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# Setting up Sublime Text for C++ Competitive Programming Environment

Difficulty Level : Medium • Last Updated : 01 Feb, 2022

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Note: The following steps assume a Windows OS environment.

Sublime Text is a text editor for coding. It has a smooth user interface and other exciting features. During the live contest, it is always favorable to [compile the program](#) in a local IDE instead of an [online IDE's](#).

In this article, we will discuss how to [set up a Sublime Text Editor](#) for [Competitive Programming in C++](#) how to create our own build system in the sublime text editor.

## [Install Sublime Text Editor:](#)

Download the setup file of Sublime Text from [here](#) and then install it.

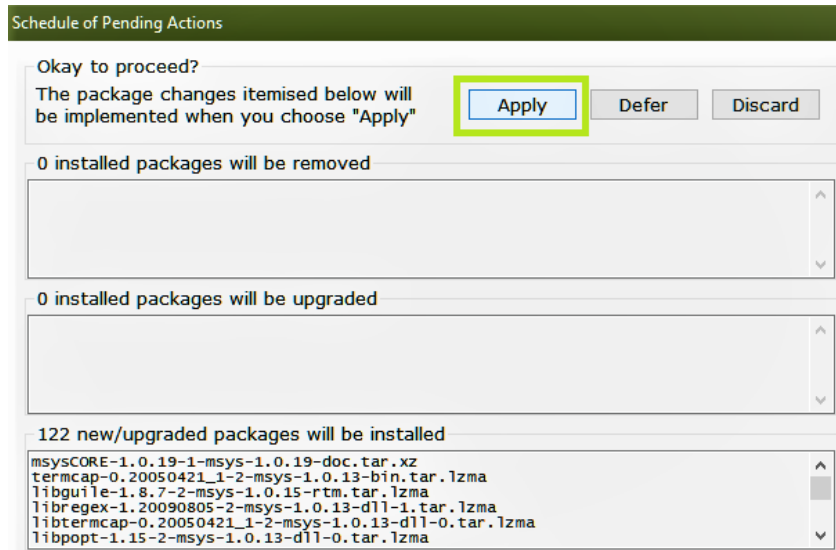
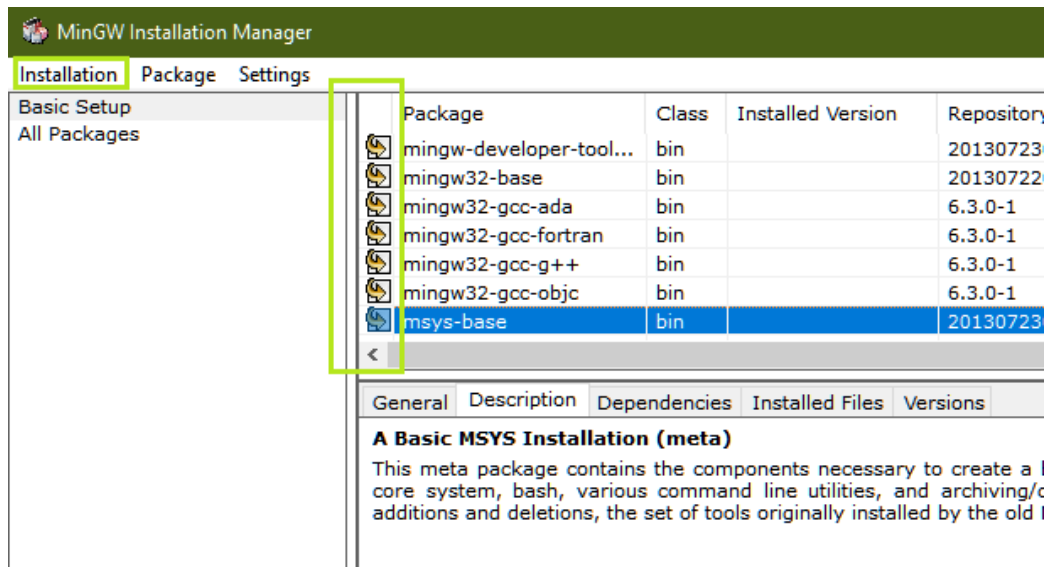


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**MinGW** is a native Windows port of the GNU Compiler Collection (GCC), with freely distributable import libraries and header files for building native Windows applications.

