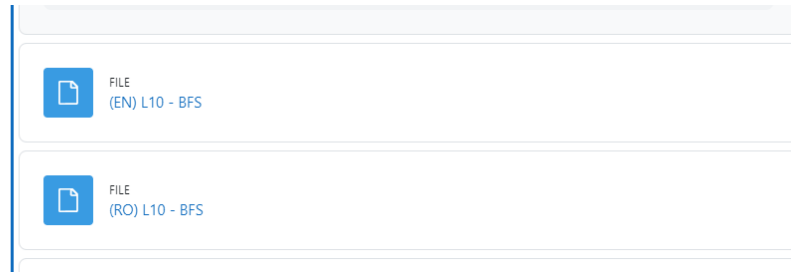


1 Assignment 9: Tutorial

1.1 Visual Studio Project Setup













1. Go to moodle and select one of the following:



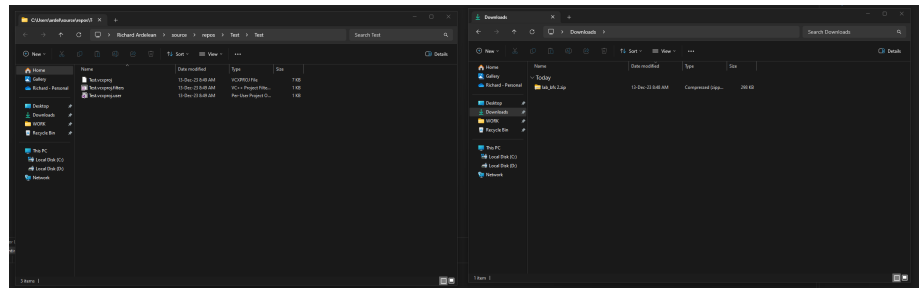
This will result in a '.zip' file being downloaded.

2. Create an Empty C++ Project and by right-clicking on the project (not the solution) you will be able to select 'Open Folder in File Explorer'.

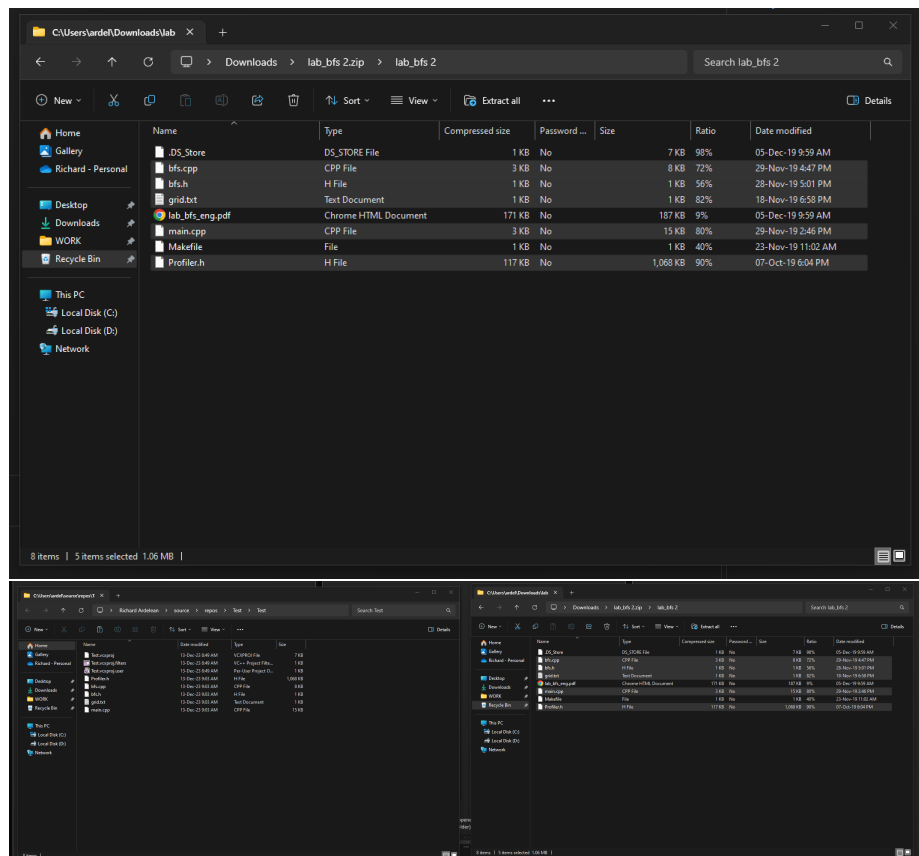
 Solution 'Test' (1 of 1 project)

-  Build
 - Run Build Insights ▶
 - Rebuild
 - Clean
 - View ▶
 - Analyze and Code Cleanup ▶
 - Project Only ▶
 - Retarget Projects
-  Collapse All Descendants Ctrl+ Left Arrow
 - Scope to This
-  New Solution Explorer View
 - Build Dependencies ▶
 - Add ▶
-  Class Wizard... Ctrl+Shift+X
-  Manage NuGet Packages...
-  Configure Startup Projects...
 - Set as Startup Project
 - Debug ▶
-  Cut Ctrl+X
-  Paste Ctrl+V
-  Remove Del
-  Rename F2
- Unload Project
- Load Direct Dependencies
- Load Entire Dependency Tree
- Rescan Solution 2
- Display Browsing Database Errors
- Clear Browsing Database Errors
-  Open Folder in File Explorer
-  Open in Terminal

