POTD9.1. Problem of the Day #9

Download and Extract

An initial setup of files is provided to you via a shell script: Download potd-q9

Using a terminal, extract the initial files by running the shell script you just downloaded (you will need to navigate to the directory where you saved the file):

```
sh potd-q9.sh
```

Your files for this problem will be in the `potd-q9` directory.

The Problem

In class you saw how to create a dynamic list of property names. This time we are going to extend that by making a class that keeps track of both properties and values (e.g., property: color, value: green).

Write a class `Thing`. It should have these private variables:

- `int props_ct_` to count how many properties we have,
- `int props_max_` to return the maximum number or properties,
- `string *properties_` containing the names of the properties,
- `string *values_` containing the values of the properties.

Your class should have the following methods:

- `Thing(int size)` — a constructor that takes the max size of the properties and values arrays.
- `Thing(const Thing &)` — a copy constructor.
- The other two methods you need because of the Rule of Three. Make your own private `copy_` and `destroy_` methods to assist with this.
- `int set_property(string name, string value)` — Takes a property name and value, and inserts them into the arrays. Returns the index into the array if successul, and `-1` if the array was full. If the property name already exists, replace the value.
- `string get_property(string name)` — Returns the corresponding value for a given property name, or else an empty string if that property is not found.
- You may want to have a `_copy(const Thing &)` method, but that is optional.

Testing Your Code

Run the following commands to compile and execute your code:

```
make
./main
```

Sample Output

```
Kermit is Green
Kermit is Green
Grover is Blue
```

Upload Solution

Drop files here or click to upload

POTD 9

Total points: 0/1

Score: 0%

Question

Value: 1

History:

Awarded points: 0/1

Report an error in this question

Previous question

Next question

Only the files listed below will be accepted—others will be ignored.

Files

Thing.cpp
not uploaded

Save & Grade | Save only