- Download the **MinGW** file from [here](#).
- Install all the Basic Setup of MinGW.
- Mark all the packages for installation.
- Click on the **Apply Changes** option under the **Installation** tab as shown below:



## Setting up the Environment

After completing the above steps, [GCC](#) is up and running. Now, the **Environment Variable's Path** is to be updated. Follow the below steps for the same:

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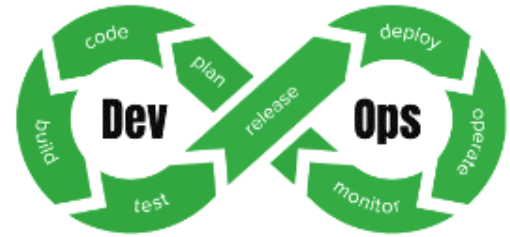
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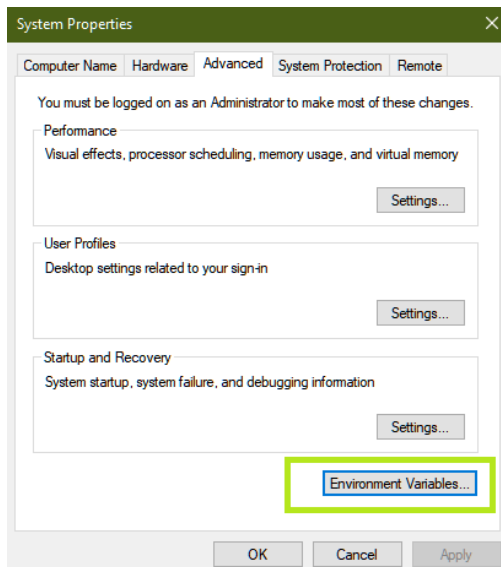
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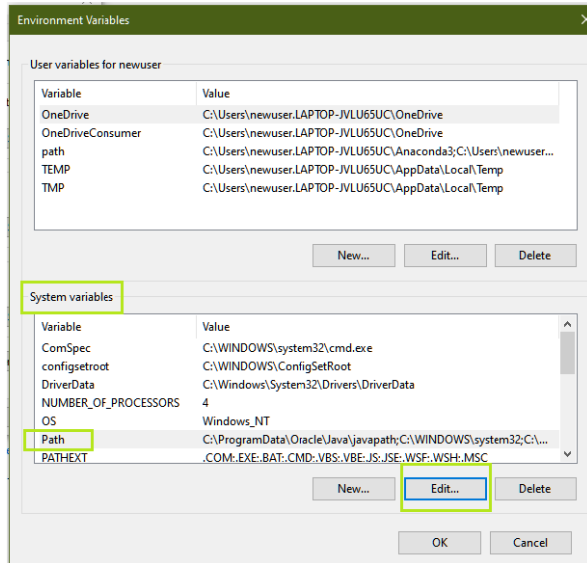


- Go to **My Computer**, then Right Click to get **Properties** > **Advanced System Settings** > **Environment Variables**.

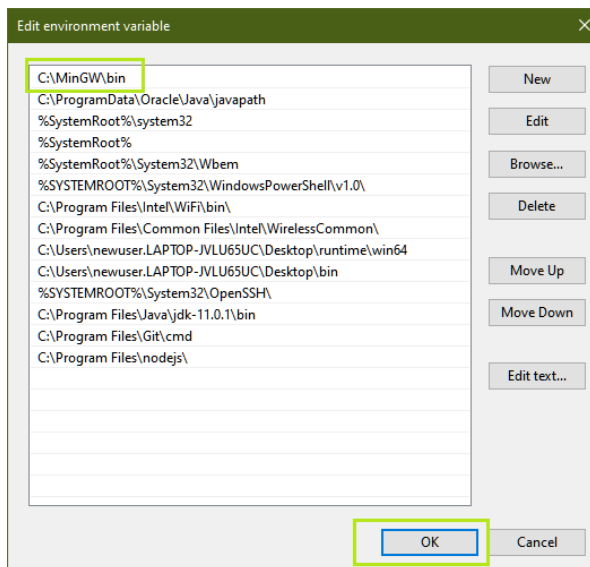


- Now under the **System Variables Tab**, look for **Path** > **Click on Path** > **Click on Edit** > **Click on New**.