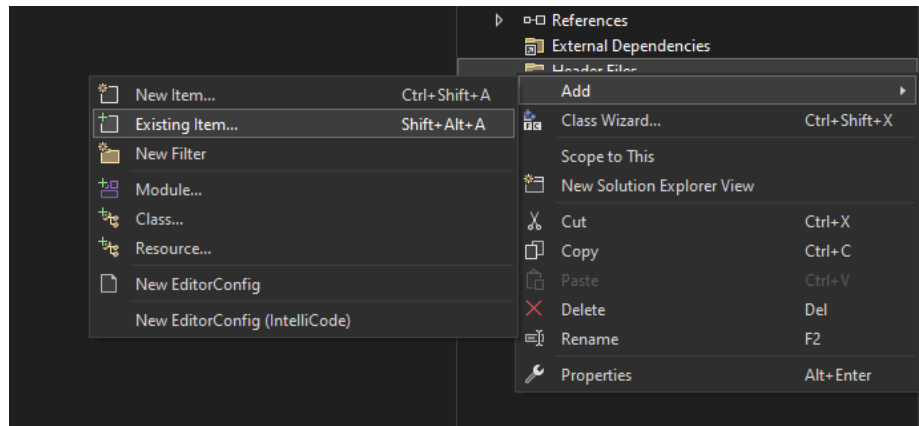
- At this point, a 'File Explorer' window will be opened. Open another 'File Explorer' with the location of your downloads (most likely the Downloads folder).



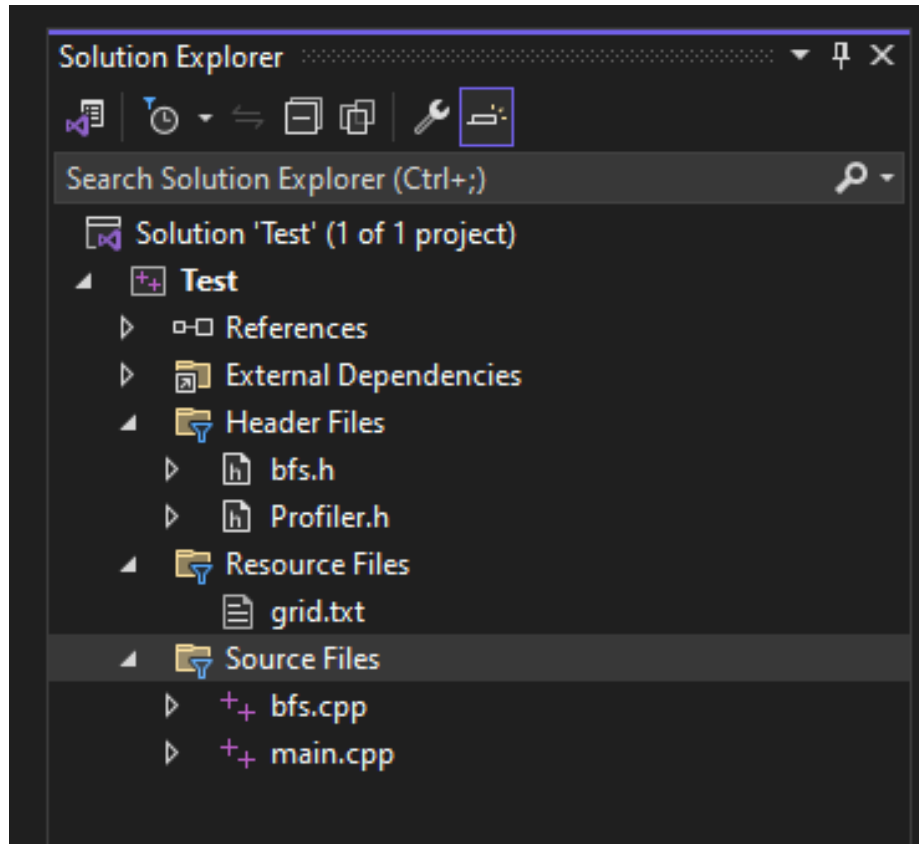
- Open the '.zip' file and copy as shown below the files from the zip file to the folder of the project.



- By selecting the folders from the Visual Studio Solution Explorer 'Header Files / Resources / Source Files' use the following options:

