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Subject: Need help with my C++ code

Posted by [\\_SSnipe\\_](#) on Wed, 23 Mar 2011 19:15:38 GMT

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ok here is the story; I am still new at c++. I have only been taking the class for about a month. one assignment is make a program so its kinda like a vending machine for a deep fried twinkie (lol?), anyways if you see the code, i have a variable called money\_pool which is used in a while loop, and different functions throughout the code. however, my professor said we can;t do global variables, so he recommended using call-by-reference (pointers) which he has barley started teaching us for about 5 minutes. So in other words, I don;t know about them yet and i'm trying to get my program to work with them. So far I messed up my code, like I said before it worked as global but since we can;t do that lv been trying to figure out pointers in order to get it working, so I ask if someone can help me get this working. The problem is the variable money\_pool....I hope....

I only ask if people dont suggest other ways to re arrange my functions of programs since they are ok, I only need to figure out how to get this to work like it used to

so please help me,

```
#include <cstdlib>
#include <iostream>
#include <string.h>
using namespace std;

void money_message();
double insert_coin(double coin, double&);
void intro_message();
void end_message();
string selections(string string_pool);
void wrong_input(double&);
void welcome_banner();
void while_loop(double&);

char response; // to restart program

const int zer0 = 0;
const double three_fifty = 3.50;

int main()
{
    double money_pool = 0;

    cout.setf(ios::fixed);
```

```

cout.setf(ios::showpoint);
cout.precision(2);

do {

    intro_message();
    while_loop(money_pool);
    end_message();

} while ((response == 'y') || (response == 'Y'));

system("PAUSE");
return 0;
}

void while_loop(double& money_pool)
{
    while (money_pool < three_fifty)
    {
        money_message();
    }
}

//displays what user to input then puts it into a string that calls for selections function
void money_message()
{
    using namespace std;
    string string_pool;
    cout << "Type quarter for .25" << endl;
    cout << "Type nickle for .05" << endl;
    cout << "Type dime for .10" << endl;
    cout << "Type dollar for 1.00" << endl;
    cout << endl;
    cin >> string_pool;
    selections(string_pool);
}

//function gets called and has different value for coin depending on users entry, if current value is
3.50 or above, gives back change if not display current money and remaining and continues to
loop
double insert_coin(double coin, double& money_pool)
{
    double change;
    money_pool = money_pool + coin;
    system("CLS");
}

```

```

    if (money_pool > three_fifty)
    {
        welcome_banner();
        change = money_pool - three_fifty;
        cout << "Your change is: " << change << endl;
        cout << endl;
    }

    else
    {

        welcome_banner();
        cout << "You have inserted: " << money_pool << " So far" << endl;
        cout << "Remaining Balance: " << three_fifty - money_pool << endl;
        cout << endl;
    }

return money_pool;
}

//if user at anytime types in wrong char or string

void wrong_input(double& money_pool)
{
    using namespace std;
    system("CLS");
    welcome_banner();
    cout << "*****" << endl;
    cout << "Not a valid entry, Please try again" << endl;
    cout << "*****" << endl;
    cout << endl;
    cout << "Remaining Balance for a Deep Fried Twinkie: " << three_fifty - money_pool << endl;
    cout << endl;
}

// display intro message
void intro_message()
{
    welcome_banner();
    cout << "Want a deep fried twinkie?" << endl;
    cout << "Only $3.50" << endl;
    cout << endl;
}

// display after program ends
void end_message()
{
    cout << "Enjoy your deep fried twinkie" << endl;
}

```

```

    cout << endl;
    cout << "Want another? (type y for yes, anything else quits)" << endl;
    cin >> response;
    system("CLS");
}

// my banner that should always be on top of screen to look pretty =]
void welcome_banner()
{
    cout << "*****" << endl;
    cout << "*   Welcome to Tanner's   *" << endl;
    cout << "*   Deep Fried Twinkie   *" << endl;
    cout << "*       Dispenser       *" << endl;
    cout << "*****" << endl;
    cout << endl;
}

// selection function takes result from money_message function and then runs coin function
depending on which string, if none runs error function
string selections(string string_pool)
{
    using namespace std;
    double coin = zero;
    const double dollar = 1.00;
    const double nickle = .05;
    const double dime = .10;
    const double quarter = .25;

    if ((string_pool == "quarter") || (string_pool == "nickle") || (string_pool == "dime") || (string_pool
== "dollar"))
    {
        if (string_pool == "quarter")
        {
            coin = quarter;
            insert_coin(coin);
        }
        if (string_pool == "nickle")
        {
            coin = nickle;
            insert_coin(coin);
        }
        if (string_pool == "dime")
        {
            coin = dime;
            insert_coin(coin);
        }
        if (string_pool == "dollar")
        {

