

University of Massachusetts Dartmouth
Department of Electrical and Computer Engineering

ECE 160
Lab 2

Name: coin.cpp
Due: see <http://ece160.org>

The main purpose of this program is to insure that you are able to run the MS Visual Studio environment, and submit programs, and to give me some basic information about yourself.

```
// You do not need to retype the questions, just answer them.
// 1. What is your name? (for example, Donna Noble)
// 2. How do you phonetically spell your name? (Don-A No-bel)
// 3. If you have a nickname, what is it?
// 4. What (if any) programming courses have you taken previously?
// 5. What programming languages do you know?
// 6. What do you hope to get out of this course?

// I, <put your own name here>, certify that this is my
// own work and I have not collaborated with anyone else.
// date: mm/dd/yyyy

#define _CRT_SECURE_NO_WARNINGS
#include <stdio.h>
int main(void)
{
    int pennies, nickels;    // input - count of each coin type
    int dimes, quarters;    // input - count of each coin type
    int dollars;            // input - count of each coin type
    int change;             // output - change amount
    int total_dollars;      // output - dollar amount
    int total_cents;        // total cents may be > 100

    // get number of each kind of coin
    printf("Number of $ coins: ");
    scanf("%d",&dollars);
    printf("Number of quarters: ");
    scanf("%d",&quarters);
    printf("Number of dimes: ");
    scanf("%d",&dimes);
    printf("Number of nickels: ");
    scanf("%d",&nickels);
    printf("Number of pennies: ");
    scanf("%d",&pennies);

    // compute total value in cents
    total_cents = 100*dollars + 25*quarters + 10*dimes
                + 5*nickels + pennies;

    // find the value in terms of dollars and change
    total_dollars = total_cents / 100; // int division
    change = total_cents % 100;       // mod (remainder)

    // display credit slip with value in dollars and change
    printf("\nCredit:\nDollars: %d\nChange: %d cents\n",
           total_dollars, change);

    return 0;
}
```

Enter this program, and insure it runs. Then submit the program according to the instructions given.

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Notes on obtaining visual studio

Any student at UMass Dartmouth may obtain a fully functioning legal copy of Visual Studio 2013 (as well as some other software). You may go to <http://www.dreamspark.com>, register (using your umassd.edu email), and then you should be able to download an image of a DVD. You may burn this to a physical DVD or use software such as Virtual Clone Drive (freeware at <http://www.slysoft.com/en/virtual-clonedrive.html>) to mount the image. About the third week of the semester, you will also get an email from ELMS which will give you access to even more Microsoft software that you may download/use.

Notes on virtual computers

CITS provides "virtual computers" in a couple of different configurations. See the website:

<http://www.umassd.edu/engineering/ece/resources/currentstudents/windowsremoteaccess/>
for more information. For work in ECE 160, select "Engineering Lab".

Mapping a drive to your local computer (may not work, must vpn to umd)

From a command window type:

```
net use M: \\134.88.53.58\class  
(on same line) /user:umdar\youruser *
```

```
net use Z: \\vnx-cifs\coefs\eng\shared\youruser  
(on same line) /user:youruser@umdar.umassd.edu *
```

Notes on copying project to and from your own computer

1. When Visual Studio creates a project, it includes about a dozen files in addition to your source code file (the .cpp file).
2. If you wish to move files (for example via a USB stick/thumb drive) you should copy the entire project directory. The project directory on the lab machines is under the Z:\visual studio 2013\Projects. If you have created the hello project, then there will be a folder My Documents\visual studio 2013\Project\hello. You should copy the entire hello folder onto your thumb drive or other device.
3. On your own machine (after Visual Studio 2013 is installed), you will also have My Documents\visual studio 2013\Project directory. This is where you should place the hello folder from your thumb drive. Note that if you already had a home folder on your C: drive, this will overwrite the existing folder.
4. To move a copy of a project from your own machine to the lab machines, just reverse the process.