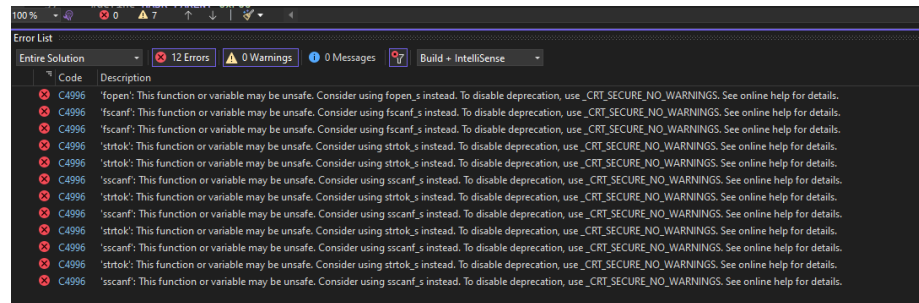


6. Such that, the following setup is accomplished:



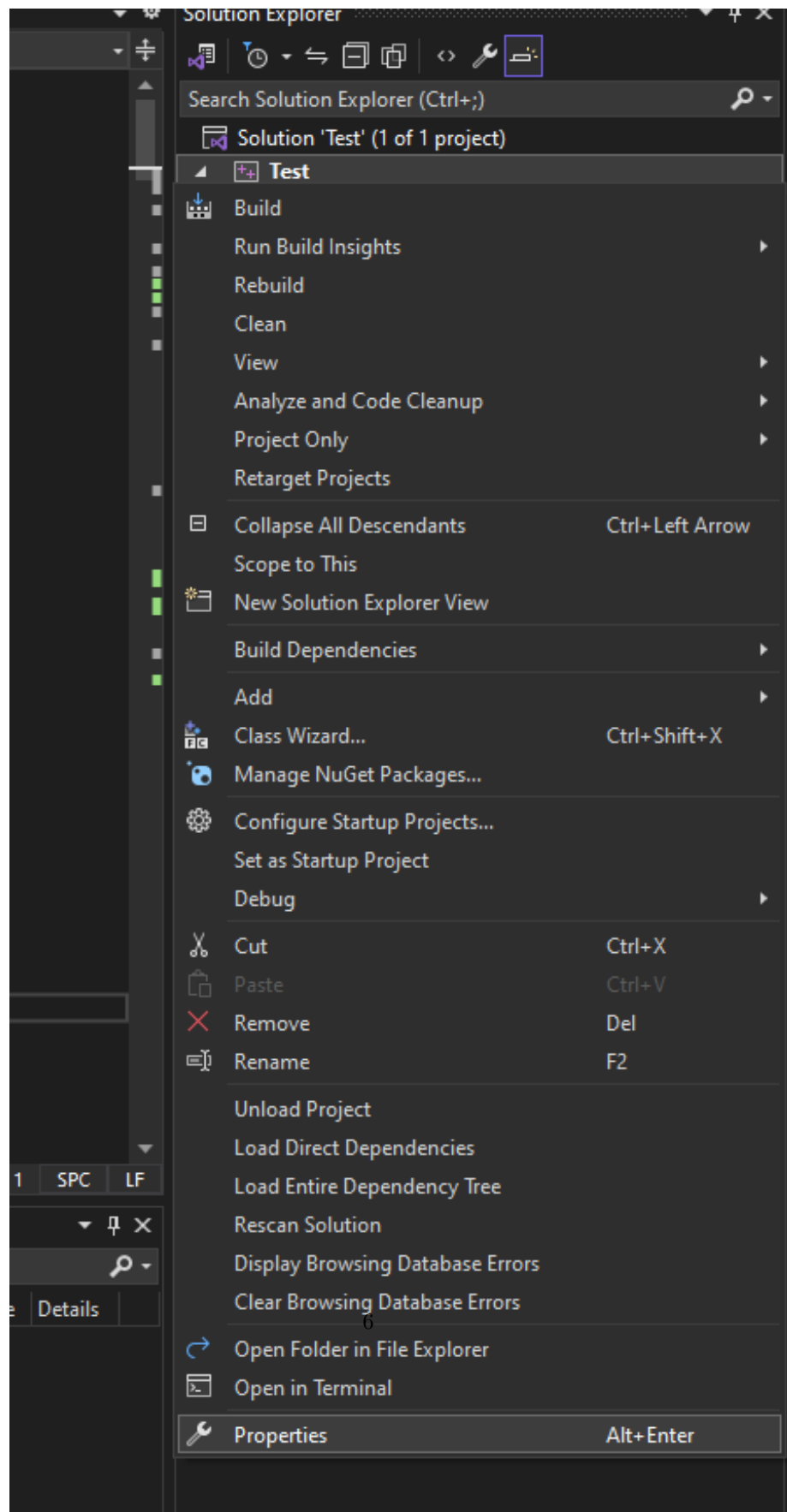
1.2 Visual Studio 'unsafe' error

Example:

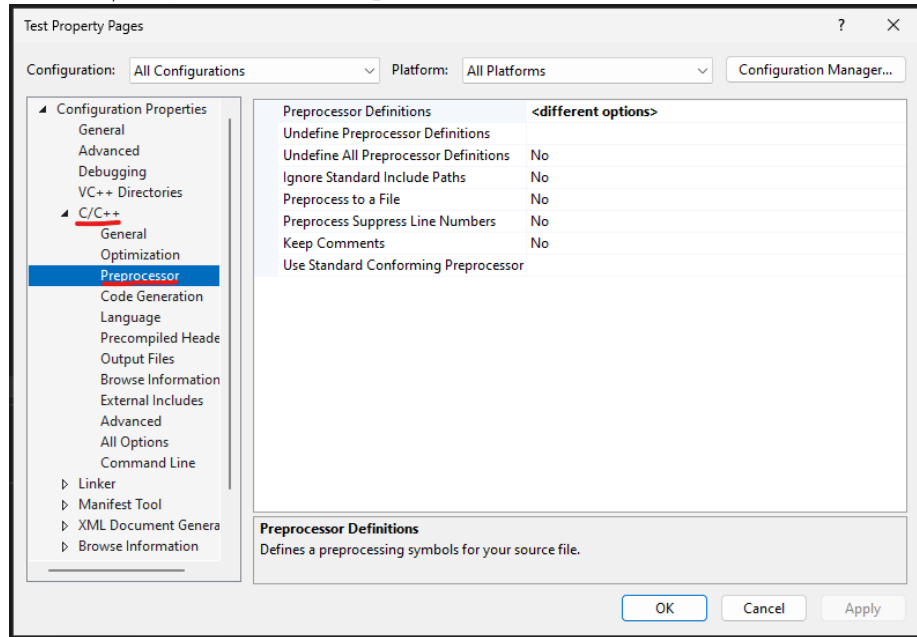


Solution:

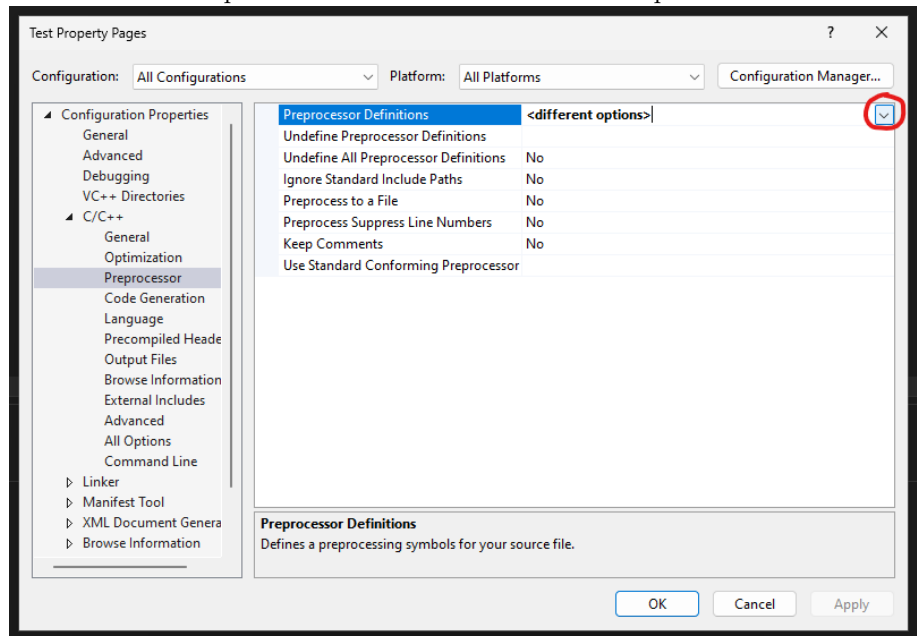
Right-click on the project (not the Solution which will most likely have the same name) and select 'Properties'.



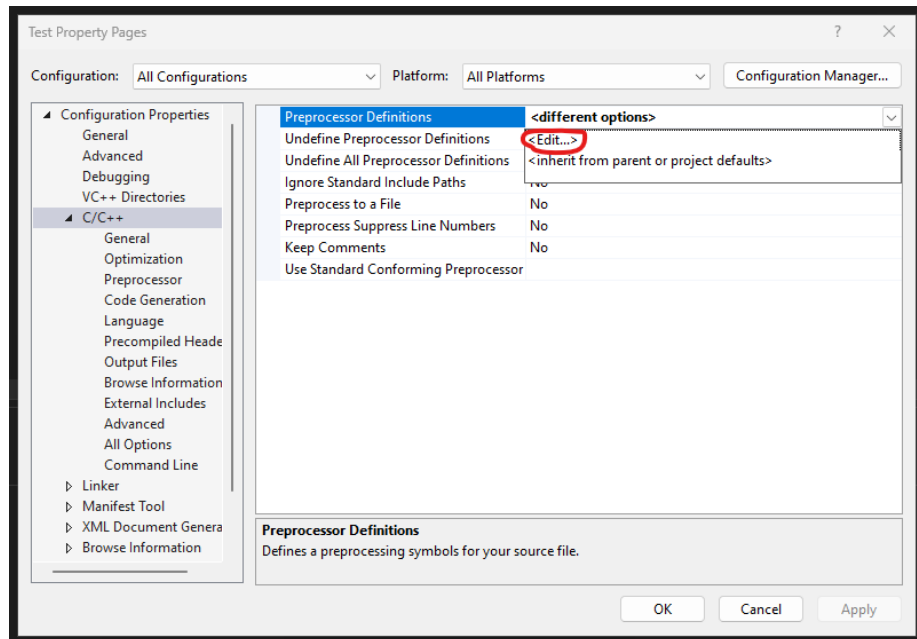
Update the 'Configuration' and 'Platform' in the upper side of the window to 'All Configurations' and 'All Platforms', respectively.
Go to 'C/C++' and select 'Preprocessor'.



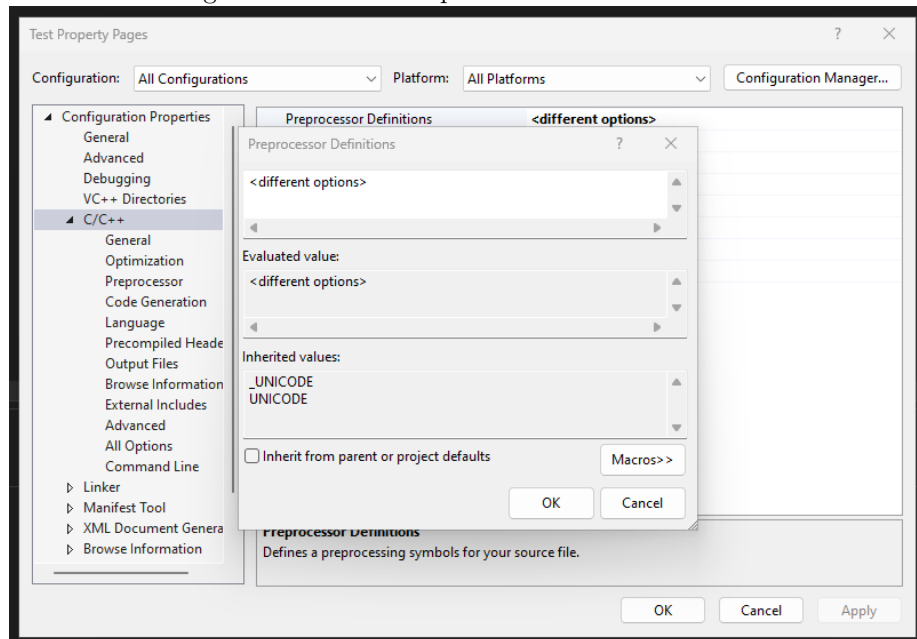
Then click on 'Preprocessor Definitions' and on the dropdown arrow.