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- Now locate the **bin** folder inside the MinGW installation folder in the C drive.
- Copy the path of the bin folder. By default, the path is: **C:\MinGW\bin**
- Paste this new path in the list and click **OK**.



Now Sublime Text is able to access **g++** from its terminal as the path variable has been updated.

## Creating a Build System

Sublime Text provides build systems to allow users to run external programs. Create a new build system for Sublime Text for setting up C++ compilation.

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- Name the file as **"CP.sublime-build"**.

```
{
    "cmd": ["g++.exe", "-std=c++17", "${file}",
           "-o", "${file_base_name}.exe",
           "&&", "${file_base_name}.exe<inputf.in>outputf.out"],
    "shell": true,
    "working_dir": "${file_path}",
    "selector": "source.cpp"
}
```

The above block of code is used for taking input from the file **"inputf.in"** and prints the output to **"outputf.out"**.

### Setting up the Window Layout

Create three new files as shown below and make sure all of them are in the same folder.

- **file.cpp**: The file for writing the code.
- **inputf.in**: The file where we will be giving the input.
- **outputf.out**: The file where the output will be displayed.

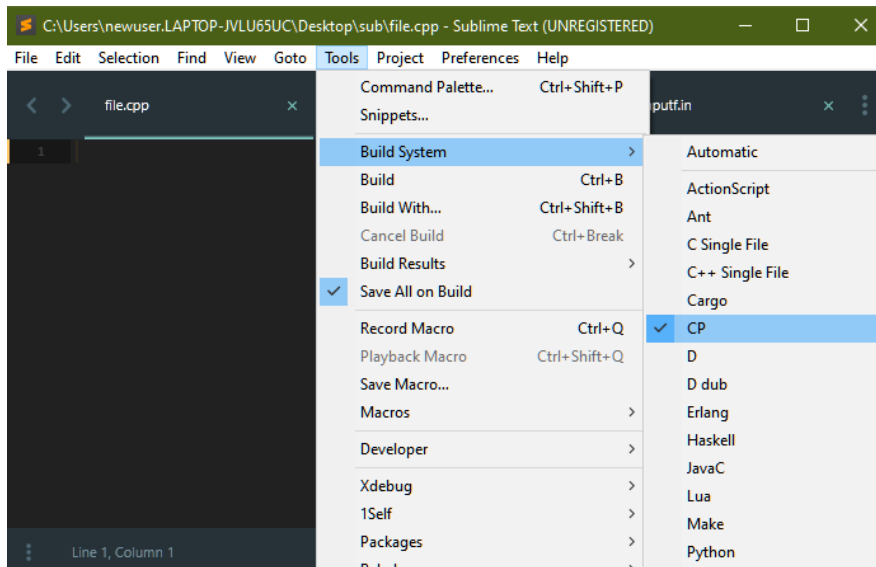
Now, perform the following steps:

- Select **View > Layout > Columns : 3**. This will create three columns in the workspace. Move the three files into three columns.
- Select **View > Groups > Max Columns : 2**.
- Select the build system we just created from **Tools > Build System > CP**.

