Modified 01 09 2020

FLORIDA INTERNATIONAL UNIVERSITY



***TUTORIAL ON using C compiler capability from MICROSOFT VISUAL STUDIO C++***

 EEL 2880 Software Engineering Techniques: SPRING 2020

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 *[ download visual studio express from www.microsoft.com]*

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1) To start the Microsoft Visual C++ compiler, click the **Start** button on the task bar to open the start menu. Open the Programs menu ( All Programs in Windows XP/7) and select Microsoft Visual C++. In the menu bar, click **File >>>New >>Project .** Select  **General>> Empty Project**.Give a project name.

2) Alternatively , Select **New** from the **File Menu**. When the New Project dialog box opens, enter the following information :Select **Win32/64 Console Application** .Enter the project name in the **Project Name textbox**

3) The application provides a default location for saving projects or you can select your own location by pressing the button to the right of the location textbox to open the Choose Directory dialog box. Press the **OK** button after entering the required information into the dialog box. When the

Win32 Console Application wizard appears, select an **Empty Project.** and then press the **Finish Button**.When the **New Project** Information dialog box appears, select **OK.**

4) Add a blank source code file to your project by selecting **New** from the **File menu**. When the New file dialog box appears, select **C++ Source File (.cpp**) by default for C++ programs. . However, for C programs. type the file name with extension .c [example myprogram.c] into the **File Name textbox** and press the **OK** button. In that new file you can now type your desired program code.

5) Before you can execute the program you have written, you must save it and compile it. To save the file, select Save from the File menu. Once the program is saved, you compile it by selecting the Compile option from the **Build menu (Ctrl+F7).** You can do it by right clicking the source file. Please note that without building solution , your program will not run.

6) To run the program without Debugging select **Debug>>> Start Without Debugging or Ctrl+F5. You can go to Tools>> Customize** to add commands manually. Once the program compiles, the results will be shown in the Output Window.

After successfully compiling the program, the next step is to take the compiled object code and build the executable file necessary to run the program. In Microsoft Visual C++ IDE, this is accomplished by selecting the Build option from the Build menu.

7) After the build process has been successfully completed, you can now execute the program by selecting Execute from the **Build menu**

8) The program results will appear in a new DOS window. Notice that the phrase **“Press**

**any key to continue”** has been added to the program output. This additional code was

added to keep the DOS window open until you have had a chance to view the output and press a key on the keyboard. Once a key on the keyboard is pressed, the program stops execution and the DOS window closes.

9) Often, the program will have run time errors when you attempt to compile, build, and execute it.When the modified program is compiled, an error is displayed in the output window. You can do it by **Debug>>** **Start Debugging (F5**). Please note that during debugging the program will show and close the console display immediately . To see the console display you must run without de-bugging .

10) You can determine where the compiler found the error by double-clicking on the error message in the output window. This will cause a pointer to appear in the left margin of the source file where the error was encountered.

 **## One Worked Out Example :**

***Write a functional program code in -C- and compile with Microsoft visual studio, which will show sum of all odd and even integer 1 to m, where m is an integer*** ***inputted by user:***

//01 14 2020: Spring 2020: Subbarao: Ref Chp 4, problem 4.12 Deitel

//demonstration of for loop, even and odd numbers

#include <stdio.h>

#include <math.h>

int main( void )

 {

 unsigned int i; // counter to count numbers

 unsigned int m; // enter final number

 unsigned int esum = 0, osum = 0; //sum of even and odd integers esum, osum initially

 printf(" enter a final value for the number m: \a\t");

 scanf ("%u", &m);

// loop through even integers up to m

 for ( i = 2; i <= m; i += 2 ) //increment by 2 to stay even boundaries

 {

 (esum += i); // add i to even sum esum

 (osum +=(i-1)); // adjusted i for odd numbers

 printf ("%u\t", (i-1)); //print odd integer value

 printf ("%u\t", i); //print even integer value

 } // end for loop

 printf( "\n\a Sum of the even integers from 0 to m is: %u\n", esum );

 printf( "\n\a Sum of the odd integers from 0 to m is: %u\n\n", osum );

 printf( "\n\a final value of loop variable i: %u\t", i );

 system ("PAUSE");// Windows command for keeping the display active

 return 0;

 } // end main program for\_while\_loops.c

 // Time Elapsed 00:00:06.58

 // Build: 1 succeeded, 0 failed, 0 up-to-date, 0 skipped ==========

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