```

```
        coin = dollar;
        insert_coin(coin);
    }
}
else
{
    // wrong_input(double&);
}
}
```

Quote:

C:\Users\rcc\Documents\Untitled1.cpp In function `std::string selections(std::string)':  
69 C:\Users\rcc\Documents\Untitled1.cpp too few arguments to function `double insert\_coin(double, double&)'  
154 C:\Users\rcc\Documents\Untitled1.cpp at this point in file  
69 C:\Users\rcc\Documents\Untitled1.cpp too few arguments to function `double insert\_coin(double, double&)'  
159 C:\Users\rcc\Documents\Untitled1.cpp at this point in file  
69 C:\Users\rcc\Documents\Untitled1.cpp too few arguments to function `double insert\_coin(double, double&)'  
164 C:\Users\rcc\Documents\Untitled1.cpp at this point in file  
69 C:\Users\rcc\Documents\Untitled1.cpp too few arguments to function `double insert\_coin(double, double&)'  
169 C:\Users\rcc\Documents\Untitled1.cpp at this point in file

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Subject: Re: Need help with my C++ code  
Posted by [\\_SSnipe\\_](#) on Wed, 23 Mar 2011 20:16:59 GMT  
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Nevermind guys, a professor came into the lab and sat down with me and helped me fix it as you can see here

```
#include <cstdlib>
#include <iostream>
#include <string.h>
using namespace std;

void money_message(double&);
double insert_coin(double coin, double&);
void intro_message();
void end_message(char&);
```

```
void selections(string string_pool, double&);
void wrong_input(double&);
void welcome_banner();
void while_loop();
```

```
int zer0 = 0;
const double three_fifty = 3.50;
```

```
int main()
{
    char response; // to restart program
    double money_pool;
    cout.setf(ios::fixed);
    cout.setf(ios::showpoint);
    cout.precision(2);

    do {
        money_pool = 0;
        intro_message();

        while (money_pool < three_fifty)
        {

            money_message(money_pool);

        }

        end_message(response);

    } while ((response == 'y') || (response == 'Y'));

    system("PAUSE");
    return 0;
}
```

```
/*
void while_loop()
{
    while (money_pool < three_fifty)
    {
        money_message();
    }
}
*/
```

```
//displays what user to input then puts it into a string that calls for selections function
void money_message(double& money_pool)
{
```

```

using namespace std;
string string_pool;
cout << "Type quarter for .25" << endl;
cout << "Type nickle for .05" << endl;
cout << "Type dime for .10" << endl;
cout << "Type dollar for 1.00" << endl;
cout << endl;
cin >> string_pool;
selections(string_pool, money_pool);
}

```

//function gets called and has different value for coin depending on users entry, if current value is 3.50 or above, gives back change if not display current money and remaining and continues to loop

```

double insert_coin(double coin, double& money_pool)
{

```

```

    double change;
    money_pool = money_pool + coin;
    system("CLS");

```

```

    if (money_pool > three_fifty)
    {
        welcome_banner();
        change = money_pool - three_fifty;
        cout << "Your change is: " << change << endl;
        cout << endl;
    }

```

```

    else
    {
        welcome_banner();
        cout << "You have inserted: " << money_pool << " So far" << endl;
        cout << "Remaining Balance: " << three_fifty - money_pool << endl;
        cout << endl;
    }

```

```

return money_pool;
}

```

//if user at anytime types in wrong char or string

```

void wrong_input(double& money_pool)
{
    using namespace std;
    system("CLS");
    welcome_banner();
}

