PYTHON FLOW CONTROL: EXERCISE

Here's a set of programming exercises involving functions, if statements and loops that you can solve:

1. Even or Odd: Write a function called evenOrOdd that takes an integer as input and returns "Even" if the number is even, and "Odd" if the number is odd.

2. Maximum of Two Numbers: Write a function called maxOfTwo that takes two numbers as input and returns the maximum of the two.

3. Leap Year Checker: Write a function called isLeapYear that takes a year as input and returns True if it is a leap year, and False otherwise. (A leap year is divisible by 4, but not by 100 unless it is also divisible by 400).

4. Factorial Calculator: Write a function called factorial that takes an integer as input and returns its factorial. The factorial of a number n is the product of all positive integers less than or equal to n.

5. Greatest Common Divisor (GCD): Write a function called gcd that takes two positive integers as input and returns their greatest common divisor.

6. Absolute Value: Write a function called absoluteValue that takes a number as input and returns its absolute value without using the built-in abs() function.

7. Temperature Converter: Write a function called convertTemperature that takes a temperature in Celsius as input and returns it converted to Fahrenheit. The conversion formula is: Fahrenheit = (Celsius * 9/5) + 32.

8. Grade Calculator: Write a function called calculateGrade that takes a score as input and returns the corresponding letter grade according to the following scheme:
   - 90-100: A
   - 80-89: B
   - 70-79: C
   - 60-69: D
   - Below 60: F

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9. Sum of Squares with Loop: Write a function called sumOfSquares that takes a positive integer n as input and calculates the sum of the squares of all positive integers up to n using a loop. The function should return the resulting sum.

10. Quadratic Equation Solver: Write a function called solveQuadratic that takes three numbers (a, b, c) as input, representing the coefficients of a quadratic equation ax^2 + bx + c = 0, and returns the solutions as a tuple. If the equation has no real roots, return None.

Feel free to try solving these exercises, and let me know if you need any further assistance or solutions!

Want to Become a Python Expert?
If you're serious about learning Python and getting a job as a Python developer, I highly encourage you to enroll in my Complete Python Course. Don't waste your time following disconnected, outdated tutorials.

My Complete Python Course has everything you need in one place.

- About 10 hours of HD video
- Unlimited access - watch it as many times as you want
- Self-paced learning - take your time if you prefer
- Watch it online or download and watch offline
- One on one training with me 2-4 times a week

Sincerely,

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