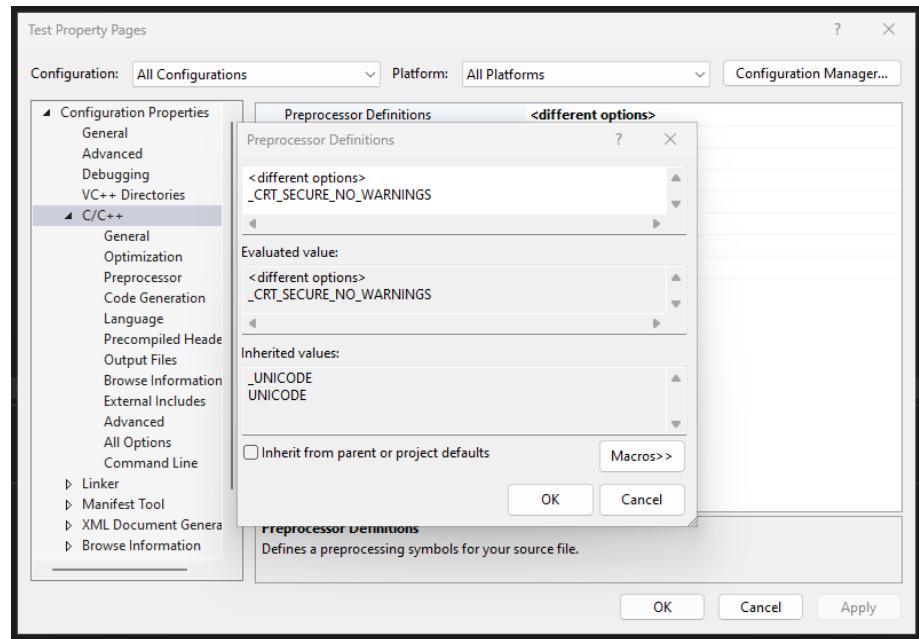
Select 'Edit'



And the following new window will open:



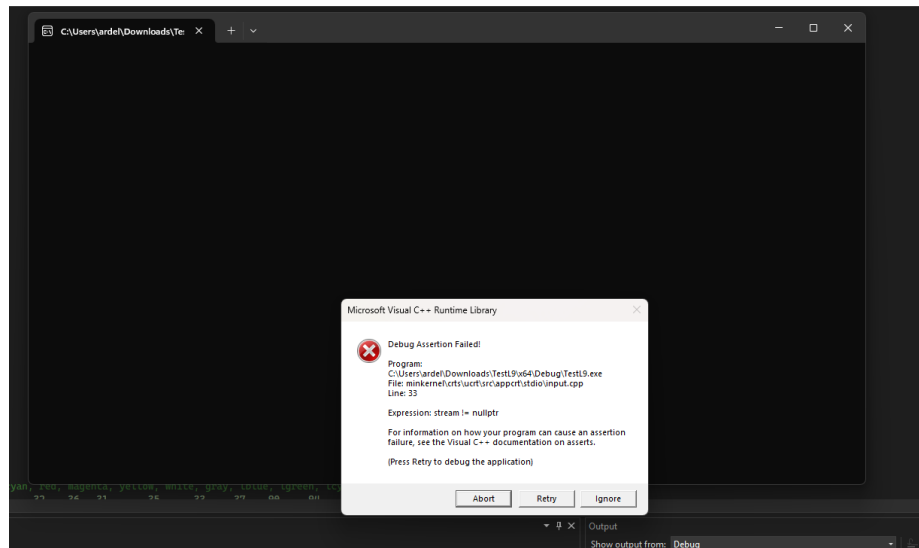
Introduce '`_CRT_SECURE_NO_WARNINGS`' under '<different options>' as shown below.



Click on 'OK' for all opened windows until you are returned to the main Visual Studio window of the project, and you will be able to run the project.

1.3 Visual Studio 'Assertion' Error

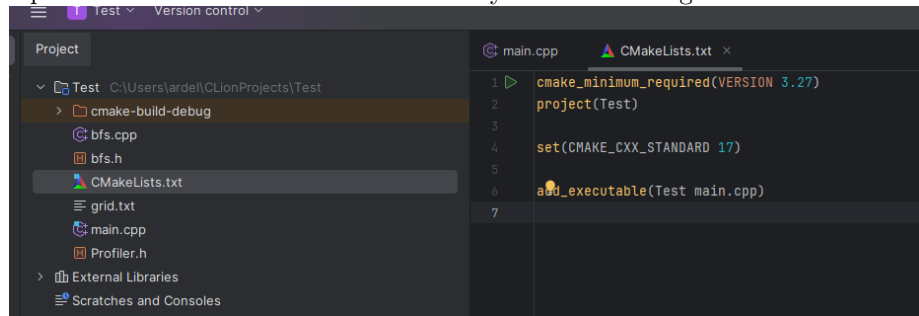
This indicates that you have not followed the tutorial. Go back to the first page and make sure that you have moved the files from the 'Downloads' folder to the 'Project' folder. You might also need to *remove* all the files from the Visual Studio IDE and *re-add* them by hand.



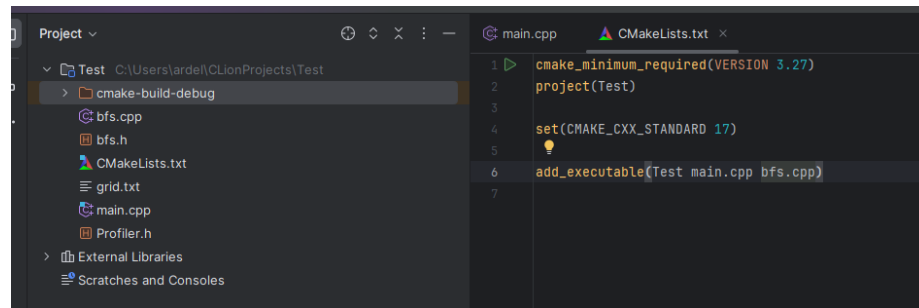
1.4 CLion undefined Error

Messages Build

Solution:

