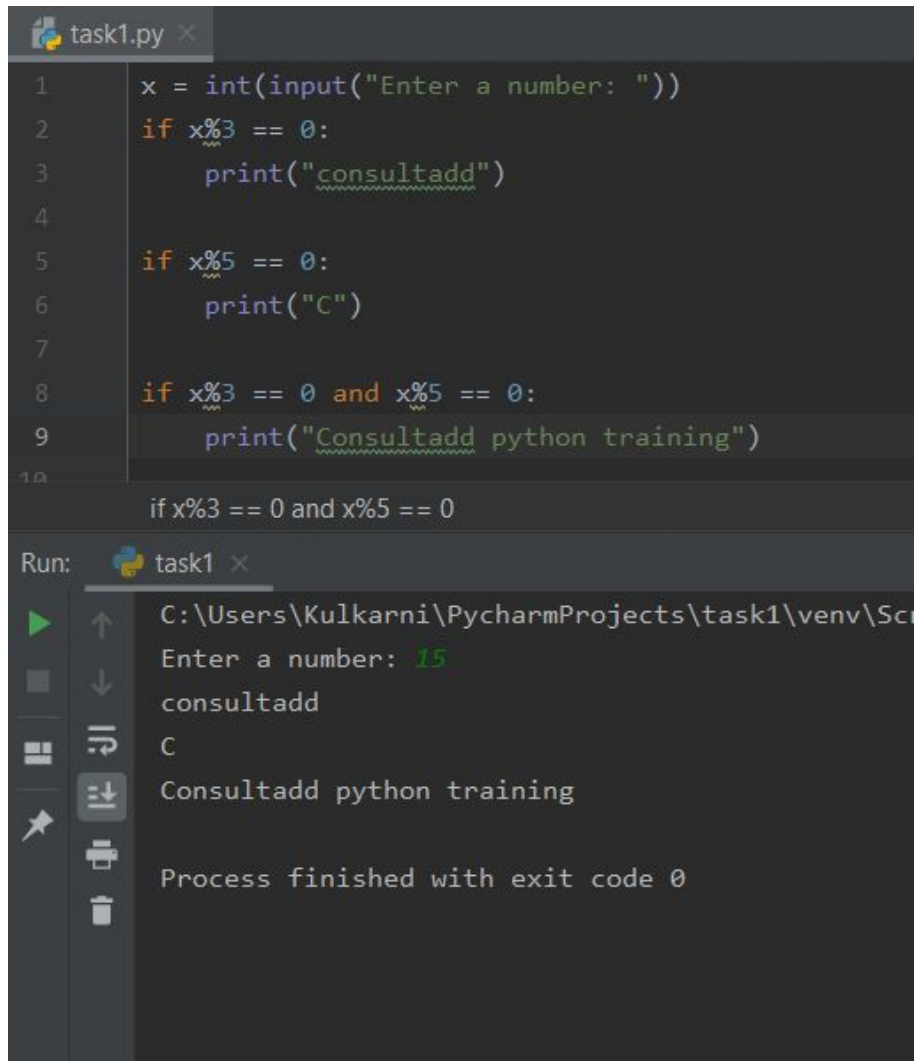1. Write a program in Python to perform the following operation:

- If a number is divisible by 3 it should print "Consultadd" as a string

- If a number is divisible by 5 it should print "c" as a string

- If a number is divisible by both 3 and 5 its should print "Consultadd Python Training" as a string.

```python
task1.py ×
1    x = int(input("Enter a number: "))
2    if x%3 == 0:
3        print("consultadd")
4
5    if x%5 == 0:
6        print("C")
7
8    if x%3 == 0 and x%5 == 0:
9        print("Consultadd python training")
10
```

if x%3 == 0 and x%5 == 0

```
Run:    task1 ×
        C:\Users\Kulkarni\PycharmProjects\task1\venv\Sc
        Enter a number: 15
        consultadd
        C
        Consultadd python training

        Process finished with exit code 0
```

2. Write a program in Python to perform the following operator based task:

- Ask the user to choose the following option first:

  - If User Enter 1 - Addition

  - If User Enter 2 - Subtraction

  - If User Enter 3 - Division

  - If USer Enter 4 - Multiplication

  - If User Enter 5 - Average

- Ask the user to enter the 2 numbers in a variable for first and second for the first 4 options mentioned above.

- Ask the user to enter two more numbers as first1 and second2 for calculating the average as soon as the user chooses an option 5.

- At the end of the answer of any operation is Negative print a statement saying "Zsa"

- NOTE: At a time users can perform one action at a time.

```python
x = int(input("Enter a number: "))
y,z = [int(x) for x in input("Enter two numbers: ").split()]
if x == 1:
    add = y+z
    print("Addition: ", add)

elif x == 2:
    diff = y-z
    print("Subtraction: ", diff)

elif x == 3:
    div = y/z
    print("Division: ", div)

elif x == 4:
    mul = y*z
    print("Multiplication:", mul)

elif x == 5:
    a,b = [int(x) for x in input("Enter two more numbers: ").split()]
    num_list=[y,z,a,b]
    avg = sum(num_list)/len(num_list)
    print("The average is: ", round(avg,2))
```

```
Microsoft Windows [Version 10.0.18362.720]
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(venv) C:\Users\Kulkarni\PycharmProjects\task1>python task1.py
Enter a number: 1
Enter two numbers: 3 4
Addition:  7

(venv) C:\Users\Kulkarni\PycharmProjects\task1>python task1.py
Enter a number: 2
Enter two numbers: 6 2
Subtraction:  4

(venv) C:\Users\Kulkarni\PycharmProjects\task1>python task1.py
Enter a number: 3
Enter two numbers: 20 5
Division:  4.0

(venv) C:\Users\Kulkarni\PycharmProjects\task1>python task1.py
Enter a number: 4
Enter two numbers: 6 5
Multiplication: 30

(venv) C:\Users\Kulkarni\PycharmProjects\task1>python task1.py
Enter a number: 5
Enter two numbers: 5 6
Enter two more numbers: 9 11
The average is:  7.75

(venv) C:\Users\Kulkarni\PycharmProjects\task1>
```

