SkillsUSA 2024-04-06

Range Interpreter

Build a function named `rangeInterpreter`, which will accept one input: A string which is a comma and/or hyphen-separated range description.

A comma in the input separates individual numbers or groups of numbers. A hyphen indicates a range of numbers within a comma group (e.g., 1-3 = 1,2,3). Expansion of a hyphenated group should only include integers between the first and last number of the range.

Data returned must be an array (or your language's equivalent). Numbers must be integer type (or your language's equivalent). Array must be in order from lowest to highest. Output must not contain any duplicate items.

- Negative numbers and negative hyphenated ranges are *valid* (e.g., `"-3--1 = -3,-2,-1"`)
- Floating-point numbers should be rounded down (decimal discarded) and processed as integers
- Non-numerical characters (other than comma and hyphen) are *invalid*
- Reversed ranges (ie: `"10-5"`) are *invalid*
- Invalid data must be handled one of two ways (contestant's choice):
  - Halt the function and throw a descriptive error which indicates the erroneous data.
  - Display a descriptive warning, discard the bad data, and continue processing the good data.

Examples:

- Input: `"1,2,3,5"`
  - Output: `[1,2,3,5]`
- Input: `"1,2,6-12"`
  - Output: `[1,2,6,7,8,9,10,11,12]`
- Input: `"4,8-11,6-9,4"`
  - Output: `[4,6,7,8,9,10,11]`
- Input: `"1-3,0,-2-1,-3--2"`
  - Output: `[-3,-2,-1,0,1,2,3]`

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