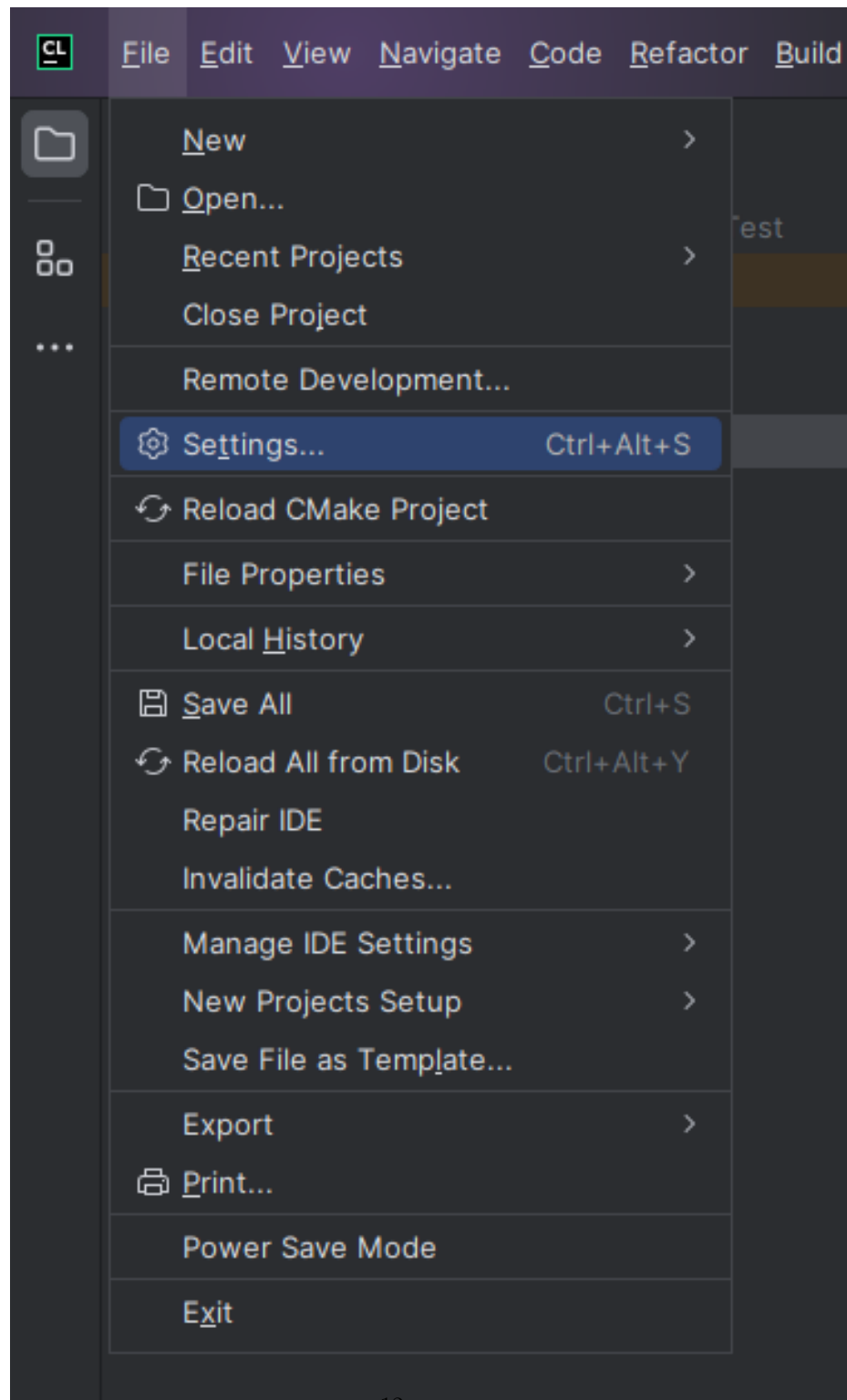


```
add_executable(Test main.cpp)
into
add_executable(Test main.cpp bfs.cpp)
```