3.   Write a program in Python to implement the given flowchart:

```python
a=10
b=20
c=30

avg = (a+b+c)/3
print("Average: ", avg)

if avg>a and avg>b and avg>c:
    print("Avg is higher than a,b,c")

elif avg>a and avg>b:
        print("Avg is higher than a,b")

elif avg>a and avg>c:
        print("Avg is higher than a,c")

elif avg>b and avg>c:|
        print("Avg is higher than b,c")

elif avg>a:
    print("Avg is just higher than a")

elif avg>b:
    print("Avg is just higher than b")

elif avg>c:
    print("Avg is just higher than c")

elif avg>b and avg>c
```

task1 ×

```
C:\Users\Kulkarni\PycharmProjects\task1\venv\Scripts\python.exe C:/Users/Kulkarni/PycharmProjects/task1/task1.py
Average:  20.0
Avg is just higher than a

Process finished with exit code 0
```

4.   Write a program in Python to break and continue if the following cases occur:

- If the user enters a negative number just break the loop and print "It's Over"

- If the user enters a positive number just continue in the loop and print "Good Going"

```python
while True:
    num = int(input("Enter a number"))
    if num < 0:
        print("Its over")
        break

    if num > 0:
        print("Good going")
        continue
```

while True > if num > 0

list ×

```
"C:\Users\Kulkarni\PycharmProjects\Task 3\venv\Scripts\
Enter a number 10
Good going
Enter a number 14
Good going
Enter a number 2
Good going
Enter a number -2
Its over

Process finished with exit code 0
```

5.   Write a program in Python which will find all such numbers which are divisible by 7 but are not a multiple of 5, between 2000 and 3200.

```python
nl = []
for x in range(2000, 3200):
    if (x % 7 == 0) and (x % 5 != 0):
        nl.append(str(x))
print(','.join(nl))
```

list ×

```
"C:\Users\Kulkarni\PycharmProjects\Task 3\venv\Scripts\python.exe" "C:/Users/Kulkarni/PycharmProjects/Task 3/list.py"
2002,2009,2016,2023,2037,2044,2051,2058,2072,2079,2086,2093,2107,2114,2121,2128,2142,2149,2156,2163,2177,2184,2191,2198,2212,2219,2226,2233,2247,2254,2261,2268,2282,2289,2296,
2303,2317,2324,2331,2338,2352,2359,2366,2373,2387,2394,2401,2408,2422,2429,2436,2443,2457,2464,2471,2478,2492,2499,2506,2513,2527,2534,2541,2548,2562,2569,2576,2583,2597,2604,
2611,2618,2632,2639,2646,2653,2667,2674,2681,2688,2702,2709,2716,2723,2737,2744,2751,2758,2772,2779,2786,2793,2807,2814,2821,2828,2842,2849,2856,2863,2877,2884,2891,2898,2912,
2919,2926,2933,2947,2954,2961,2968,2982,2989,2996,3003,3017,3024,3031,3038,3052,3059,3066,3073,3087,3094,3101,3108,3122,3129,3136,3143,3157,3164,3171,3178,3192,3199

Process finished with exit code 0
```

6. What is the output of the following code examples?

i)

```
x = 123
for i in x:
    print(i)
```

```
task2 ×
    C:\Users\Kulkarni\PycharmProjects\task1\venv\Scripts\python.exe C:/Users/Kulkarni/PycharmProjec
    Traceback (most recent call last):
      File "C:/Users/Kulkarni/PycharmProjects/task1/task2.py", line 2, in <module>
        for i in x:
    TypeError: 'int' object is not iterable
```

ii)

```
i = 0
while i < 5:
    print(i)
    i += 1
    if i == 3:
        break
else:
    print("error")
```

```
else
task2 ×
    C:\Users\Kulkarni\PycharmProjects\task1\v
    0
    1
    2
```

iii)

```
count = 0
while True:
    print(count)
    count += 1
    if count >= 5:
        break
```

while True > if count >= 5

task2 ×

C:\Users\Kulkarni\PycharmProjects\task1\venv\Scripts\py
0
1
2
3
4

7. Write a program that prints all the numbers from 0 to 6 except 3 and 6.

   Expected output: 0 1 2 4 5

   Note: Use 'continue' statement

```
for x in range(6):
    if (x == 3 or x==6):
        continue
    print(x,end=' ')
print("\n")
```

task2 ×

C:\Users\Kulkarni\PycharmProjects\task1\venv\Scripts\
0 1 2 4 5

8. Write a program that accepts a string as an input from the user and calculate the number of digits and letters.

Expected output: consul12

Letters 6

Digits 2

```python
s = input("Input a string")
d = l = 0
for c in s:
    if c.isdigit():
        d = d + 1
    elif c.isalpha():
        l = l + 1
    else:
        pass
print("Letters", l)
print("Digits", d)
```

Terminal: Local × +

```
Microsoft Windows [Version 10.0.18362.720]
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(venv) C:\Users\Kulkarni\PycharmProjects\task1>python task2.py
Input a string consul12
Letters 6
Digits 2
```