

Practical # 01

Introduction to DEV C++ IDE

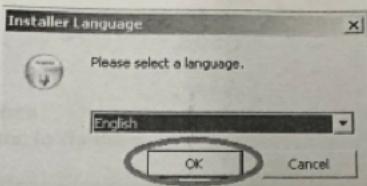
Objective: To understand the DEV C++ IDE(Integrated Development Environment) and implement a simple C Program.
Theory:

The Integrated Development Environment (IDE)

Dev-C++, developed by Bloodshed Software, is a fully featured graphical IDE (Integrated Development Environment), which is able to create Windows or console-based C/C++ programs using the MinGW compiler system. MinGW (Minimalist GNU* for Windows) uses GCC (the GNU g++ compiler collection), which is essentially the same compiler system that is in Cygwin (the unix environment program for Windows) and most versions of Linux.

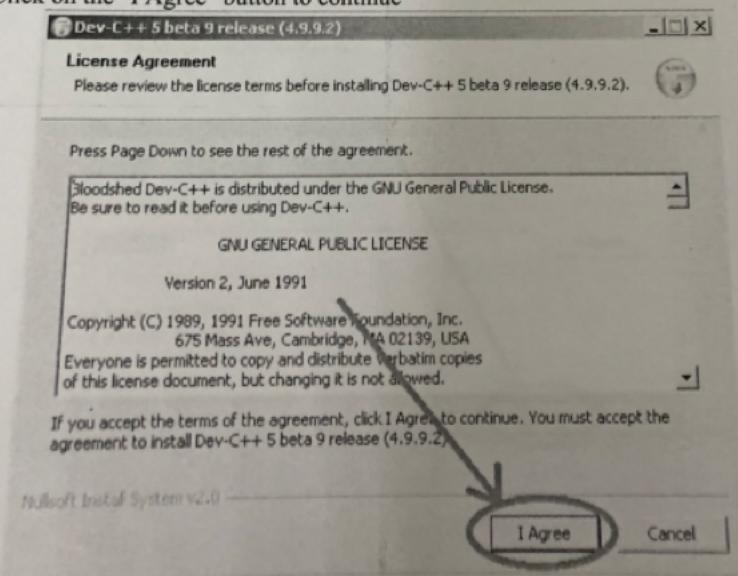
Installation Steps:

1. Download the installer from the internet. Follow the instructions and install the program. The following screenshots will help you install and run the product:



