FUNCTIONS EXERCISE SOLUTIONS

TASK 1:IMPORT RANDOM INSIDE A FUNCTION WITH TWO PARAMETERS

WORK WITH

```
# Add code here

    # Add code here

    rd.seed(10)

    numbers = range(1, rd.randint(1, rad))

    calc = []
    for i in range(len(numbers)):
        # Add Code VV
         numbers[i] # Add code here:
            s = numbers[i]
            # Add code here

        #Add Code here
            s = 0
            # Add code here
    # Add code VV
    print((calc))
    #Add Code VV
        calc
```

FINAL INPUT

1ST

compute(20, 1)

2ND

compute(20, 0)

DESIRED OUTPUT

1ST

56

[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 11, 0, 13, 0, 15, 0, 17, 0]

2ND

60

[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 12, 0, 14, 0, 16, 0, 18]

HINTS?

1. Name the function **compute** and **import** random as **rd**.
2. The function, **compute** has two non-default parameters, **rad** and **num**.
3. In the **for** loop, use both **if** and **else** control flow
4. Use calc.append in two parts of this function, one for the **if** and **else**.
5. For the **if** statement, use modulus, **%** 2 == **num**, and **>** 10.
6. Don't forget to use the **return** at the end of your function!
7. For the **print**, use the **sum** for calc.

In [26]:

```
def compute(rad, num):

    import random as rd

    rd.seed(10)

    numbers = range(1, rd.randint(1, rad))

    calc = []
    for i in range(len(numbers)):

        if numbers[i] %2 == num and numbers[i] > 10:
            s = numbers[i]
            calc.append(s)

        else:
            s = 0
            calc.append(s)
    print(sum(calc))

    return calc
```

In [28]:

```
compute(20, 1)
```

```
56
```

Out[28]:

```
[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 11, 0, 13, 0, 15, 0, 17, 0]
```

In [ ]:

```

```

TASK 2: CALL A NESTED FUNCTION AND MODIFY ITS DEFAULT PARAMETER

WORK WITH

```
def lang(program = "JavaScript"):
```

```
    print("My favourite language is {}.".format(program))
```

FINAL INPUT

udemy("Python")

DESIRED OUTPUT

My favourite language is Python
The coolest part about Python is functions

HINTS?

1. Create a function called **udemy**() that uses a single **print**.
2. For **lang**(), default parameter is **"JavaScript"** which uses the **format** function.
3. For **udemy**(), the parameter can be changed and also uses **format**
4. Call **lang**() inside of **udemy**().

In [29]:

```
def lang(program = "JavaScript"):

    print("My favourite language is {}.".format(program))

def udemy(program):
    lang(program)
    print("The coolest part about {} is functions".format(program))
udemy("Python")
```

```
My favourite language is Python.
The coolest part about Python is functions
```

TASK 3: FUNCTION REPEATS ANOTHER FUNCTION WITH INPUT

WORK WITH

```
def greet(name= "Michael"):
    print("Hello there, " + name,"!")
```

DESIRED OUTPUT

Student name: Michael
Hello there, Michael !
Student name: Sarah
Hello there, Sarah !
Student name: Callum
Hello there, Callum !

HINTS?

1. For the function, **repeat**(), use a parameter, **n**, to use in a **for** loop.
2. In **repeat**(), use the **input** method and assign it to a variable called **name**.

3. Place the **greet** function inside the **repeat** function.

In [32]:

```
def greet(name= "Michael"):
    print("Hello there, " + name,"!")
```

In [33]:

```
def repeat(n):

    for i in range(n):
        name = input("Student name: ")
        greet(name)
repeat(3)
```

```
Student name: Michael
Hello there, Michael !
Student name: Sarah
Hello there, Sarah !
Student name: Callum
Hello there, Callum !
```

TASK 4: FUNCTION WITH CONTROL FLOW AND FORMATTING

WORK WITH

```
def survivor(name= "Michael"):
    zomb1 = input("How many zombies are there? ")
    zombie = (zomb1)

    if  add code here
            print("{} is fighting {} zombies!" # add code here

    elif add code here
            print("{} is shooting {} zombies!" # add code here

    elif add code here
            print("{} is running from {} zombies!" #add code here
    else:
        print("{} is eaten ALIVE by {} zombies!!!!!" #add code here
```

DESIRED OUTPUT

How many zombies are there? 110
Michael is running from 110 zombies!

HINTS?

1. Use the **eval** and an operator.
2. For the **if** statement, zombie between 1 and under 20
3. For the 1st **elif** statement, zombie between 20 and under 100
4. For the 2nd **elif** statement, zombie between 100 and under 200

SOLUTIONS AVAILABLE IN THE PDF FOR THIS SECTION!

In [34]:

```
def survivor(name= "Michael"):
    zomb1 = input("How many zombies are there? ")
    zombie = eval(zomb1)

    if zombie >= 1 and zombie < 20:
            print("{} is fighting {} zombies!".format(name, zombie))

    elif zombie >=20 and zombie < 100:
            print("{} is shooting {} zombies!".format(name, zombie))

    elif zombie >= 100 and zombie < 200:
            print("{} is running from {} zombies!" .format(name, zombie))
    else:
        print("{} is eaten ALIVE by {} zombies!!!!!".format(name, zombie))
```

In [37]:

```
survivor("Daryl")
```

```
How many zombies are there? 220
Daryl is eaten ALIVE by 220 zombies!!!!!
```