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// Name: James Small
// Program: 3B
// Class: CSE455
// Description: StringToFloat class implementation file

#include "StringToFloat.h"
#include <stdlib.h> // for atof
#include <ctype.h> // for isdigit

// Constructor which sets the currentFloat to 0

StringToFloat::StringToFloat()
{
    currentFloat = 0;
}

// This method takes a string and returns true or false if a float

bool StringToFloat::isStringAFloat(string stringToTest)
{
    currentString = stringToTest;
    int periodsCount = 0;
    bool nonDigitFound = false;
    bool isFloat = false;

    for (int i = 0; i < currentString.length(); i++) {
        if (!isdigit(currentString[i])) {
            if (currentString[i] == '.') {
                periodsCount++;
            }
            else if (currentString[i] == '-') {
                if (i != 0)
                    nonDigitFound = true;
            } else
                nonDigitFound = true;
        }
    }

    if (!nonDigitFound && periodsCount < 2) {
        isFloat = true;
        currentFloat = atof(currentString.c_str());
    }

    return isFloat;
}

// This method returns the float value

float StringToFloat::getFloatValue()
{
    return currentFloat;
}
```