

Lab 7 - Strings

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In this lab we're going to briefly explore some string manipulations and presentation of data.

Problem 1. Output formatting and the Fibonacci numbers The Fibonacci numbers are defined as $F_n = F_{n-1} + F_{n-2}$, where $F_0 = 0$, $F_1 = 1$

Write a program to display the first n Fibonacci numbers in a nicely formatted tables, where n is provided by the user. A nicely formatted table for integers should be right justified with appropriate column headings

Problem 2. Parsing input Modify problem 1 to allow the user to input the term relationship in the form of $A F_1 + B F_2$, where A and B are optional, and F_0 & F_1

For example, if the users enters $5 F_1 + 6 F_2$, then the relationship should be $5F_{n-1} + 6F_{n-2}$. If the users enters $F_1 + F_2$, they will get the Fibonacci sequence. Do not take A and B as separate inputs. The program should only prompt the user for n and the equation.

Hint: Look up the split method for the string object