```

```

    cout << "*****" << endl;
    cout << "Not a valid entry, Please try again" << endl;
    cout << "*****" << endl;
    cout << endl;
    cout << "Remaining Balance for a Deep Fried Twinkie: " << three_fifty - money_pool << endl;
    cout << endl;
}

// display intro message
void intro_message()
{
    welcome_banner();
    cout << "Want a deep fried twinkie?" << endl;
    cout << "Only $3.50" << endl;
    cout << endl;
}

// display after program ends
void end_message(char& response)
{
    cout << "Enjoy your deep fried twinkie" << endl;
    cout << endl;
    cout << "Want another? (type y for yes, anything else quits)" << endl;
    cin >> response;
    system("CLS");
}

// my banner that should always be on top of screen to look pretty =]
void welcome_banner()
{
    cout << "*****" << endl;
    cout << "*   Welcome to Tanner's   *" << endl;
    cout << "*   Deep Fried Twinkie   *" << endl;
    cout << "*       Dispenser       *" << endl;
    cout << "*****" << endl;
    cout << endl;
}

// selection function takes result from money_message function and then runs coin function
depending on which string, if none runs error function
void selections(string string_pool, double& money_pool)
{
    using namespace std;
    double coin = zer0;
    const double dollar = 1.00;
    const double nickle = .05;
    const double dime = .10;
    const double quarter = .25;
}

```

```
if ((string_pool == "quarter") || (string_pool == "nickle") || (string_pool == "dime") || (string_pool == "dollar"))
{
    if (string_pool == "quarter")
    {
        coin = quarter;
        insert_coin(coin, money_pool);
    }
    if (string_pool == "nickle")
    {
        coin = nickle;
        insert_coin(coin, money_pool);
    }
    if (string_pool == "dime")
    {
        coin = dime;
        insert_coin(coin, money_pool);
    }
    if (string_pool == "dollar")
    {
        coin = dollar;
        insert_coin(coin, money_pool);
    }
}
else
{
    wrong_input(money_pool);
}
}
```

anyways im happy

---

---

Subject: Re: Need help with my C++ code  
Posted by [Hypnos](#) on Wed, 23 Mar 2011 22:16:35 GMT  
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There's an "Other" section at the bottom where this should of been posted.

Glad you got it fixed though.

---

---

Subject: Re: Need help with my C++ code

Posted by [\\_SSnipe\\_](#) on Thu, 24 Mar 2011 04:03:24 GMT

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Hypnos wrote on Wed, 23 March 2011 15:16: There's an "Other" section at the bottom where this should of been posted.

Glad you got it fixed though.

Ya but honestly hardly anyone checks that section

---

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Subject: Re: Need help with my C++ code

Posted by [Dover](#) on Thu, 24 Mar 2011 04:25:22 GMT

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With good reason, because nobody wants to do your homework for you.

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Subject: Re: Need help with my C++ code

Posted by [reborn](#) on Thu, 24 Mar 2011 08:46:24 GMT

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---

You're still using global variables (although there seems little need, I believe you really want to use DEFINE instead), and there are functions which declare that you're using the std namespace, which is weird, because you've already added that at the top just under your includes.

---

---

Subject: Re: Need help with my C++ code

Posted by [danpaul88](#) on Thu, 24 Mar 2011 08:49:46 GMT

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Curiously, your insert\_coin function takes money\_pool as a reference, but also returns it as the result of the function? If its passed as a reference there's no need to return it's value since any changes made to its value will persist after the function call.

---

---

Subject: Re: Need help with my C++ code

Posted by [reborn](#) on Thu, 24 Mar 2011 09:12:33 GMT

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---

Yeah, DP's right.

When you call the function you're not even asking for a return value:

```
if (string_pool == "quarter")
{
```

```
    coin = quarter;
    insert_coin(coin, money_pool);
}
```

If you was doing this:

```
if (string_pool == "quarter")
{
    coin = quarter;
    double return = insert_coin(coin, money_pool);
    printf("%d\n", return); //or cout, whatever
}
```

Then I might understand, but even then, you would still be able to do:

```
if (string_pool == "quarter")
{
    coin = quarter;
    insert_coin(coin, money_pool);
    printf("%d\n", money_pool); //or cout, whatever
}
```

I believe that is the point DP was trying to make to you.

