Coding Assignment 02

CSCI 220: Dr. Hajja

Due Monday, September the 12th (midnight)

Learning objectives: Write four Python functions that demonstrate your understanding for loops and decision structures (if/else). Write all four functions in one Main.py Python file. Upload the file through Oaks.

Question 1) Write a Python function ('question01') to find the sum of the cubes of the first n natural numbers where the value of n is provided by the user

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Question 2) A Fibonacci sequence is a sequence of numbers where each successive number is the sum of the previous two. The classic Fibonacci sequence begins: 1, 1, 2, 3, 5, 8, 13, ...

Write a Python function ('question02') that computes the n^{th} Fibonacci number, where the value n is provided by the user. For example, if $n = 6$, then the result should be 8.

Question 3) Many companies pay time-and-a-half for any hours worked above 40 in a given week. Write a Python function ('question03') that takes (from the user) the number of hours worked and the hourly rate, and calculates the total wages for the week.

Question 4) A certain CS professor gives 100-point exams that are graded on the scale 90-100: A, 80-89: B, 70-79: C, 60-69: D, < 60: F. Write a Python function ('question04') that accepts an exam score as input and uses a decision structure to calculate the corresponding grade.