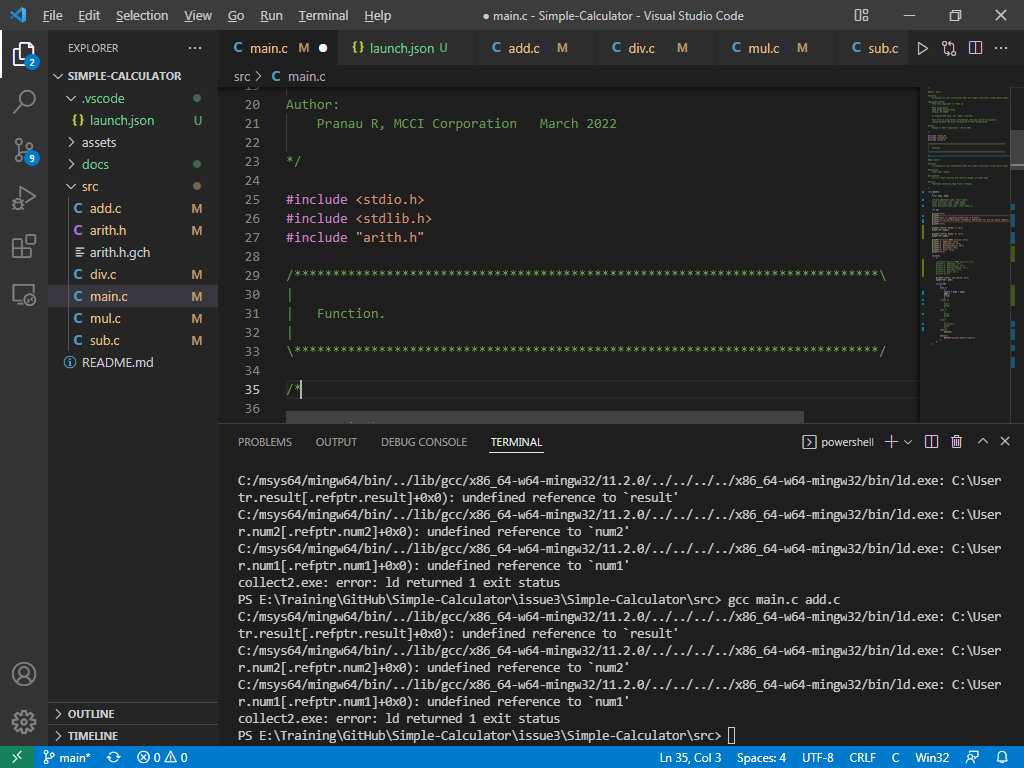
**Work/Task/Title:** Simple Calculator

**Expected Result:** To create a simple arithmetic operational calculator using Extern Keyword.

**Issue (Screenshots):**



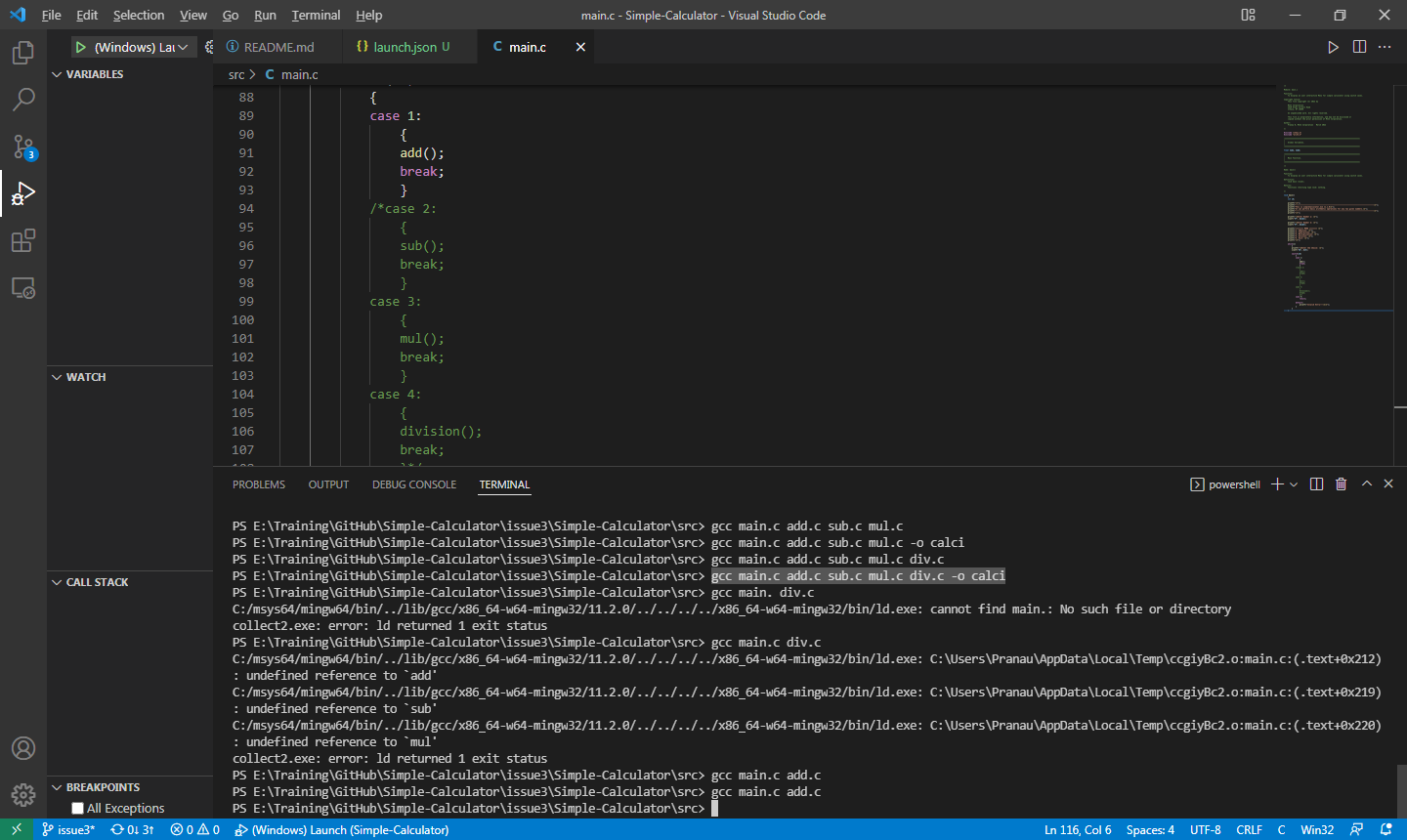
Instead of linking, we are facing compile time error. The linking is not happening properly. We are getting an “undefined reference” error. The extern variable which we declare in header file is not used properly in source as well as main file.

**Issue Log File:** compile\_issue3\_log1\_20220321a

**Referred Link:**

* <https://stackoverflow.com/questions/1433204/how-do-i-use-extern-to-share-variables-between-source-files>
* <https://iq.opengenus.org/extern-in-c/#:~:text=Extern%20is%20a%20keyword%20in,access%20variables%20across%20C%20files>.
* <https://www.softwaretestinghelp.com/cpp-errors/#:~:text=An%20%E2%80%9CUndefined%20Reference%E2%80%9D%20error%20occurs,linked%20object%20files%20and%20libraries>.

**Issue Fix:**



We were facing “undefined reference” and “first defined here” errors because we used extern keyword for a global variable in wrong way. Previously, we declared our extern variables in header file, which consists of only declaration and not definition but in actual usage, a global variable must be declared and defined on source or header file where we define that variable,

**For ex:** In our task, we are getting input numbers (variable definition) from user in main() function, therefore it is best to declare the global variable on main.c source file where the main function is present.

It is necessary to declare a global variable outside function so that whole program gets access to it.

Now, to use the values entered by user on other source files (or other function) we use “extern” keyword. Therefore, by using “extern” keyword in other file, a variable from one file (where it gets defined) can be accessed/used in other file.

**Issue Fix Log File:** compile\_issue3\_fix\_log1\_20220323a

**Link Referred:** [Understanding the extern Keyword in C - JournalDev](https://www.journaldev.com/38985/extern-keyword-in-c)