PYTHON LAB ASSIGNMENT-7 DATE-26/11/24

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1. Write a Python program to create a file where all letters of English alphabet are listed by specified number of letters on each line.

alphabet = 'abcdefghijklmnopqrstuvwxyz'

file = open('alphabet.txt', 'w')

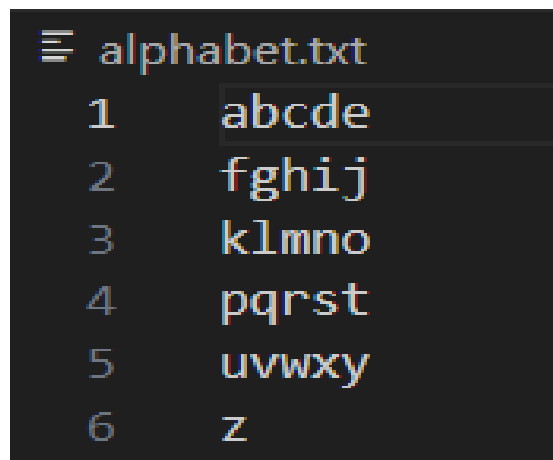for i in range(0, len(alphabet), 5):

   file.write(alphabet[i:i+5] + '\n')

file.close()

print("File 'alphabet.txt' has been created.")

OUTPUT

```
≡ alphabet.txt
1      abcde
2      fghij
3      klmno
4      pqrst
5      uvwxy
6      z
```

2. Write a Python program to generate 26 text files named A.txt, B.txt, and so on up to Z.txt.

```python
for i in range(65, 91):
    letter = chr(i)
    filename = f"{letter}.txt"
    file = open(filename, 'w')
    file.write(f"This is the file named {filename}\n")
    file.close()

print("26 text files (A.txt to Z.txt) have been created.")
```

OUTPUT

```
26 text files (A.txt to Z.txt) have been created.
```

3. Write a Python program to extract characters from various text files and puts them into a list.

```python
def extract_characters_from_files(filenames):
    characters = []

    for filename in filenames:
        file = open(filename, 'r')
        for line in file:
```

```python
        for char in line.strip():
            characters.append(char)
    file.close()


    return characters


file_list = ['A.txt', 'B.txt', 'C.txt']
result = extract_characters_from_files(file_list)


print("Extracted characters:", result)
```

OUTPUT

```
Extracted characters: ['H', 'e', 'l', 'l', 'o', 'W', 'o', 'r', 'l', 'd', 'b', 'y', 'e']
```

4. Write a Python program that takes a text file as input and returns the number of words of a given text file. Note: Some words can be separated by a comma with no space.

```python
file = open('D.txt', 'r')


content = file.read()


words = content.replace(',', ' ').split()


word_count = len(words)
```

file.close()

print("Number of words:", word_count)

OUTPUT

```
Number of words: 6
☰ D.txt
  1    This is the file named D.txt
```

5. Write a Python program to remove newline characters from a file.

```python
file = open('first.txt', 'r')

lines = file.readlines()

file.close()

file = open('input.txt', 'w')

for line in lines:
    file.write(line.strip())

file.close()
```

print("Newline characters removed from the file.")

OUTPUT

```
Newline characters removed from the file.
```

6. Write a Python program to assess if a file is closed or not.

file=open("first.txt","r")

print("is this file closed ?",file.closed)

file.close()

print("is this file closed now ?",file.closed)

OUTPUT

```
is this file closed ? False
is this file closed now ? True
```

7. Write a Python program to read a random line from a file

file=open("first.txt","r")

line=file.readlines()

file.close()

totllines=len(line)

index=totllines%3

```
print("raandom files from the file: ",line[index])
```

OUTPUT

```
raandom files from the file:  welcome
```

```
≡ first.txt
  1     hello
  2     welcome
  3     this is a new line.
  4     this is a new line.
  5     this is a new line.
  6     perth
  7     stop
```

8. Write a Python program to combine each line from first file with the corresponding line in second file

```
file1 = open('first.txt', 'r')

file2 = open('first2.txt', 'r')


lines1 = file1.readlines()

lines2 = file2.readlines()


file1.close()

file2.close()


for line1, line2 in zip(lines1, lines2):

    print(line1.strip() + " " + line2.strip())
```

OUTPUT

```
hello hello from
welcome rishi raman
```

9. Write a Python program to count the number of lines in a text file

file = open('first.txt', 'r')

lines = file.readlines()

file.close()

print("Number of lines in the file:", len(lines))

OUTPUT

```
Number of lines in the file: 7
```

10.Write a Python program to append text to a file and display the text.

file_name = "first.txt"

file = open(file_name, 'a')

file.write("This is some new text to append to the file.\n")

file.close()

file = open(file_name, 'r')

```
content = file.read()

file.close()


print("Current content of the file:")

print(content)
```

OUTPUT

```
Current content of the file:
hello
welcome
this is a new line.
this is a new line.
this is a new line.
perth
stop
This is some new text to append to the file.
```