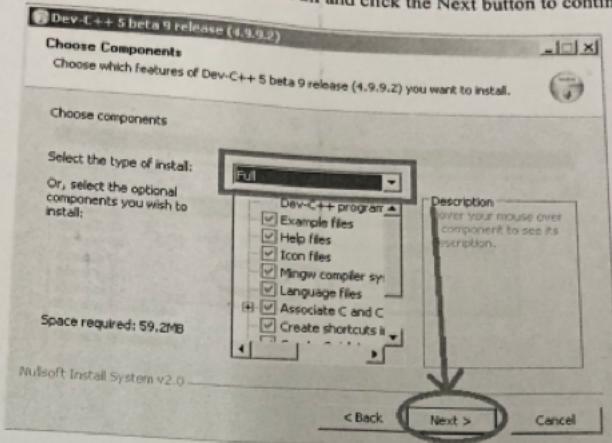
2. License Agreement

Click on the "I Agree" button to continue



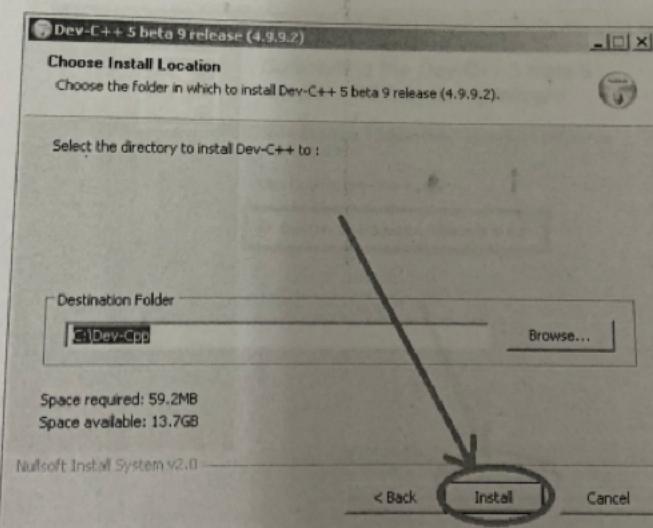
3. Choose Components

Make sure that the type of install is Full and click the Next button to continue

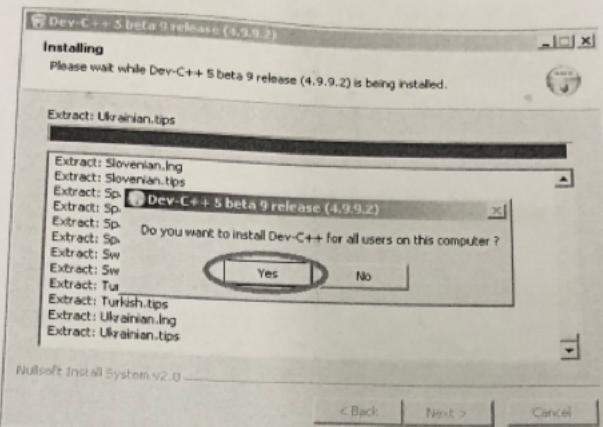


4. Choose Install Location

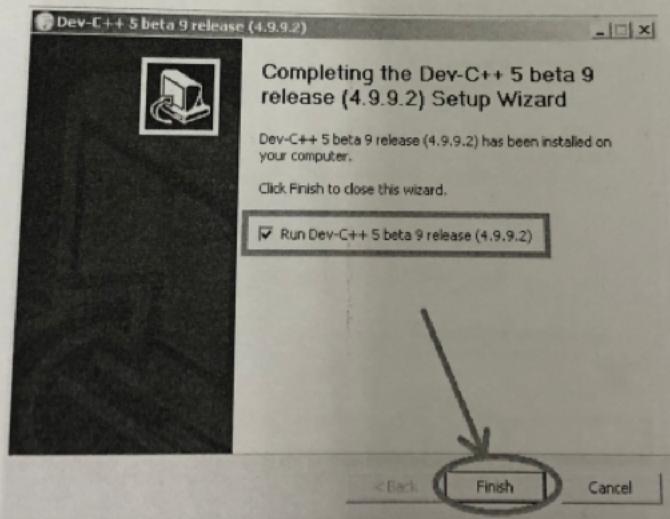
Click the Install button to continue



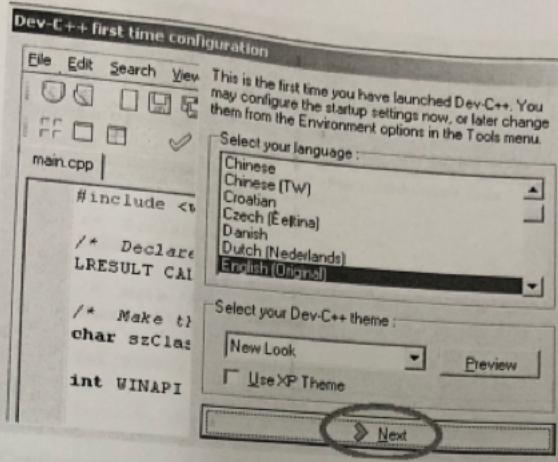
5. Installing
Click the Yes button



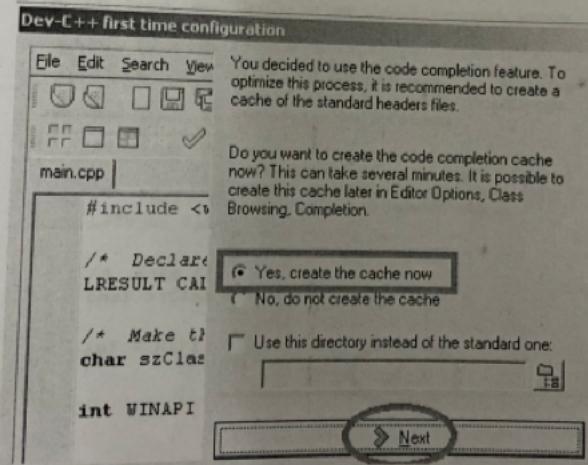
6. Finished
Click the Finish button to finalize the installation and run the program.



