CIS 150 – Lab 02

**Submission of Your Work**

You need to prepare and submit ONE SINGLE MS Word document that contains only:

* Your NAME
* For each question:
  + Specify the question number.
  + After reading the question requirements, but before beginning any coding, create the test case table below and specify the test cases you will use. Write your program then complete the **test table** with actual output results and include in your report.
  + Paste in a snippet of output showing results for **every listed test case**, labeled with test case #

Test Table:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test # | Valid / Invalid Data | Description of test | Input Value | Actual Output | Test Pass / Fail |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
| 4 |  |  |  |  |  |

* Provide a minimum of 4 test cases
* Add / delete rows as necessary
* Modify column widths as necessary
* Test both valid and invalid input
* Test for every output expected
* If failure is an expected output and it happens then that test Passes
* Any test that fails means the program must be fixed so that it passes the test

### **Question 1:**

Create a new project. Copy and paste the program coins.cpp (given below). Compile your project and fix any errors found during the compilation process.

// coins.cpp

// From Ch2 of Big C++

// Takes number of different coins as input, computes, and prints total dollar value

#include <iostream>

using namespace std;

const double PENNY\_VALUE = 0.01;

const double NICKEL\_VALUE = 0.05;

const double DIME\_VALUE = 0.10;

const double QUARTER\_VALUE = 0.25;

int main()

{

// declaring variables corresponding to the number of different types of coins

int pennies, nickels, dimes, quarters, dollars;

double total=0.0;

cout << "How many pennies do you have? ";

cin >> pennies;

// update total now

total = total + pennies \* PENNY\_VALUE;

cout << "Current total is " << total << endl

cout << "How many nickels do you have? ";

cin >> nickels;

// update total now

total = total + nickels \* NICKEL\_VALUE ;

cout << "Current total is " << total << endl;

cout << "How many dimes do you have? ";

cin >> dimes;

// update total now

total = total + dimes \* DIME\_VALUE ;

cout << "Current total is " << total << endl;

cout << "How many quarters do you have? ";

cin >> quarters

// update total now

total = total + quarters \* QUARTER\_VALUE;

cout << "Current total is " << total << endl;

cout << "How many dollar coins do you have? ";

cin >> dollars;

// update total now

total = total + dollars ;

cout << "Current total is " << total << endl;

// Total value of the coins

cout << "Total value = " << total << "\n";

return 0;

}

### **Question 2:**

The following program prompts the user for two integers and displays the sum of the two integers. Complete the missing statements/lines.

Compile your project and fix any error during the compilation process.

…………………… // put here header comments that give information about the program

……………………. // put here the compiler directive for the library necessary for reading and writing

using namespace std;

int main()

{

……………………. // declare three variables of type int

……………………. // display a message asking the user to enter a first integer

………………….... // get a value from the user

……………………. // display a message asking the user to enter a second integer

………………….... // get a value from the user

…………………… // add the two input values and assign to 3rd variable as total

……………………. // display the message

// “The sum of the two integers is: “ and display the answer

system(“pause”);

return 0;

}