Problem Wk.1.4.5: OOPs

Part 1: Assign

Write a procedure, called `assignThing`, that takes two `Thing`s, `thing1` and `thing2`, as arguments and sets the stored value (x) of `thing1` to the stored value of `thing2`.

Use the `set` and `get` methods of `Thing`, do not access x directly.

Part 2: Swap

Write a procedure, called `swapThing`, that takes two `Thing`s as arguments and swaps (interchanges) the stored values, (x), of the input `Thing`s

Use the `set` and `get` methods of `Thing`, do not access x directly.

Part 3: Sum

Write a procedure, called `sumOfThings`, that takes two `Thing`s as arguments and returns a new `Thing` whose stored value, (x), is the sum of the stored values of the input `Thing`s.

Use the `set` and `get` methods of `Thing`, do not access x directly.

Part 4: Sum of All

Write a procedure, called `sumOfAllThings`, that takes a **list** of `Thing`s as its argument and returns a new `Thing` whose stored value, (`x`), is the sum of the stored values of all the input `Thing`s. The sum of an empty list is 0.

Use the `set` and `get` methods of `Thing`, do not access `x` directly.

Python has a built-in function `sum` that will be useful. Look up its definition in the documentation.

You must use a list comprehension in your answer.

6.01SC Introduction to Electrical Engineering and Computer Science
Spring 2011