AKTU B.Tech Second Year

PYTHON PROGRAMMING

UNIT 4

Python file operations

LEC-4

Gateway Classes

Today's Target

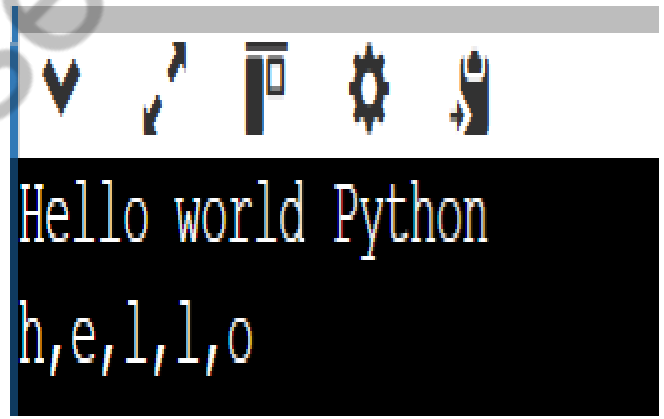
- **File program**
- **AKTU PYQs**

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Example:

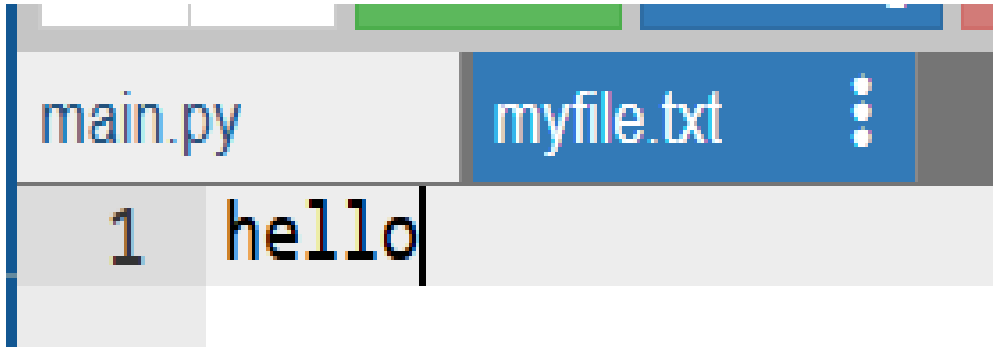
main.py

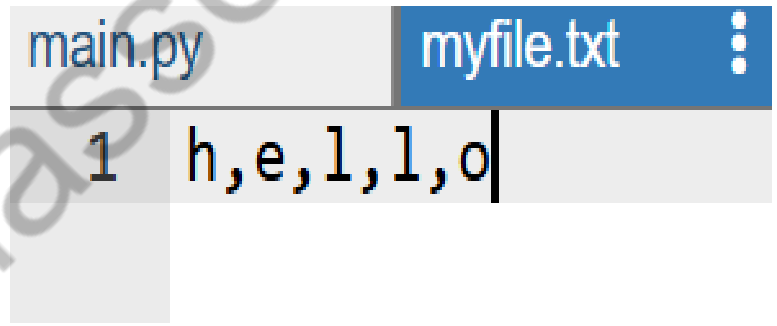
```
1  #example1
2  words = ["Hello", "world", "Python"]
3  result = " ".join(words)
4  print(result)
5  #example 2
6  k="hello"
7  result2 = ",".join(k)
8  print(result2)
```



Gateway classes

Construct a program to change the content of the fie by separating each character by comma





Gateway classes

main.py myfile.txt

```
1 def seprate_character_by_comma(file_name):
2     with open(file_name,'r') as file:
3         content=file.read()
4         seprated_content=','.join(content)
5     with open (file_name,'w') as file:
6         file.write(seprated_content)
7 file_name="myfile.txt"
8 seprate_character_by_comma(file_name)
```

