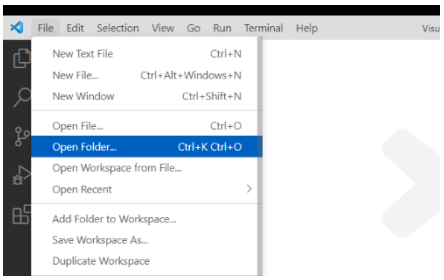
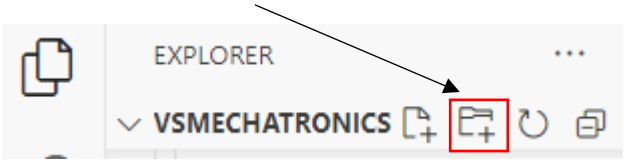
Quick Guide to Using VSCode

VSCode uses folders for storing code so think of a sensible structure for these to enable you to find your programs easily.

1. Open VSCode and then select **File->Open Folder.**

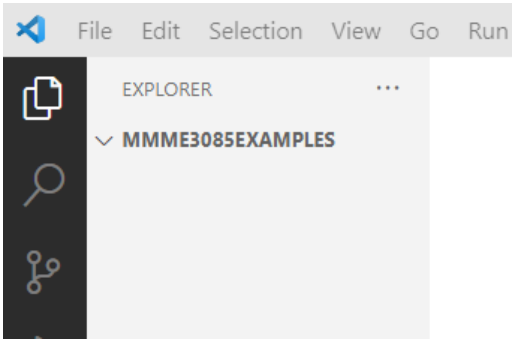


Either select an existing folder or create a new one using the New Folder icon.

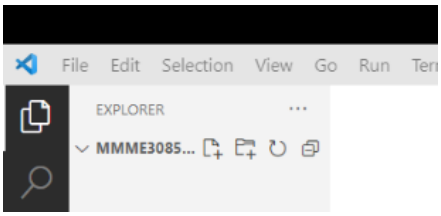


The selected folder will be shown in the window on the left. In this case a folder 'MMME3085Examples' has been selected.

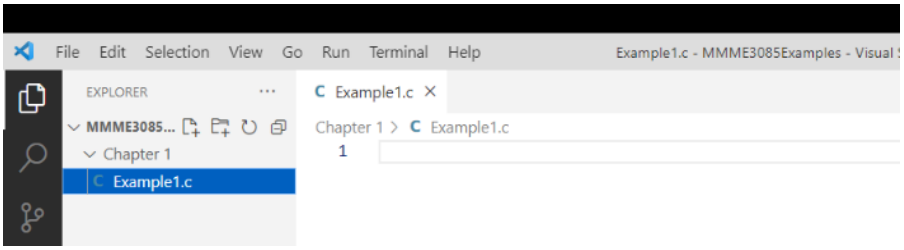
If there are any files in the folder these can be displayed using the down arrow at the left of the folder name.



2. Hover over the folder name with the cursor and icons will be displayed to open new files/folders. It might be a good idea to have a separate folder for each chapter in the exercises.



The icons can be used to create folders and new files within those folders. In this case a file called 'Example1.c' has been created. Make sure to use the '.c' file extension so that VSCode knows that it is a C file and knows how to compile accordingly.



3. Type the following into the Example1.c editor window:

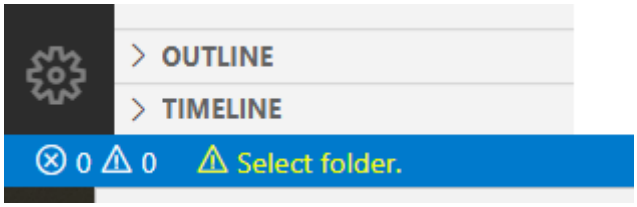
```
# include <stdio.h>

int main()
{
    printf("Hello World\n");
}
```

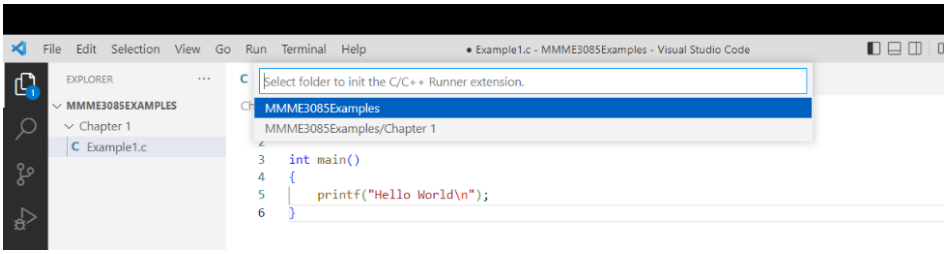
As you type you should see the intellisense giving suggestions of possible text.