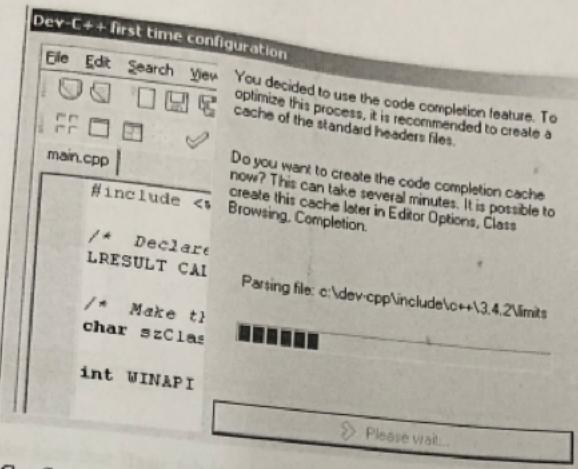
7. First Time Configuration
Click the Next button to continue



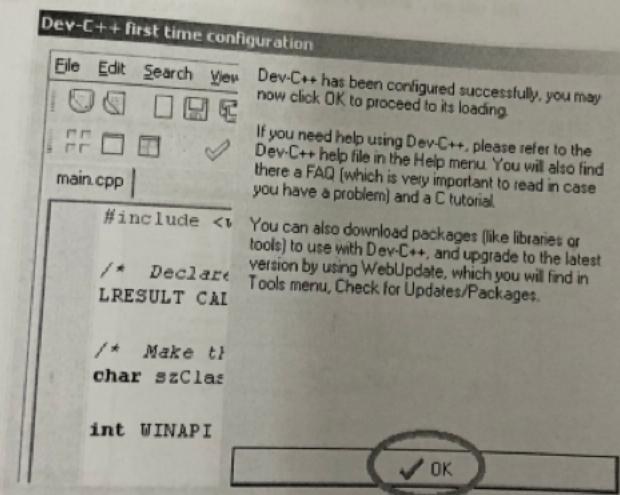
8. First Time Configuration
Click the Next button to continue



9. First Time Configuration
Wait for the Progress Bar to Complete

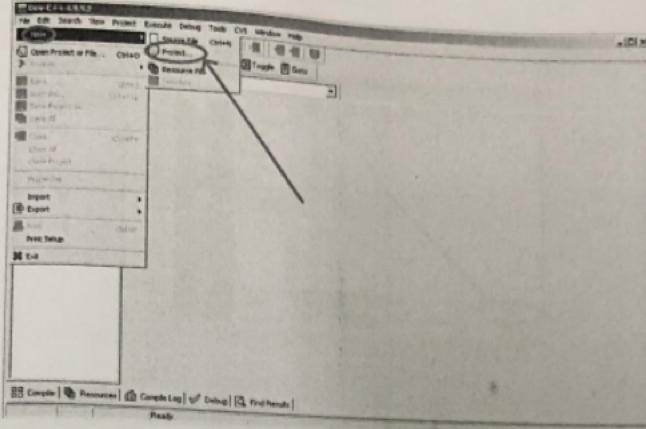


10. First Time Configuration
Click the OK button to Finalize



New Project Menu

Click the File menu, then select the New menu item and click the Project menu item.

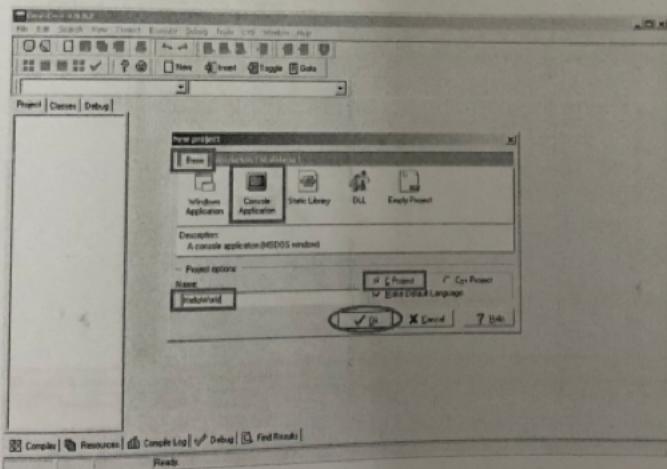


New Project

On the top, make sure that Basic tab is selected and under the Basic tab, select "Console Application"

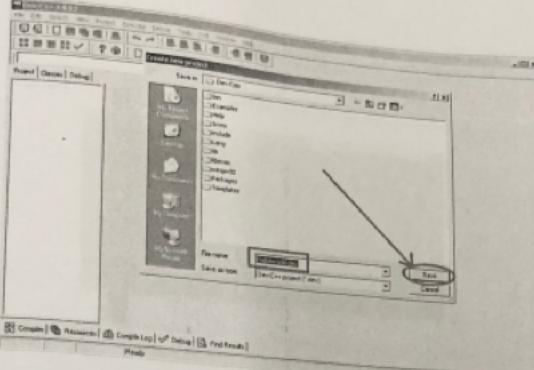
Give a name to your project using the Name text box, For instance, "Hello World".

