

ITERATIVE STATEMENTS IN PYTHON

INSTRUCTIONS FOR TASKS

PROBLEM 1: FACTORIAL CALCULATOR FOR ALF

- Instruction: Develop a user-input program using the provided code template for a “Factorial Calculator for Alf”. The program should prompt Alf to input a non-negative integer. Be cautious when reading input of various data types, ensuring that the entered value is a valid non-negative integer. Once Alf provides the input, calculate the factorial of the entered integer using a loop. Display the result using an appropriate string concatenation method, showcasing your personal preference.
- Note: The program should handle user inputs gracefully, ensuring the entered value is a non-negative integer. Display the calculated factorial result accurately and maintain a clear and readable format in the output.
- Example Output:

```
FACTORIAL CALCULATOR FOR ALF
```

```
Please, enter a non-negative integer: 5  
The factorial of 5 is: 120
```

PROBLEM 2: FACTORIAL CALCULATOR FOR ALF

- Instruction: Develop a user-input program for determining if a given positive integer is a Perfect Number. The program should prompt the user to input a positive integer, validate the input, and then check if the entered number is a Perfect Number. A Perfect Number is a positive integer that is equal to the sum of its proper divisors (excluding itself). Implement the solution using a loop to find the divisors and conditions to check for perfection.

$$6 = 1 + 2 + 3$$

Perfect Number Proper Divisors

- Note: Ensure the program gracefully handles user inputs, validating that the entered value is a positive integer. Display the result clearly, indicating whether the input is a Perfect Number or not.
- Tip: You can use if-else statement or ternary operator to display the result.
- Example Output:

PUP Manila

aws
Cloud
Clubs
PUP MANILA

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```
PERFECT NUMBER DETERMINATOR FOR ALF
```

```
Please, enter a positive integer: 6  
6 is a Perfect Number.
```

```
PERFECT NUMBER DETERMINATOR FOR ALF
```

```
Please, enter a positive integer: 10  
10 is not a Perfect Number.
```