4. The code now needs to be compiled in order to be able to run:

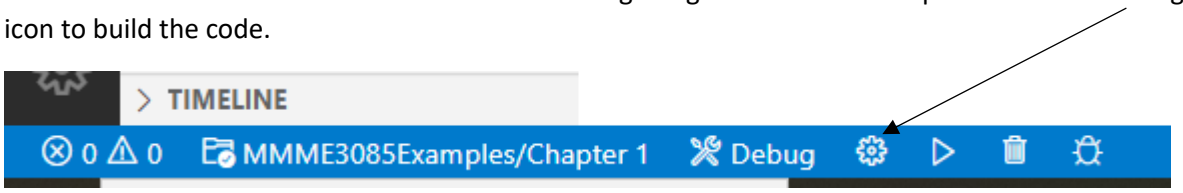
Select the 'Select folder' option from the toolbar at the bottom of the screen.



A dropdown box allows selection of the folder containing the code. In this case the 'Chapter 1' folder should be selected.



5. The toolbar at the bottom of the screen will change to give build and run options. Select the 'cog' icon to build the code.



You will see that a 'build' folder is created in the 'Chapter 1' folder. If you expand this you will see that this contains a '.o' file which is the compiled binary object file and the '.exe' file which is the final binary executable file created after linking the object file with any libraries (and other object files for more complex projects with more than one c file).

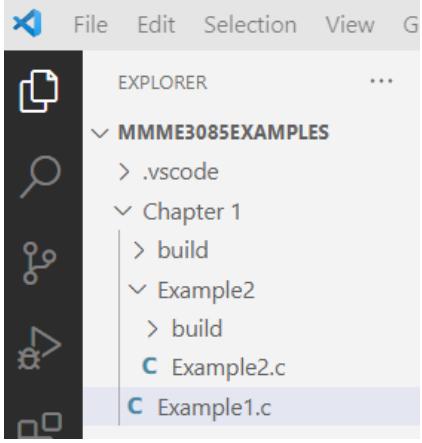
6. Select the arrow key to the right of the 'cog' key to run the program. You should see 'Hello World' appear in the terminal window at the bottom of th screen.

Congratulations! You have just created the classic C programming 'Hello World' program!

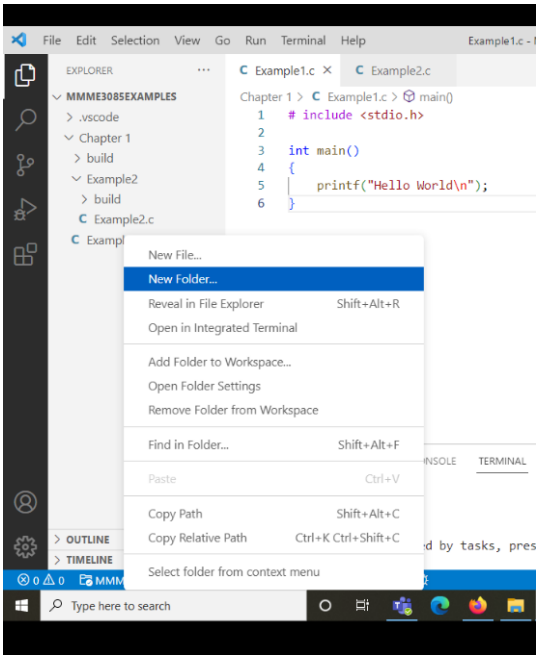
Adding a Second Program

A C program can only have one 'main()' function. To create a second program in VSCode it must be in a separate folder.

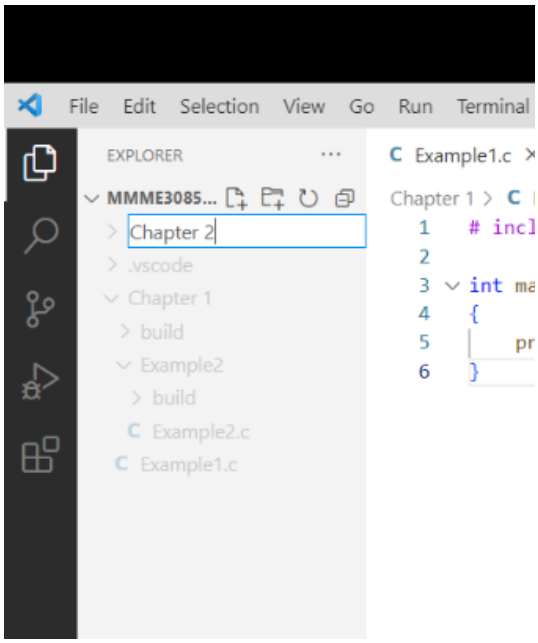
To create a subfolder, select the required folder and repeat the process from step 2. In the example on the right a subfolder 'Example2' has been created containing a file 'Example2.c'



To create a folder at the same level as the ‘Chapter 1’ folder, right click in the grey area below the folder structure and select ‘New folder’ from the drop down menu.



Type a new folder name in the space provided. A .c file can then be added and built as described earlier.



Note: To be able to successfully build and run the code in any folder there must only be one file with a main() function in that folder.