FTR Developer Coding Test

Overview

Write the below program in the language and technology of your choice (console, desktop app, web). The way the system handles user interaction isn't important, but preserving the features is. For example, if you create a website you may choose to implement halt/resume as buttons not text inputs.

Note: Your code should be production ready and include appropriate tests.

The Application

Create an application accepts an ongoing series of user supplied numbers and outputs notifications when certain conditions are met. It should operate as follows:

1. On startup, the program will prompt the user for the number of seconds (X) between outputting the frequency of each number to the screen.
2. Every X seconds the program will display, in frequency descending order, the list of numbers and their frequency.
3. If the user enters 'halt' the timer should pause
4. If the user enters 'resume' the timer should resume
5. If the user enters a number that is one of the first 1000 Fibonacci numbers, the system should alert "FIB" 6. If the user enters "quit", the application should output the numbers and their frequency, a farewell message and finally terminate.

Example

>> Please input the number of time in seconds between emitting numbers and their frequency
15

>> Please enter the first number
10

>> Please enter the next number
10

>> Please enter the next number
8

>> FIB

>> Please enter the next number
>> 10:2, 8:1
halt

>> timer halted
10

>> Please enter the next number
resume

>> timer resumed
8
>> FIB

>> Please enter the next number
33

>> 10:3, 8:2, 33:1

>> Please enter the next number
quit

>> 10:3, 8:2, 33:1
>> Thanks for playing, press any key to exit.