

# CDS Assignment 1

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## Aim:

Benchmark different flavours of python like Idle,Anaconda,Cpython,etc.

## Introduction:

In this report, we present a comparison of two different Python flavours, namely Anaconda i.e Jupyter notebook and Idle, for printing the square of the number.

## Test :

### Idle Implementation:

 cds1.py - C:/Users/Jyothi/AppData/Local/Programs/Python/Python311/cds1.py (3.11.4)

File Edit Format Run Options Window Help

```
import timeit
def print_square(x):
    return x ** 2

#start
t0 = timeit.default_timer()

#call_function
result = print_square(11111111)

#end
t1 = timeit.default_timer()

# calculate elapsed time and print
elapsed_time = round((t1 - t0) * 10 ** 6, 3)
print(f"Elapsed time: {elapsed_time} µs")
```

### Time elapsed:

2.8  $\mu$ s

```
IDLE Shell 3.11.4
File Edit Shell Debug Options Window Help
Python 3.11.4 (tags/v3.11.4:d2340ef, Jun 7 2023, 05:45:37) [MSC v.1934 64 bit
AMD64] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/Jyothi/AppData/Local/Programs/Python/Python311/cds1.py
Elapsed time: 2.8  $\mu$ s
>>> |
```

### Anaconda i.e. Jupyter notebook Implementation:

```
In [2]: import timeit
def print_square(x):
    return x ** 2

#start
t0 = timeit.default_timer()

#call_function
result = print_square(11111111)

#end
t1 = timeit.default_timer()

# calculate elapsed time and print
elapsed_time = round((t1 - t0) * 10 ** 6, 3)
print(f"Elapsed time: {elapsed_time}  $\mu$ s")
```

### Time elapsed:

110.5  $\mu$ s

```
elapsed_time = round((t1 - t0)
print(f"Elapsed time: {elapsed
```

Elapsed time: 110.5  $\mu$ s

**Conclusion:**

**Idle was the fastest than the Jupyter notebook**