Computing for Engineers – ENGG233

Lab 2

E. Aghaeekiasarae

Jaxon Braun

L01

Orange

Sept 25, 2020

Exercise 1: String Data Type in Python

Task 1.1: Methods for String – Part I

```
pROGRAMMING IS fun!
```

In this code, a message placed as a string in variable “msg” is being printed in the output. What is also happening is that the swapcase function is being called onto variable “msg”, which will change all uppercase characters into lowercase ones, and all lowercase characters turn into uppercase ones in the variable “msg”.

Task 1.2: Methods for String – Part II

```
MyName = "Jaxon Braun"
print(MyName.upper())
print(MyName.capitalize())
print(MyName.title())
```

```
JAXON BRAUN
Jaxon braun
Jaxon Braun
```

Exercise 2: Arithmetic Operators

```
#Randomly assinged values for variables
alpha = 3
beta = 6
x = 1
y = 9

z = (alpha*x**-beta+(1-beta)*y**-alpha)-1/beta
print(z)
```

```
2.8264746227709194
```

Exercise 3: A Simple Python Program that Interacts with the User

```
year = int(input("Enter Desired Year: "))
month = int(input("Enter Desired Month: "))
import calendar
calendar.prmonth(year, month)
```

```
Enter Desired Year: 2002
Enter Desired Month: 8
    August 2002
Mo Tu We Th Fr Sa Su
          1  2  3  4
 5  6  7  8  9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30 31
```

Exercise 4: Interacting with the User and Arithmetic Operations

```
num1 = int(input("What is the first number: "))
num2 = int(input("What is the second number: "))
print("The addition result is: ", num1 + num2)
print("The subtraction result is: ", num1 - num2)
print("The multiplication result is: ", num1 * num2)
print("The division result is: ", num1 / num2)
```

```
What is the first number: 43
What is the second number: 2
The addition result is:  45
The subtraction result is:  41
The multiplication result is:  86
The division result is:  21.5
```

Exercise 5: Interacting with the User and Conversion

```
mass = int(input("Enter a mass in pounds: "))
print("The mass in kilograms is approximately: ", mass / 2.205)
temp = int(input("Enter a temperature in Fahrenheit: "))
print("The temperature in Celcius approximately is: ", (temp - 32) * (5/9))
```

```
Enter a mass in pounds: 127
The mass in kilograms is approximately:  57.59637188208617
Enter a temperature in Fahrenheit: 97
The temperature in Celcius approximately is:  36.111111111111114
```