Important: Choose "C Project" under "Project Options", on the left
Click the OK button to create your project



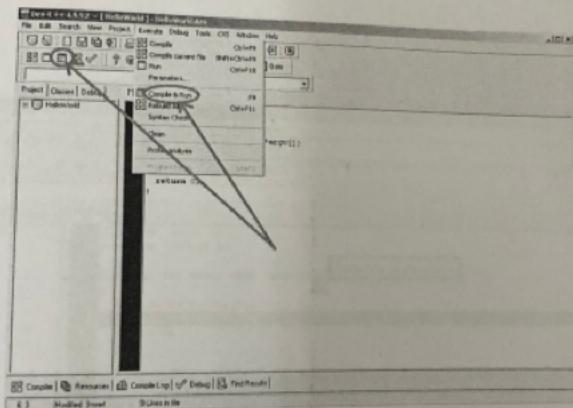
Create New Project

Give a name to your project file and click the Save button to continue



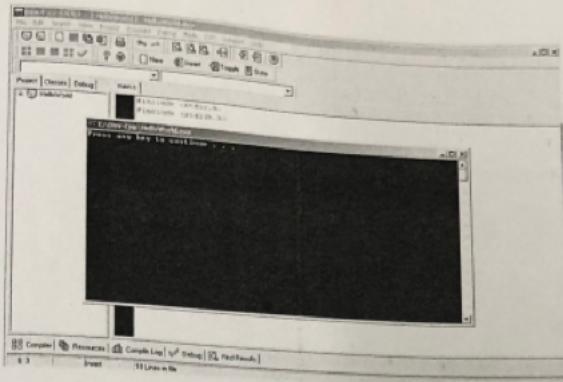
Compile & Run:

Click "Compile & Run" menu item or the icon displayed in the below screenshot or just Press F9 to compile and run your program.



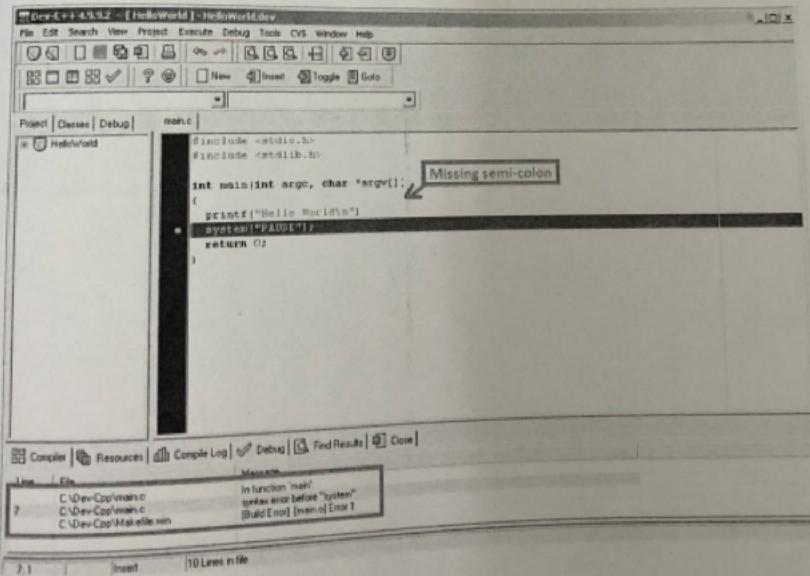
Running:

Assuming you did not make any syntax errors on your code, you should see a similar output window running your program.



Compile Failed

If you try to compile a code which has syntax errors, Compiler window lists the errors with their line numbers. You can double click the error and see the error highlighted in the code.



Review Questions/ Exercise:

1. Discuss the steps necessary to produce executable file?

- Step involved in execution are
- Creating the program
 - Compiling the program
 - Linking the program with functions that are needed from the C Library.
 - Executing the program

2. Discuss the purpose of Compiler & the file needed by compiler?

- Purpose:- The Compiler translates Source Code into assembly Code.

- Files needed:-
- A- Source Code File (.c,.cpp)
 - B- Header Files (.h,.hpp)
 - C- Library Files (.lib)

3. Discuss the linker & the file needed by the linker?

The Linker resolves external references, Combines object files and libraries.

- A- Object files (.obj)
- B- Library files (.lib)
- C- Header files (.h,.hpp).