

# time库的使用

## 时间获取

time() , ctime , gmtime()

```
>>> time.time()    #计算机内部的时间值，浮点数
1635858554.290705
>>> time.ctime()    #人类易读
'Tue Nov  2 21:09:58 2021'
>>> time.gmtime()    计算机程序可以处理的格式
time.struct_time(tm_year=2021, tm_mon=11, tm_mday=2, tm_hour=13, tm_min=10, tm_sec=11, tm_wday=1, tm_yday=306, tm_isdst=0)
>>>
```

## 时间格式化

strftime() , strptime()

```
>>> timeStr='2021-11-04 12:54:30'
>>> time.strptime(timeStr,"%Y-%m-%d %H:%M:%S")
time.struct_time(tm_year=2021, tm_mon=11, tm_mday=4, tm_hour=12, tm_min=54, tm_sec=30, tm_wday=3, tm_yday=308, tm_isdst=-1)
>>>
```

## 程序的计时应用

sleep() , perf\_counter()

```
>>> import time
>>> time.gmtime()
time.struct_time(tm_year=2021, tm_mon=11, tm_mday=4, tm_hour=5, tm_min=11, tm_sec=51, tm_wday=3, tm_yday=308, tm_isdst=0)
>>> start=time.perf_counter()
>>> end=time.perf_counter()
>>> end-start

9.925610199999994
>>>
```

```
>>> import time
>>> time.time()
1635996158.28069
>>> time.gmtime()
time.struct_time(tm_year=2021, tm_mon=11, tm_mday=4, tm_hour=3, tm_min=22, tm_sec=42, tm_wday=3, tm_yday=308, tm_isdst=0)
>>> time.ctime()
'Thu Nov  4 11:23:05 2021'
>>> time.strftime("%Y-%m-%d %H:%M:%S")
'2021-11-04 11:23:17'
```