

b) You have a text file.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 Counter_error_line;
   Initialize error_count to 0
2. Open and Read File: Open the file specified by filename 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 number of lines with the word "ERROR" in the file "log.txt".
Print the result with the message: "Number of lines with 'ERROR': {error_lines}".

PROGRAM:-
```
def count_error_lines(filename):
    error_count = 0
    with open(filename, "r") as file:
        for line in file:
            if "ERROR" in line:
                error_count += 1
        return error_count
error_line = count_error_lines("log.txt")
Printf("Number of lines with "ERROR': error_lines)
```

Output :

Number of lines with 'ERROR': 0

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

ALGORITHM:-

1. Create Employee Data:

Define the function write_employee_report(filename):

- Create a list employees containing dictionaries, each with "name" and "department" keys for individual employees.

2. Open File for writing:

- Open the file specified by filename in write mode using a with

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 (\n).

Program:- 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"
            file.write(line)
```

VEL TECH - CSE	
EX NO.	6
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	
TOTAL (20)	
SIGN WITH DATE	

RESULT:-

Thus, the python program Implement ~~various text file~~ Operations was successfully executed ~~and the output that~~ verified.

6-11-24

Output:

Name : Alice , Department : HR

Name : Bob , Department : Engineering

Name : Charlie , Department : Finance.