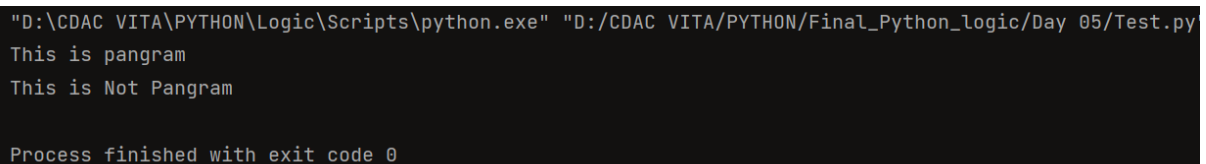## Q.1) Write a Python function to check whether a string is a pangram or not. Note : Pangrams are words or sentences containing every letter of the alphabet at least once. For example : "The quick brown fox jumps over the lazy dog"

```python
def is_pangram(s):

    s = s.lower()
    for ch in "abcdefghijklmnopqrstuvwxyz":
        if ch not in s:
            return "This is Not Pangram"
    return "This is pangram"

print(is_pangram("The quick brown  fox jumps over the lazy dog"))
print((is_pangram("Hello World")))
```

```
"D:\CDAC VITA\PYTHON\Logic\Scripts\python.exe" "D:/CDAC VITA/PYTHON/Final_Python_logic/Day 05/Test.py
This is pangram
This is Not Pangram

Process finished with exit code 0
```

Q.2) Write a Python program to calculate the sum of the digits in an integer.

```python
n = int(input("Enter a number: "))
s = 0

while n > 0:
    s = s + n % 10
    n = n // 10

print("Sum of digits:", s)
```

```
"D:\CDAC VITA\PYTHON\Logic\Scripts\python.exe" "D:/CDAC VITA/PYTHON/Final_Python_logic/Day 05/Test.py"
Enter a number: 123
Sum of digits: 6

Process finished with exit code 0
```

Q.3) Write a Python program to sort three integers without using conditional statements and loops. [u can use built in functions for this

n1 = int(input("Enter first number: "))

n2 = int(input("Enter second number: "))
n3 = int(input("Enter third number: "))

nums = sorted([n1, n2, n3])

print("Sorted numbers:", nums)

```
"D:\CDAC VITA\PYTHON\Logic\Scripts\python.exe" "D:/CDAC VITA/PYTHON/Final_Python_logic/Day 05/Test.py
Enter first number: 123
Enter second number: 125
Enter third number: 130
Sorted numbers: [123, 125, 130]

Process finished with exit code 0
```

] Q.4) Write a Python function to check whether a number is perfect or not. According to Wikipedia : In number theory, a perfect number is a positive integer that is equal to the sum of its proper positive divisors, that is, the sum of its positive divisors excluding the number itself (also known as its aliquot sum). Equivalently, a perfect number is a number that is half

the sum of all of its positive divisors (including itself).
Example : The first perfect number is 6, because 1, 2, and 3
are its proper positive divisors, and 1 + 2 + 3 = 6. Equivalently,
the number 6 is equal to half the sum of all its positive
divisors: (1 + 2 + 3 + 6) / 2 = 6. The next perfect number is 28
= 1 + 2 + 4 + 7 + 14. This is followed by the perfect numbers
496 and 8128.

```python
def perfect(n):
    s = 0
    for i in range(1, n):
        if n % i == 0:
            s += i
    return s == n


num = int(input("Enter number: "))
print("Perfect number" if perfect(num) else "Not a perfect number")


num = int(input("Enter number: "))
print("Perfect number" if perfect(num) else "Not a perfect number")
```

```
"D:\CDAC VITA\PYTHON\Logic\Scripts\python.exe" "D:/CDAC VITA/PYTHON/Final_Python_logic/Day 05/Test.py"
Enter number: 28
Perfect number
Enter number: 30
Not a perfect number

Process finished with exit code 0
```