Raul Rodriguez
Python intro to Data Science
Lab 2

Exercise 1

Lab2_1.py > ...

```python
import myFunctions
a = float(input("Enter a number "))
b = float(input("Enter a number "))
while True:
    choice = input("choose what operation you would like to perform ")
    if choice=='+':
        myFunctions.addition(a,b)
    elif choice=='-':
        myFunctions.subtraction(a,b)
    elif choice=='*':
        myFunctions.multiplication(a,b)
    elif choice=='/':
        myFunctions.division(a,b)
    else:
        continue
```

```
/usr/local/bin/python3 /Users/raulrodriguez/Documents/WorkSpaceVSPython/Lab2_1.py
raulrodriguez@Rauls-MacBook-Air WorkSpaceVSPython % /usr/local/bin/python3 /Users/raulrodriguez/Documents/WorkSpaceVSPython/Lab2_1.py
Enter a number 2
Enter a number 4
choose what operation you would like to perform /
0.5
choose what operation you would like to perform +
6.0
choose what operation you would like to perform *
8.0
choose what operation you would like to perform -
-2.0
choose what operation you would like to perform
```

Exercise 2

Lab2_2.py > ...

```python
def factorialFunction(denominator,factorial):
    while factorial>0:
        factorial-=1
        if factorial==0:
            denominator*=factorial+1
        else:
            denominator*=factorial
    return denominator
sum = 1
numerator = 1
for i in range(1,11):
    denominator=i
    factorial = denominator
    denominator = factorialFunction(denominator,factorial)
    sum = sum+(numerator/denominator)
    print("sum",sum)
   #print(sum)
```

```
raulrodriguez@Rauls-MacBook-Air WorkSpaceVSPython % /usr/local/bin/python3 /Users/raulrodriguez/Documents/WorkSpaceVSPython/Lab2_2.py
sum 2.0
sum 2.5
sum 2.6666666666666665
sum 2.708333333333333
sum 2.7166666666666663
sum 2.7180555555555554
sum 2.7182539682539684
sum 2.71827876984127
sum 2.7182815255731922
sum 2.7182818011463845
raulrodriguez@Rauls-MacBook-Air WorkSpaceVSPython %
```

Exercise 3

```python
def myMinimum(a=8,b=2,c=10):
    if a<b and a<c:
        minimum = a
    elif b<a and b<c:
        minimum = b
    elif c<a and c<b:
        minimum = c
    return minimum
a = 4
b = 7
c = 34
minimum = myMinimum()
print(minimum)
```

```
s/raulrodriguez/Documents/WorkSpaceVSPython/Lab2_3.py
2
raulrodriguez@Rauls-MacBook-Air WorkSpaceVSPython %
```

Exercise 4

```python
def upperCaseCharacter(myStr):
    num = 0
    for i in myStr:
        if ord(i)<=90 and ord(i)>=65:
            print(i)
            num = num+1
    return num
myStr = input("Enter a String ")
num = upperCaseCharacter(myStr)
print(num)
```

```
raulrodriguez@Rauls-MacBook-Air WorkSpaceVSPython % /usr/local/bin/python3 /Users/raulrodriguez/Documents/WorkSpaceVSPython/Lab2_4.py
Enter a String Raul Rodriguez IS COOl
R
R
I
S
C
O
O
7
raulrodriguez@Rauls-MacBook-Air WorkSpaceVSPython %
```