

## Task-6 :- Implement various text file operation:-

Aim :- To Write a python program to implement various text file operations

### Problem.-6.1:-

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:-

- Define writeFile(filename) function;
- Open a file named "log.txt" in write mode
- Write the following text to the file.

"Error objects are thrown when runtime 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 a 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 with filename("writer") to write the predefined text to "log.txt".

### Program - 6.1 :-

```
def writefile(filename)
```

```
f = open("log.txt", "w")
```

*f.write("Error objects are thrown when runtime errors occurs. The Error object can also be used as base object for user-defined exceptions").*

```
f.close()
```

```
def readfile(filename):
```

```
with open(filename, "r") as file:
```

```
content = file.read()
```

```
print(content)
```

```
writefile("write")
```

```
readfile("text").
```

### Problem - 6.2

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 counter\_error\_lines(filename):

⇒ 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:-

Output - 6.1:-

Error objects are thrown when runtime error occurs. The Error object can also be used as a base object for defined exceptions.

#### 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 - 6.2 :-

```
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\_lines = count\_error\_lines ("log.txt")

printf ("Number of lines with 'ERROR': {error\_lines}")

log.txt

"Error objects are thrown when runtime Error occurs.

Output - 6.2 ! -

Number of lines with 'ERROR' is 2

Output :- 6.3

Name : Alice, Department : HR

Name : Bob, Department : Engineering

Name : Charlie, Department : Finance

O/P

Program :- 6.3

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

Result:- Thus, the python program implement various txt file operations was successfully executed and the output was verified.

VEL TECH	
EX No.	6
PERFORMANCE (5)	+
RESULT AND ANALYSIS (5)	-
VIVA VOCE (5)	-
RECORD (5)	-
TOTAL (20)	15
WITH DATE	01/09/2019