Gateway classes

What will be the output:

main.py

```
1 def count(s):
2     for str in string.split():
3         s="&".join(str)
4         return s
5 print(count("python is fun to learn"))
6
```

input

```
Traceback (most recent call last):
  File "/home/main.py", line 5, in <module>
    print(count("python is fun to learn"))
  File "/home/main.py", line 2, in count
    for str in string.split():
NameError: name 'string' is not defined
```

```
1 def count(s):
2     for str in s.split():
3         s="&".join(str)
4         return s
5 print(count("python is fun to learn"))
6
```

```
p&y&t&h&o&n
```

classes

What will be the output:

main.py

```
1 def count(s):
2     for str in s.split():
3         s="&".join(str)
4     return s
5 print(count("python is fun to learn"))
6
```

input

```
l&e&a&r&n
```

main.py

```
1 def count(s):
2     for str in s.split():
3         s="&".join(str)
4         print(s)
5 print(count("python is fun to learn"))
6
```

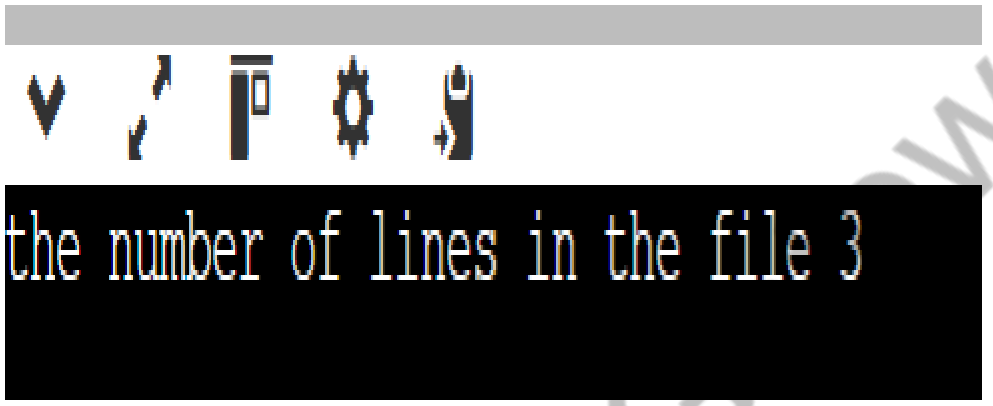
```
p&y&t&h&o&n
i&s
f&u&n
t&o
l&e&a&r&n
None
```

Gateway classes

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

main.py | test.txt

```
1 def count_lines(filename):
2     with open(filename,'r') as file:
3         lines=file.readlines()
4     return len(lines)
5 filename='test.txt'
6 num_lines=count_lines(filename)
7 print("the number of lines in the file",num_lines)
```



main.py | test.txt

```
1 hello
2 while
3 bye
```

Gateway classes

write a program to read a file ABC.TXT AND count the line word character in a file.

main.py ABC.TXT

```
1  def count_file_content(filename):
2      with open(filename,'r') as file:
3          lines=file.readlines()
4          line_count=len(lines)
5          word_count=0
6          char_count=0
7          for line in lines:
8              words=line.split()
9              word_count+=len(words)
10             char_count+=len(line)
11     print("line",line_count)
12     print("words",word_count)
13     print("character",char_count)
14 filename="ABC.TXT"
15 count_file_content(filename)
16
```

```
line 2
words 4
character 12
```

main.py ABC.TXT

```
1  h i break
2  jj
```

Gateway classes

write a program to read a file and capitalize first letter of every word in a file

main.py | ABC.TXT

```
1  def capitalize_words_in_file(filename):
2      with open(filename, 'r') as file:
3          lines = file.readlines()
4
5      with open(filename, 'w') as file:
6          for line in lines:
7              capitalized_line = line.title()
8              file.write(capitalized_line)
9
10 # Specify the file name
11 filename = "ABC.TXT"
12 capitalize_words_in_file(filename)
13
```

main.py | ABC.TXT

```
1 hello bye
2 while hi
3 bye
```

main.py | ABC.TXT

```
1 Hello Bye
2 While Hi
3 Bye
```

Gateway classes

Write a python program to count the frequency of words in a file

main.py test.txt

```
1 from collections import Counter
2 def word_count(fname):
3     with open(fname) as f:
4         return Counter(f.read().split())
5 print(word_count("test.txt"))
6
```

main.py test.txt

```
1 hello students hello
```

```
Counter({'hello': 2, 'students': 1})
```

Gateway classes



Gateway classes