

Ex No.06 14.03.25	Usage of Files operations in Python	Reg. No: URK24CS9068
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Q7. Write a Python program to create a file where all letters of the English alphabet are listed by the specified number of letters on each line based on the input ‘n’.

Aim: To write a Python program that creates a file and writes the English alphabet into it with a specified number of letters per line.

Objective: To practice file handling and string slicing techniques by distributing characters into formatted lines.

Algorithm:

- Step 1: Start
- Step 2: Import the string module to access the English alphabet
- Step 3: Accept input n for number of letters per line
- Step 4: Slice the alphabet string in chunks of n characters
- Step 5: Open a file in write mode
- Step 6: Write each chunk on a new line
- Step 7: Close the file
- Step 8: End

Program:

```
print("D. Brian Gabriel")
print("URK24CS9068")
print("-----")
alpha="ABCDEFGHIJKLMNOPQRSTUVWXYZ"
fp=open("text", 'w')
n=int(input("Enter a size:"))
for i in range(0,len(alpha),n):
    fp.write(alpha[i:i+n]+\n")
print("Successfully done")
fp.close()
```

Text File:

```
1 ABCDE
2 FGHIJ
3 KLMNO
4 PQRST
5 UVWXY
6 Z
7
```

Output:

```
D. Brian Gabriel  
URK24CS9068  
-----  
Enter a size:5  
Successfully done
```

Result: The program successfully writes the English alphabet into a file with the specified number of letters per line.

Q8. Write a Python program to read the first n lines of a file.

Aim: To write a Python program that reads the first n lines from a text file.

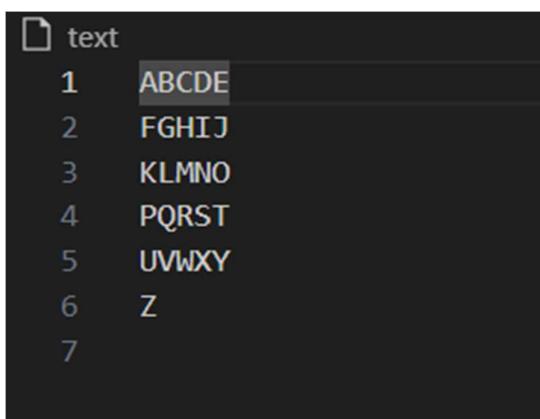
Objective: To understand file reading and line-by-line access using Python.

Algorithm:

- Step 1: Start
- Step 2: Accept input n (number of lines to read)
- Step 3: Open the file in read mode
- Step 4: Loop through the file using readline() or a loop with enumerate()
- Step 5: Print only the first n lines
- Step 6: Close the file
- Step 7: End

Program:

```
print("D. Brian Gabriel")
print("URK24CS9068")
print("-----")
file = open('text','r')
n=int(input("Enter no. of lines to be read:"))
for i in range(0,n):
    s=file.readline()
    print(s)
file.close()
```

Text File:

The screenshot shows a text editor window with a single file named "text". The file contains the following content:

```
1 ABCDE
2 FGHIJ
3 KLMNO
4 PQRST
5 UVWXYZ
6 Z
7
```

Output:

```
D. Brian Gabriel
URK24CS9068
-----
Enter no. of lines to be read:3
ABCDE

FGHIJ

KLMNO
```

Result: The program successfully reads and prints the first n lines of the file as specified by the user.

Q9. Write a Python program to count the frequency of words in a file.

Aim: To write a Python program that reads a file and counts the frequency of each word.

Objective: To practice file handling and dictionary operations by computing word frequencies from text

Algorithm:

- Step 1: Start
- Step 2: Open the file in read mode
- Step 3: Read the entire content and split it into words
- Step 4: Use a dictionary to count word occurrences
- Step 5: Print the word and its frequency
- Step 6: Close the file
- Step 7: End

Program:

```

print("D. Brian Gabriel")
print("URK24CS9068")
print("-----")
file =open("text", 'r')
text = file.read().lower()
words=text.split()
count={}
for word in words:
    if word in count:
        count[word]=count[word]+1
    else:
        count[word]=1
print(count)

```

Text File:

```

text
1 Write a Python function that accepts a file and performs the following operation,
2 calculate the number of upper-case letters and lower-case letters
3 from the entire content of the file.
4 Search a word in a particular line
5 |
6

```

Output:

```
D. Brian Gabriel
URK24CS9068
-----
{'write': 1, 'a': 4, 'python': 1, 'function': 1, 'that': 1, 'accepts': 1, 'file': 1, 'and': 2, 'performs': 1, 'the': 4, 'following': 1, 'operation': 1, 'calculate': 1, 'number': 1, 'of': 2, 'upper-case': 1, 'letters': 2, 'lower-case': 1, 'from': 1, 'entire': 1, 'content': 1, 'file.': 1, 'search': 1, 'word': 1, 'in': 1,
'particular': 1, 'line': 1}
```

Result: The program successfully reads the file and displays the frequency of each word.