Assignment-3

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Exercise-1

In [18]:
```
product = lambda num1, num2: num1 * num2
product(5,6)
```

Out[18]:
```
30
```

Exercise-2

In [19]:
```
import math

def calulate_area(radius):
    return (math.pi * (radius ** 2))

calulate_area(10)
```

Out[19]:
```
314.1592653589793
```

Exercise-3

In [20]:
```
def calculator(num1,num2,operation):
    if operation == "+":
        return num1+num2
    elif operation == "-":
        return num1-num2
    elif operation == "*":
        return num1*num2
    else:
        return num1/num2

calculator(2,5,'d')
```

Out[20]:
```
0.4
```

Exercise-4

In [21]:
```
class Rectangle:
    def __init__(self,length,width):
        self.length = length
        self.width = width

    def area(self):
        return self.length * self.width

r = Rectangle(5,10)
r.area()
```

Out[21]:
```
50
```

Exercise-5

In [22]:
```
class Shape:
    def __init__(self,name,length):
        self.name = name
        self.length = length

    def area(self):
        return 0

class Square(Shape):
    def __init__(self,name,length):
        super().__init__(name,length)

    def area(self):
        return f"The area is: {self.length ** 2}"

    def describe(self):
        return f"This is a: {self.name}"

s = Square('square',5)
print(s.area())
print(s.describe())
```

```
The area is: 25
This is a: square
```

In [ ]:
```

```