

Lambda and List Comprehensions

July 5, 2021

```
[1]: my_function = lambda a, b, c: a + b
```

```
[2]: my_function(1, 2, 3)
```

```
[2]: 3
```

```
[7]: people = ['Dr. Christopher Brooks', 'Dr. Kevyn Collins-Thompson', 'Dr. VG Vinod  
→Vydiswaran', 'Dr. Daniel Romero']
```

```
def split_title_and_name(person):  
    return person.split()[0] + ' ' + person.split()[-1]
```

```
[4]: #option 1  
for person in people:  
    print(split_title_and_name(person) == (lambda x: x.split()[0] + ' ' + x.  
→split()[-1])(person))
```

True

True

True

True

```
[5]: #option 2  
list(map(split_title_and_name, people)) == list(map(lambda person: person.  
→split()[0] + ' ' + person.split()[-1], people))
```

```
[5]: True
```

```
[8]: my_list = []  
for number in range(0, 1000):  
    if number % 2 == 0:  
        my_list.append(number)
```

my_list

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[11]: my_list = [number for number in range(0, 1000) if number % 2 == 0]  
my_list
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```
[14]: def times_tables():  
        lst = []  
        for i in range(10):  
            for j in range(10):  
                lst.append(i*j)  
        return lst
```

```
[15]: #changing the above function to a list comprehension  
times_tables() == [j*i for i in range(10) for j in range(10)]
```

```
[15]: True
```

```
[16]: lowercase = 'abcdefghijklmnopqrstuvwxyz'  
digits = '0123456789'  
  
correct_answer = [a+b+c+d for a in lowercase for b in lowercase for c in digits  
→for d in digits]  
  
correct_answer[:50] # Display first 50 ids
```

```
[16]: ['aa00',  
        'aa01',  
        'aa02',  
        'aa03',  
        'aa04',  
        'aa05',  
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[]: