Python Programming - 2301CS404

Lab - 9

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File I/O

01) WAP to read and display the contents of a text file. (also try to open the file in some other directory)

- in the form of a string

- line by line

- in the form of a list

In [12]:
```
fp = open("file1.txt","r")
print(fp.read())
print(fp.readline())
print(fp.readlines())
fp.close()
```

```
Jay mataji from Rudrarajsinh Jadeja

[]
```

02) WAP to create file named "new.txt" only if it doesn't exist.

In [46]:
```
fp = open("new.txt","r")
print(fp.read())
fp.close()
```

```
Khamma ghani this is Rudrarajsinh Jadeja
```

03) WAP to read first 5 lines from the text file.

In [54]:
```
fp = open("field.txt","r")
for i in range(5):
    print(fp.readline().strip())
fp.close()
```

```
Jadeja
jbdfkswf
fklkwnfls
lkndlgled
klndl
```

04) WAP to find the longest word(s) in a file

In [61]:
```
fp = open("field.txt","r")
x = max(fp.read().split(),key = len)
print(x)
```

```
Rudrarajsinh
```

05) WAP to count the no. of lines, words and characters in a given text file.

In [67]:
```
fp = open("field.txt","r")
print(len(fp.read()))
print(len(fp.read().split()))
```

```
45
0
```

06) WAP to copy the content of a file to the another file.

In [79]:
```
fp = open("field.txt","r")
x1=fp.read()
fp1 = open("field2.txt","w")
fp1.write(x1)
print(x1)
fp1.close()
```

```
Jadeja
Rudrarajsinh
fklkwnfls
lkndlgled
klndl
```

07) WAP to find the size of the text file.

In [81]:
```
import os
fp = open("field.txt","r")
```

```
file_size = os.path.getsize('field.txt')
print("File Size is :", file_size, "bytes")
```

```
File Size is : 45 bytes
```

08) WAP to create an UDF named frequency to count occurances of the specific word in a given text file.

In [2]:
```
def frequency(FileName, word):
    with open(FileName, "r") as fp:
        lines = fp.readlines()
        words = [w for line in lines for w in line.strip().split()]  # Flatten t
    print(f"Occurrence of '{word}' = {words.count(word)}")

FileName = input("Enter File Name: ")
word = input("Enter word: ")
frequency(FileName, word)
```

```
Occurrence of 'Jay' = 1
```

09) WAP to get the score of five subjects from the user, store them in a file. Fetch those marks and find the highest score.

In [92]:
```
fp = open("field.txt","w+")

for i in range(5):
    h1 = input("enter the 1 subject mark:-")
    fp.write(h1+" ")
fp.close()
fp = open("field.txt","r+")
# print(fp.read())
a=fp.read()
b=a.split()
print(a)
print(max(b))
```

```
1 2 3 4 5
5
```

10) WAP to write first 100 prime numbers to a file named primenumbers.txt

(Note: each number should be in new line)

In [1]:
```
def is_prime(n):
    if n < 2:
        return False
    for i in range(2, int(n**0.5) + 1):
        if n % i == 0:
            return False
    return True

def write_primes_to_file(filename, count):
    primes = []
    num = 2
    while len(primes) < count:
```

```
        if is_prime(num):
            primes.append(num)
        num += 1

    with open(filename, "w") as fp:
        fp.writelines([str(prime) + "\n" for prime in primes])

write_primes_to_file("primenumbers.txt", 100)
```

11) WAP to merge two files and write it in a new file.

In [85]:
```
fp = open("field.txt","r")
fp1 = open("field2.txt","r")
str1 = fp.read()
str1 = str1 + "\n" + fp1.read()
fp2 = open("field3.txt","w")
fp2.write(str1)
print(str1)
fp2.close()
```

```
Jadeja
Rudrarajsinh
fklkwnfls
lkndlgled
klndl
Jadeja
Rudrarajsinh
fklkwnfls
lkndlgled
klndl
```

12) WAP to replace word1 by word2 of a text file. Write the updated data to new file.

In [87]:
```
fp = open("field.txt","r")
x1=fp.read()
print(x1)
a=x1.replace("Rudrarajsinh","Jadeja")
fp1 =open("field2.txt","w")
fp1.write(a)
fp1.close()
```

```
Jadeja
Rudrarajsinh
fklkwnfls
lkndlgled
klndl
```

13) Demonstrate tell() and seek() for all the cases(seek from beginning-end-current position) taking a suitable example of your choice.

In [89]:
```
fp = open("field.txt","r")
print("Before reading pointer is at:", fp.tell())
fp.read(2)
print("After reading 2 characters pointer is at: ",fp.tell())
fp.read(3)
```

```
print("After reading 5 characters pointer is at: ",fp.tell())
fp.read()
print("after going to the end of the file, pointer is at:", fp.tell())
fp.close()

fp = open("field.txt","r")
print("Before reading pointer is at:", fp.seek(0,2))
fp.read(2)
print("After reading 2 characters pointer is at: ",fp.seek(0,2))
fp.read(3)
print("After reading 5 characters pointer is at: ",fp.seek(0,2))
fp.read()
print("after going to the end of the file, pointer is at:", fp.seek(0,2))
fp.close()
```

```
Before reading pointer is at: 0
After reading 2 characters pointer is at:  2
After reading 5 characters pointer is at:  5
after going to the end of the file, pointer is at: 45
Before reading pointer is at: 45
After reading 2 characters pointer is at:  45
After reading 5 characters pointer is at:  45
after going to the end of the file, pointer is at: 45
```