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**Paper Number : 204**

**Subject : Python Programming Language**

**Assignment Number : 8**

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**M.C.A. 2nd Semester (2020-2021)**

**Paper 204: Python Programming Language**

**Practical Sheet - 8**

**Q.1. Write a Python program to create a text file of multiple lines. Display the following:**

- 1. Line number and number of words in each line.**
- 2. Display each line with the words in backward order.**
- 3. Display line numbers of the empty lines.**
- 4. Display all the lines that contain alphabets and digits both.**
- 5. Display all the lines that contain only alphabets.**

```
import re

file_name = input('Enter The file name: ')
file = input('Please enter the detail : ')
with open(file_name + '.txt', 'w') as f:
    while file:
        f.write(file + '\n')
        file = input('Please enter the detail: ')

ch = 1
while ch != 0:
    print("\n1. Line number and number of words in each line.")
    print('2. Display each line with the words in backward order.')
    print('3. Display line numbers of the empty lines.')
    print('4. Display all the lines that contain alphabets and digits both.')
    print('5. Display all the lines that contain only alphabets..')
    print('0. Exit')
    ch = int(input('Enter valid choice = '))

if ch == 0:
    break
```

```

elif ch == 1:
    file1 = open(file_name + '.txt', "r")
    word_count = 0
    i = 0
    str1 = ""
    print("Contents of file " + file_name + " are:")

    for line in file1:
        i += 1
        print(line, end="")
        words_in_line = len(line.split())
        str1 = str1 + "Words in Line No: " + str(i) + " are : " + str(words_in_line) + "\n"
        word_count += words_in_line

    print("\n\n" + str1)
    print("\n\nTotal Number of words in this file are = " + str(word_count))

    file1.close()

elif ch == 2:
    file1 = open(file_name + '.txt', "r")
    print("Contents of file " + file_name + " are:")
    for line in file1:
        print(line, end="")

    with open(file_name + '.txt', "r") as myfile:
        data = myfile.read()
        reversed_data = data[::-1]
        print(reversed_data)

    file1.close()

elif ch == 3:
    file1 = open(file_name + '.txt', "r")
    i = 0
    str1 = ""
    print("Contents of file " + file_name + " are:")

    for line in file1:
        i += 1
        print(line, end="")
        if len(line.strip()) == 0:
            str1 = str1 + "Line No: " + str(i) + " are empty\n"

    print("\n\n" + str1)
    file1.close()

```

```
elif ch == 4:
```

```
with open(file_name + '.txt', "r") as f:
    print("Contents of file " + file_name + " are:")
    res = []
    for line in f:
        temp = line.split()
        print(temp)
        match = re.search('[a-zA-Z0-9]*$', ".join(temp))
        if match:
            print(match.group())
            res.append(temp)
    print("Words with alphabets and numbers : " + str(res))
```

```
elif ch == 5:
```

```
with open(file_name + '.txt', "r") as f:
    print("Contents of file " + file_name + " are:")
    res = []
    for line in f:
        temp = line.split()
        match = re.search('[a-zA-Z]*$', ".join(temp))
        if match:
            res.append(' '.join(temp).strip())
```

```
#     print("Words with alphabets: ", ', '.join(res).strip())
```

```
else:
```

```
    print('Invalid choice')
```

**Q.2. Write a Python program to create two text files containing different words. Create a list containing words that exist in both the files.**

```
file_name1 = input('Enter The first file name: ')
file1 = input('Please enter the detail : ')
with open(file_name1 + '.txt', 'w') as f1:
    while file1:
        f1.write(file1 + '\n')
        file1 = input('Please enter the detail: ')

file_name2 = input('Enter The second file name: ')
file2 = input('Please enter the detail : ')
with open(file_name2 + '.txt', 'w') as f2:
    while file2:
        f2.write(file2 + '\n')
        file2 = input('Please enter the detail: ')

with open(file_name1 + '.txt', 'r') as file1:
    demofile1 = file1.readlines()

with open(file_name2 + '.txt', 'r') as file2:
    demofile2 = file2.readlines()

word1 = []
word2 = []
for line in demofile1:
    for word in line.split():
        word1.append(word.strip().lower().replace('\n', ''))

for line in demofile2:
    for word in line.split():
        word2.append(word.strip().lower().replace('\n', ''))

print("---- first file original data---")
print(word1)
print("---- second file original data---")
print(word2)

match_list = []
for i in word1:
    if i in word2:
        match_list.append(i)

print("---- list containing words that exist in both the files.---")
print(match_list)
```

**Q.3. Create a list of numbers. Then divide the list into 3 parts and reverse each part. Display all the parts.**

```
import math

lst = []

while True:
    Number = int(input("Enter a Number (for exit enter zero(0) : "))
    if Number == 0:
        break
    else:
        lst.append(Number)

e_list = []

n = math.ceil(len(lst) / 3)
num = 0

while num < len(lst):
    e_list.append(lst[num:num + n])
    num += n

print(lst)
for i in e_list:
    print("--original list--")
    print(i)
    print("--reversed list--")
    print(i[::-1])
```

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