



PRAKTIKUM IZ PROGRAMIRANJA 3

VEŽBE 8

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Koristi se biblioteka **time**

time.time() – vraca vreme proteklo od tog 1.1.1970 (Unix epoha) [s]

```
import time
def calcProd():
    product = 1
    for i in range(1, 100000):
        product = product * i
    return product
startTime = time.time()
prod = calcProd()
endTime = time.time()
print('Took %s seconds to calculate.' % (endTime - startTime))
```



Biblioteka datetime se koristi za rad sa datumima

```
import datetime, time
print(datetime.datetime.now())
datum1 = datetime.datetime(2019, 4, 3, 19, 29, 0)
print(datum1.year)
datum2 = datetime.datetime.fromtimestamp(1000000000)
print(datum2)
```

Datumi se mogu porediti. (< , > , == , !=)



Timedelta predstavlja vremenski interval

```
delta = datetime.timedelta(days=11, hours=10, minutes=9, seconds=8)  
print(delta.total_seconds())
```

```
sad = datetime.datetime.now()  
desetDana = datetime.timedelta(days=10)  
nov = sad + desetDana  
print(nov)
```



Program se pauzira koriscenjem *time.sleep(btSek)*

```
for i in range(3):  
    print('Tick')  
    time.sleep(1)  
    print('Tock')  
    time.sleep(1)
```

```
round(broj,brDecimala)
```



- Pokretanje koda u nekom trenutku u budocnosti – **blokiraju**

```
import time, datetime
```

```
startTime = datetime.datetime(2019, 4, 4, 19, 12, 0)
```

```
while datetime.datetime.now() < startTime:
```

```
time.sleep(1)
```

```
print('Program now starting on Halloween 2029')
```



- Pokretanje koda u trenutku u budocnosti – **neblokirajuće**

```
import threading, time
```

```
print('Start of program.')
```

```
def takeANap():
```

```
    time.sleep(5)
```

```
    print('Wake up!')
```

```
threadObj = threading.Thread(target=takeANap)
```

```
threadObj.start()
```

```
print('End of program.')
```

Paziti sta se radi u funkcijama – problem konkurentnosti