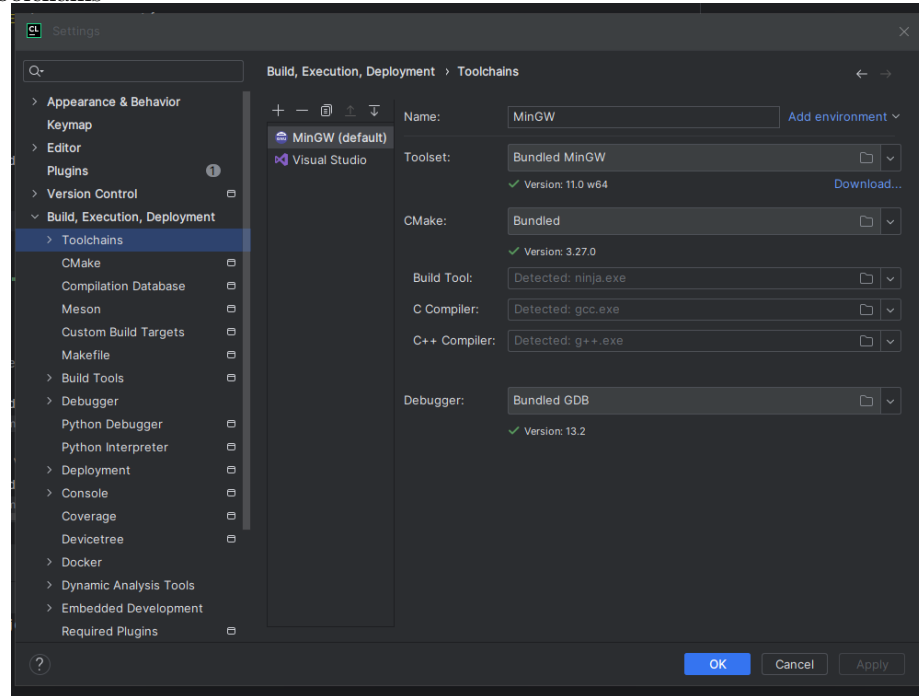


1.5 CLion Visual Studio – Option 1 (slower)

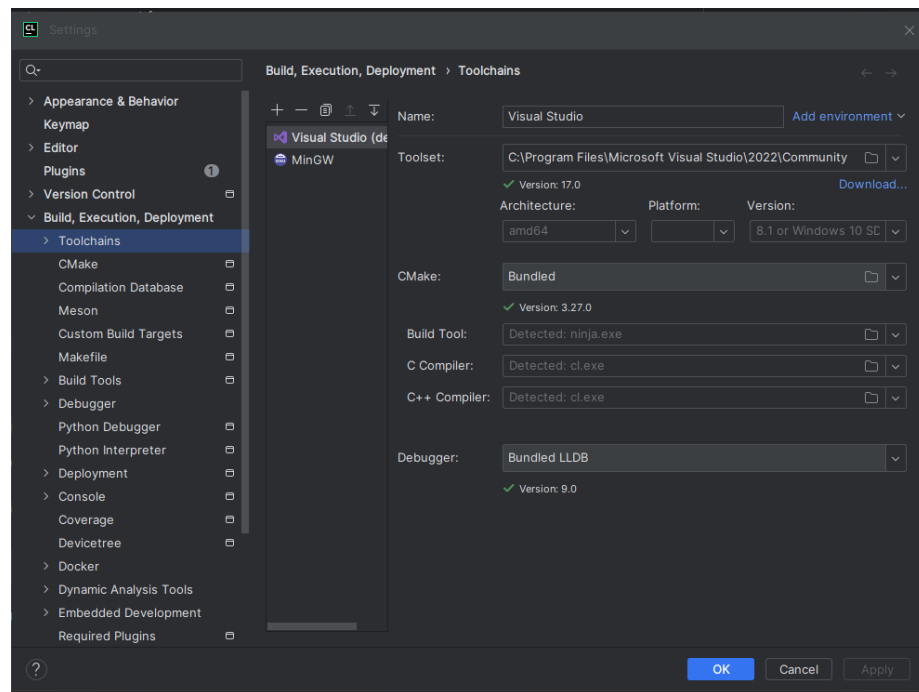
Go to File -> Settings:



In the newly opened window, go to 'Build, Execution, Deployment' -> 'Toolchains'



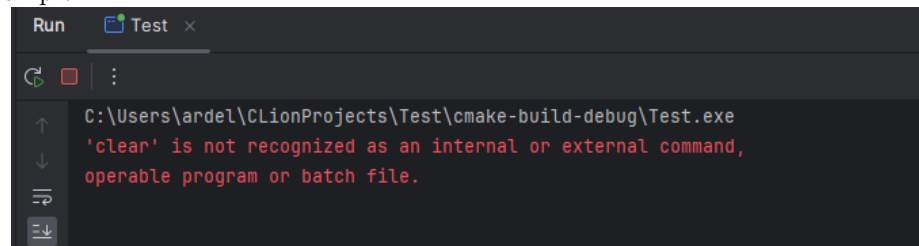
Using the arrows, move Visual Studio as default:



1.6 CLion MinGW – Option 2 (faster, requires external console)

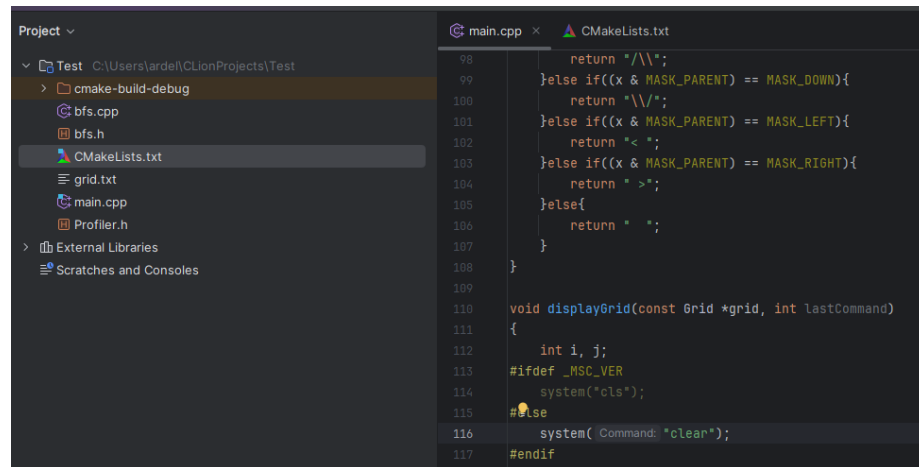
1.6.1 CLion Clear error

Example:



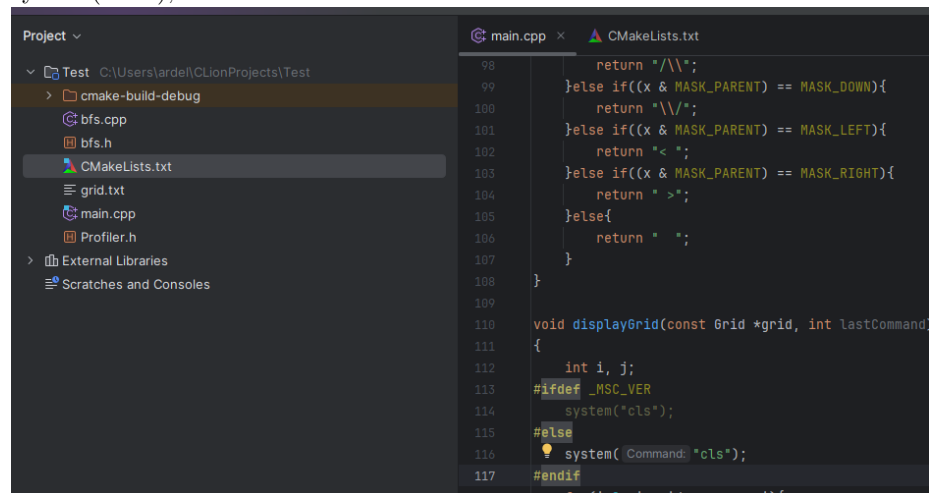
Solution:

