Assignment 3 Notebook

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ASSIGNMENT 3

4/10/2021 EXERCISE 1

[2]:
```
x= lambda num1,num2: num1*num2
x (5,6)
```

[2]:
```
30
```

EXERCISE 2

[9]:
```
def findArea(r):
    PI = 3.141592653589793238
    return PI * (r*r);
print("Area of circle = " , findArea(10));
```

```
Area of circle =  314.1592653589793
```

EXERCISE 3

[10]:
```
def add(P, Q):
   # This function is used for adding two numbers
   return P + Q
def subtract(P, Q):
   # This function is used for subtracting two numbers
   return P - Q
def multiply(P, Q):
   # This function is used for multiplying two numbers
   return P * Q
def divide(P, Q):
   # This function is used for dividing two numbers
   return P / Q
# Now we will take inputs from the user
print ("Please select the operation.")
print ("a. Add")
print ("b. Subtract")
print ("c. Multiply")
print ("d. Divide")
```

```
choice = input("Please enter choice (a/ b/ c/ d): ")

num_1 = int (input ("Please enter the first number: "))
num_2 = int (input ("Please enter the second number: "))

if choice == 'a':
   print (num_1, " + ", num_2, " = ", add(num_1, num_2))

elif choice == 'b':
   print (num_1, " - ", num_2, " = ", subtract(num_1, num_2))

elif choice == 'c':
   print (num1, " * ", num2, " = ", multiply(num1, num2))
elif choice == 'd':
   print (num_1, " / ", num_2, " = ", divide(num_1, num_2))
else:
   print ("This is an invalid input")
```

```
Please select the operation.
a. Add
b. Subtract
c. Multiply
d. Divide
Please enter choice (a/ b/ c/ d): d
Please enter the first number: 2
Please enter the second number: 5
2  /  5  =  0.4
```

EXERCISE 4

[11]:
```
class Rectangle():
    def __init__(self, l, w):
        self.length = l
        self.width  = w

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

newRectangle = Rectangle(5, 10)
print(newRectangle.rectangle_area())
```

```
50
```

EXERCISE 5

[50]:
```
class Shape():
    def __init__(self):
        pass
```

```
    def area(self):
        return 0

class Square(Shape):
    def __init__(self,length = 0):
        Shape.__init__(self)
        self.length = length

    def area(self):
        return self.length*self.length
Asqr = Square(5)
print("The area is:")
print(Asqr.area())
class Square(Square):
        print("This is a: square")
```

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

[ ]: