

Python 基础

Day 04. Python 文件读写

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文件

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1. 文件读写

```
open(file, mode)
```

mode 模式

- `r` read default
- `a` append
- `w` write

- `x` create
- `t` text default
- `b` binary

读文件

- 文本文件 `text mode default`

```
# 文件读写
```

```
f = open('file_test.py', 'rt') # r and t are default
print(f.read())
f.close()
```

```
with open('file_test.py') as f:
    print(f.read())
```

```
with open('file_test.py') as f:
    print(f.read(3))
```

```
with open('file_test.py') as f:
    line = f.readline()
    while line:
        print(line.strip())
        line = f.readline()
```

```
with open('file_test.py') as f:
```

```
for x in f:
    print(x.strip())
```

```
with open('file_test.py') as f:
    for line in f.readlines():
        print(line.strip())
```

- 二进制文件 `binary mode`

```
with open('google.png', 'rb') as f:
    print(f.read())
```

- 网络文件

```
from urllib.request import urlopen

with urlopen('https://book.douban.com/subject/1005022/') as f:
    for line in f.readlines():
        print(line.decode('UTF-8').strip())
```

写文件

- 文本文件

```
with open('test.txt', 'w') as f:
    f.write('Hello, 你好!')
```

```
with open('test.txt', 'a') as f:  
    f.write('Hello, 你好!')
```

```
with open('test.txt', 'x') as f:  
    f.write('Hello, 你好!')
```

- 二进制文件

```
with open('google.png', 'rb') as f1:  
    with open('new.png', 'wb') as f2:  
        f2.write(f1.read())
```

2. 文件和目录

```
import os  
  
print(os.name)  
  
# POSIX: Portable Operating System Interface of UNIX  
# NT: New Technology  
  
print(os.uname()) # Not for Windows  
  
print(os.environ)  
  
print(os.environ.get('PATH'))
```

文件

- 删除文件

```
import os

os.remove('test.txt')
```

```
import os

if os.path.exists('test1.txt'):
    os.remove('test1.txt')
else:
    print('file not exist.')
```

- 重命名

```
import os

os.rename('new.png', 'test.png')
```

- 拷贝文件

```
import shutil

shutil.copyfile('test.png', 'new.png')
```

- 文件列表

```
import os

print([x for x in os.listdir('.') if os.path.isfile(x) and os.path.splitext(x)[1] == '.py'])
```

目录

- 当前目录

```
import os

print(os.path.abspath('.'))
```

- 拼接路径

```
import os

print(os.path.join('/users/mingfei/Desktop', 'new_dir'))
```

- 创建目录

```
import os

print(os.mkdir(os.path.join('/users/mingfei/Desktop', 'new_dir')))
```

- 删除目录

```
import os

print(os.rmdir(os.path.join('/users/mingfei/Desktop', 'new_dir')))
```

- 拆分路径

```
import os

print(os.path.split('/Users/mingfei/Desktop/test.txt'))
```

- 获取扩展名

```
import os

print(os.path.splitext('google.png'))
```

- 目录列表

```
import os

print([x for x in os.listdir('.') if os.path.isdir(x)])
```

4. 作业

1. 读取一个文本文件的前 N 行
2. 按行读取一个文件，把每行内容存入一个 list

3. 查询一篇英文文章的最长单词
4. 找出一片英文文章的最高频单词
5. 把 [图片网站](#) 下的所有视频存为本地文件