Assignment 3

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In [2]:
```
# 1. Lambda expression to get the product of two numbers
product = lambda x, y: x * y
print(product(5, 6))# 2. Function to get the area of a circle from the radius
import math

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

print(circle_area(10))
```

```
30
```

In [3]:
```
# 2. Function to get the area of a circle from the radius
import math

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

print(circle_area(10))
```

```
314.1592653589793
```

In [4]:
```
# 2. Function to get the area of a circle from the radius
import math

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

print(circle_area(10))
```

```
314.1592653589793
```

In [5]:
```
# 4. Rectangle class with area method
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)
print(r.area())
```

```
50
```

In [6]:
```
# 5. Shape class and Square subclass
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 self.length * self.length

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

s = Square("square", 5)
print("The area is:")
print(s.area())
print(s.describe())
```

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

In [ ]: