Automated Logic Internship Opportunity

Here is my solution to the attached problems. The system was programmed in a C# console project, in the Visual Studios 2013 edition. I first created a general power factor check that will check if a given input is a power factor of a second input integer. I simply divided the input by the power and if it is greater than the power, loop in recursion until it is equal to power or less. After a few test cases, it seems to have worked.

Then the conversion to pig Latin required first to split the English phrase into words and punctuations. I decided to use Regular Expressions to separate the input string into two arrays, one for words and one for punctuations and numbers. I then convert the words into pig Latin while taking into account the vowels exception. Finally, I concatenated all the translated words and punctuations back together. After a few trial and errors, I seem to have it down.

The console project required only two basic system dependencies: System and System.Text.RegularExpressions.

Here are the test cases used:

Power Tests

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| --- | --- | --- | --- | --- |
| Test # | Input | Expected Output | Actual Output | Details |
| 1 | Input: 4 power: 2 | true |  |  |
|  | Input: 5 power: 2 | false |  |  |
|  | Input:0 power:5 | true |  |  |
|  | Input:-25 power: 5 | true |  |  |
|  | Input: 125 power:-5 | false |  |  |
|  | Input:25 power: -5 | true |  |  |
|  | Input: -9 power: -3 | true |  |  |
|  | Input:10 power: 0 | false |  |  |
|  | Input: power: |  |  |  |
|  | Input: power: |  |  |  |
|  | Input: power: |  |  |  |
|  | Input: power: |  |  |  |
|  | Input: power: |  |  |  |

Pig Latin Tests

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test # | Input | Expected Output | Actual Output | Details |
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