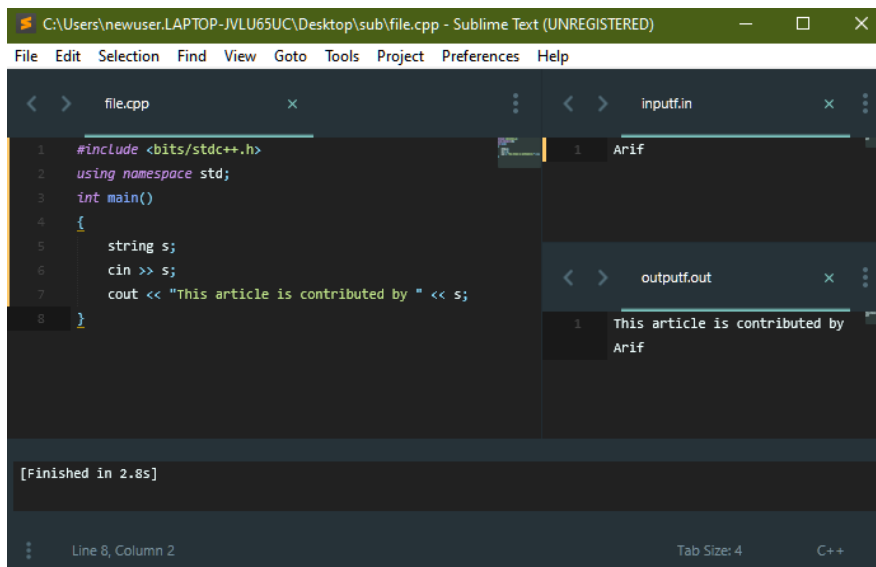
Below is the image to illustrate the same:



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## Ready for executing the programs:



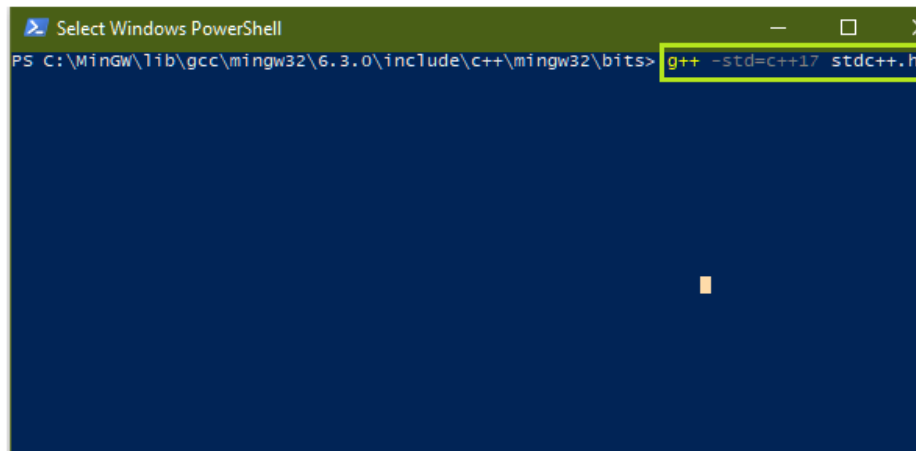
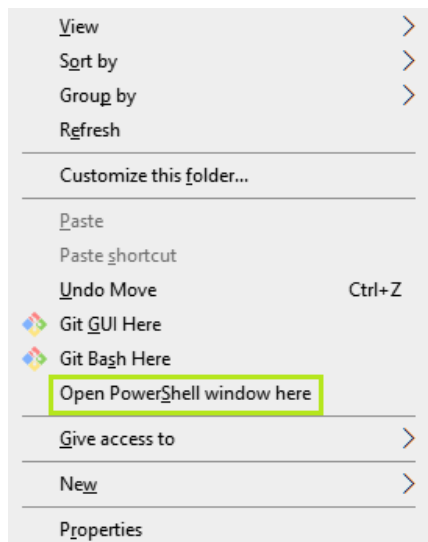
## Precompile Headers:

The compilation time can speed up by precompiling all the header files i.e., by precompiling the **bits/stdc++.h** [header file](#). Perform the following steps for doing so:

- Navigate to the [stdc++.h](#) file. By default, this file is located at:  
**"C:\MinGW\lib\gcc\mingw32\6.3.0\include\c++\mingw32\bits"**
- Open the Power shell or the command window on the current folder. For this right-click while pressing the Shift key.
- Run the below command to compile the header.

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`g++ stdc++.h -std=c++17`



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