Go to the main.cpp file and scroll to lines 113-117 in the displayGrid function.



```
98     return "/\\*";
99 }else if((x & MASK_PARENT) == MASK_DOWN){
100     return "\\/*";
101 }else if((x & MASK_PARENT) == MASK_LEFT){
102     return "< ";
103 }else if((x & MASK_PARENT) == MASK_RIGHT){
104     return "> ";
105 }else{
106     return " ";
107 }
108 }
109
110 void displayGrid(const Grid *grid, int lastCommand)
111 {
112     int i, j;
113     #ifdef _MSC_VER
114     system("cls");
115     #else
116     system( Command: "clear");
117 #endif
```

Modify in the following manner:
In the else branch from line 116
system("clear");
to
system("cls");

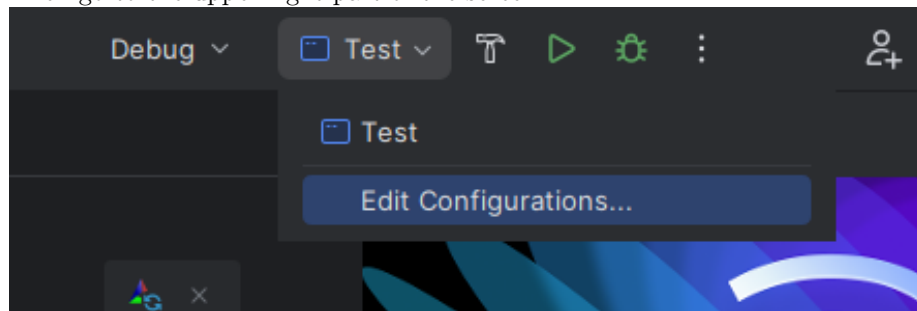


```
98     return "/\\*";
99 }else if((x & MASK_PARENT) == MASK_DOWN){
100     return "\\/*";
101 }else if((x & MASK_PARENT) == MASK_LEFT){
102     return "< ";
103 }else if((x & MASK_PARENT) == MASK_RIGHT){
104     return "> ";
105 }else{
106     return " ";
107 }
108 }
109
110 void displayGrid(const Grid *grid, int lastCommand)
111 {
112     int i, j;
113     #ifdef _MSC_VER
114     system("cls");
115     #else
116     system( Command: "cls");
117 #endif
```

1.6.2 CLion not showing grid

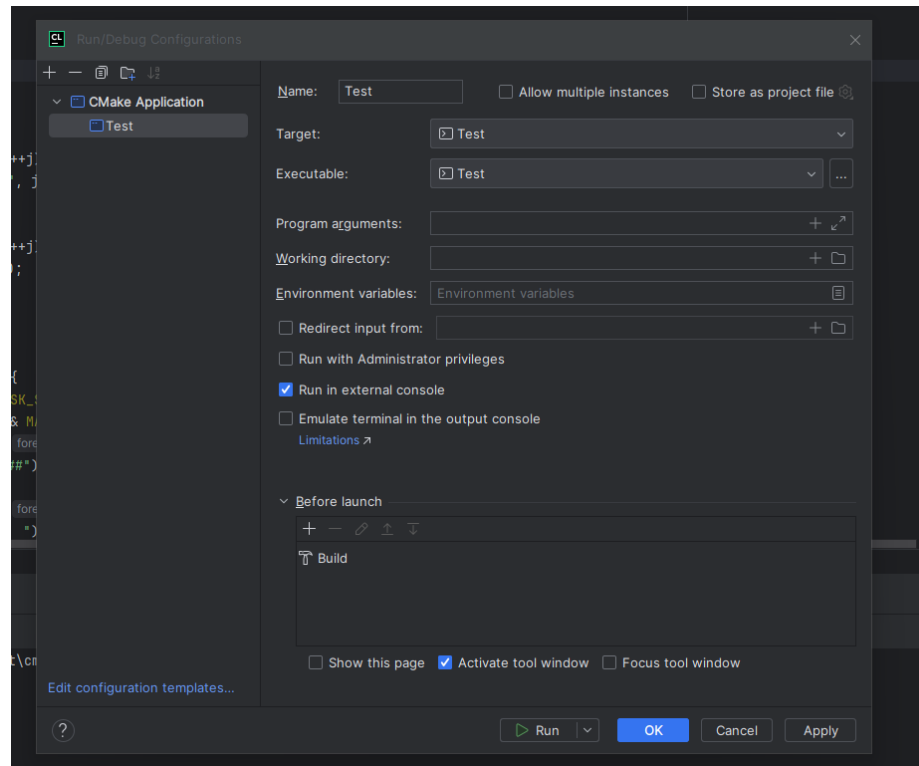


Copy the 'grid.txt' file into the 'cmake-build-debug' folder.
Then go to the upper right part of the screen:



Select 'Edit Configurations' and check the following boxes:

- Run in external console



1.7 Mac run command

```
g++ main.cpp bfs.cpp -std=c++11 && ./a.out
```