---

---

Subject: Re: Need help with my C++ code  
Posted by [Sir Kane](#) on Fri, 25 Mar 2011 03:31:46 GMT  
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---

using namespace std;  
That's your problem right there!

---

---

Subject: Re: Need help with my C++ code  
Posted by [\\_SSnipe\\_](#) on Fri, 25 Mar 2011 03:50:42 GMT  
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---

Sir Kane wrote on Thu, 24 March 2011 20:31 using namespace std;  
That's your problem right there!  
You know I hear good things about this, but bad yet people like you say comments like that, whats wrong with it?

---

---

Subject: Re: Need help with my C++ code  
Posted by [reborn](#) on Fri, 25 Mar 2011 08:54:37 GMT

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---

The std namespace has a lot of identifiers, and they are called generic things like string or iterator. If you use another library then there could be a chance that it has the same identifier. Even if the other library doesn't use the same identifier at the moment, it could do in the future, so there's a conflict in your global namespace.

Really you should just do `std::cin` instead of using the global namespace, it also adds clarity to code and makes it easier to read.

However, I get the impression from Silent Kane that he doesn't like the std namespace itself, rather than what I just posted.

---

---

Subject: Re: Need help with my C++ code  
Posted by [Sir Kane](#) on Fri, 25 Mar 2011 15:16:24 GMT  
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---

There are nice functions like `scanf` and `printf` that don't suck dick like `std::` does.

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Subject: Re: Need help with my C++ code  
Posted by [\\_SSnipe\\_](#) on Fri, 25 Mar 2011 16:42:33 GMT  
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Thanks guys, but maybe you guys can clarify something for me.

I am still confused between the difference of a call-by-value

example, `void something(int a, int b)`

compared to a call-by-reference (&)

example, `void something(int& a, int& b)`

the book sucks at explaining it.

---

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Subject: Re: Need help with my C++ code  
Posted by [Omar007](#) on Fri, 25 Mar 2011 21:30:34 GMT  
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---

I'm not a C++ master nor am I writing this down with any reference. This is from the top of my head so it may contain faulty information.

---

A call by value makes a duplicate and does not affect the original.  
Call by reference modifies the original value you pass.

#### Call by value

```
void main()
{
    int a = 10;
    somefunction(a);
    cout << a; //10
}
```

```
void somefunction(int a)
{
    a = 20;
}
```

#### Call by reference

```
void main()
{
    int a = 10;
    somefunction(a);
    cout << a; //20
}
```

```
void somefunction(int& a)
{
    a = 20;
}
```

---

Subject: Re: Need help with my C++ code  
Posted by [\\_SSnipe\\_](#) on Sat, 26 Mar 2011 18:32:04 GMT  
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---

Omar007 wrote on Fri, 25 March 2011 14:30 I'm not a C++ master nor am I writing this down with any reference. This is from the top of my head so it may contain faulty information.

---

A call by value makes a duplicate and does not affect the original.  
Call by reference modifies the original value you pass.

#### Call by value

```
void main()
{
    int a = 10;
    somefunction(a);
    cout << a; //10
}
```

```
void somefunction(int a)
{
    a = 20;
}
```

Call by reference

```
void main()
{
    int a = 10;
    somefunction(a);
    cout << a; //20
}
```

```
void somefunction(int& a)
{
    a = 20;
}
```

See, that makes much more sense, thanks

Another problem I am having is I am lost on the difference between a functions formal parameters and arguments

---

---

Subject: Re: Need help with my C++ code  
Posted by [Omar007](#) on Sun, 27 Mar 2011 00:31:06 GMT  
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---

AFAIK 'arguments' is the same as 'actual parameters' so I'll be using that in my story

Formal parameters are the parameters you define in your function prototype or definition.  
Actual parameters are the parameters you supply to the function.

For instance:

```
void someFunction(int a); //'a' is a formal parameter
```

```
void main()  
{  
    int a = 1;  
    someFunction(a); //'a' is a actual parameter  
}
```

When an actual parameter is of a lower type (eg the formal parameter is a long and the actual parameter an int) it will be automatically converted.  
The other way around requires you to typecast

---