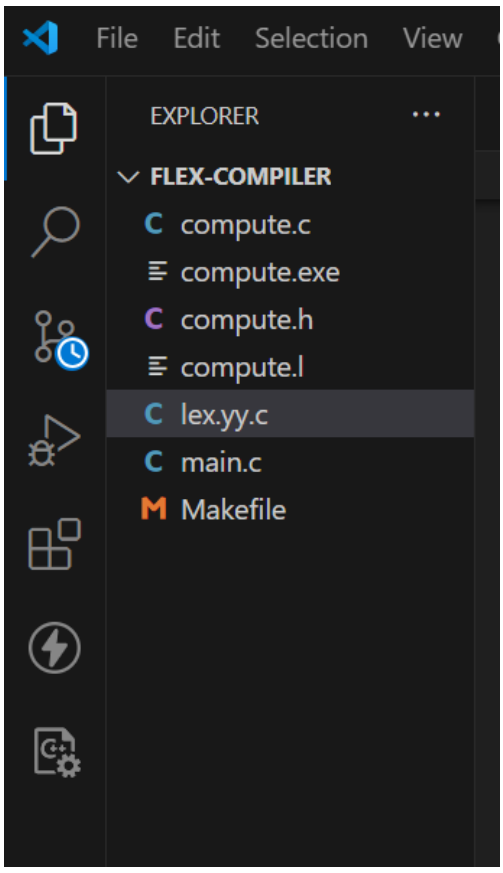
Q)Design a custom instruction for a given equation in compiler.
ANS:

Process

VSCODE:

1)Create a folder named as you want
2)make 5 files that are:compute.h, compute.l, compute.c, Makefile,Main.c

```
project-root/
├── Makefile
├── compute.l       // Flex file
├── compute.c       // C logic for custom instructions
├── compute.h       // Header file for shared declarations
└── main.c          // Main execution logic
```



3)Write the codes in all the files.
4)Install the extension MakeFile tools.
5)Select a problem statement you are dealing and update code accordingly.

INSTALL MSYS MINGW 64

MSYS:

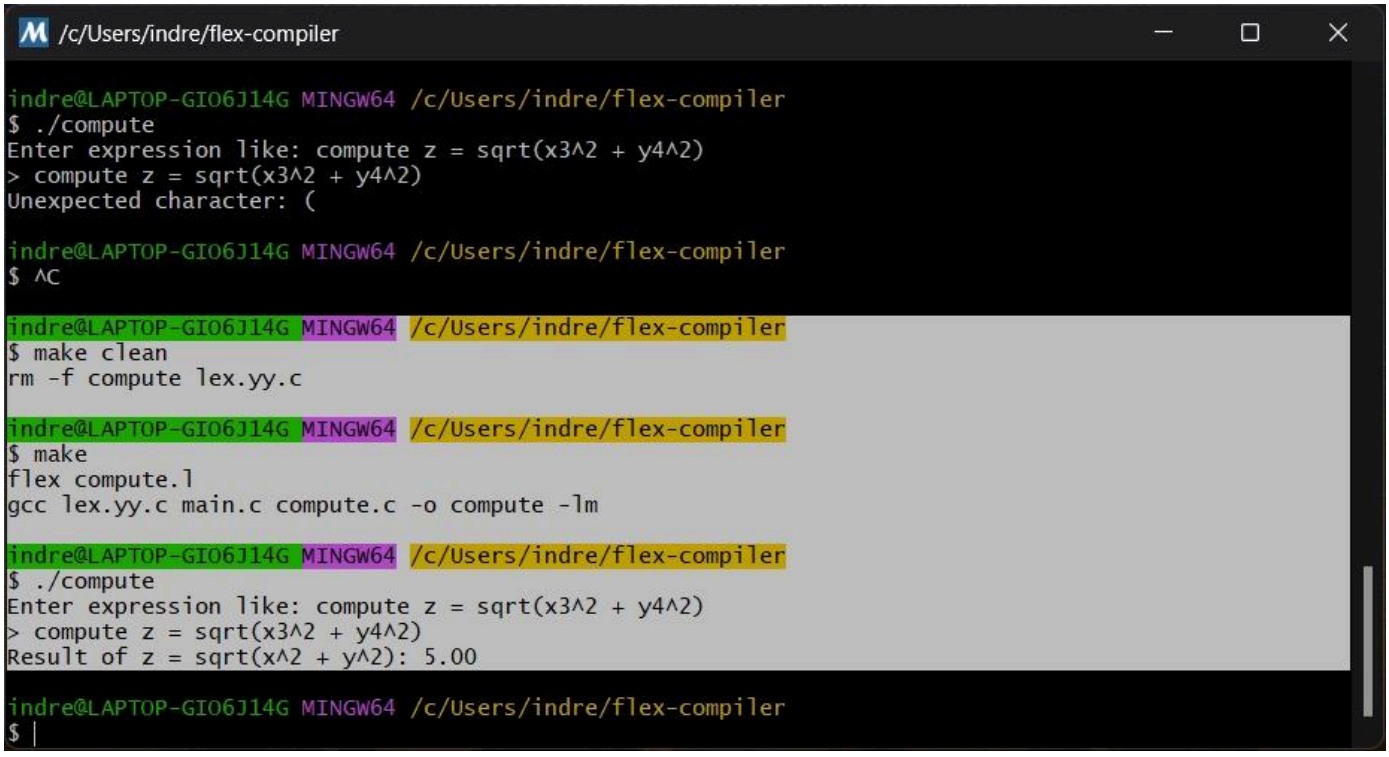
1)Download following packages in that:
 -gcc
 -flex
 -make

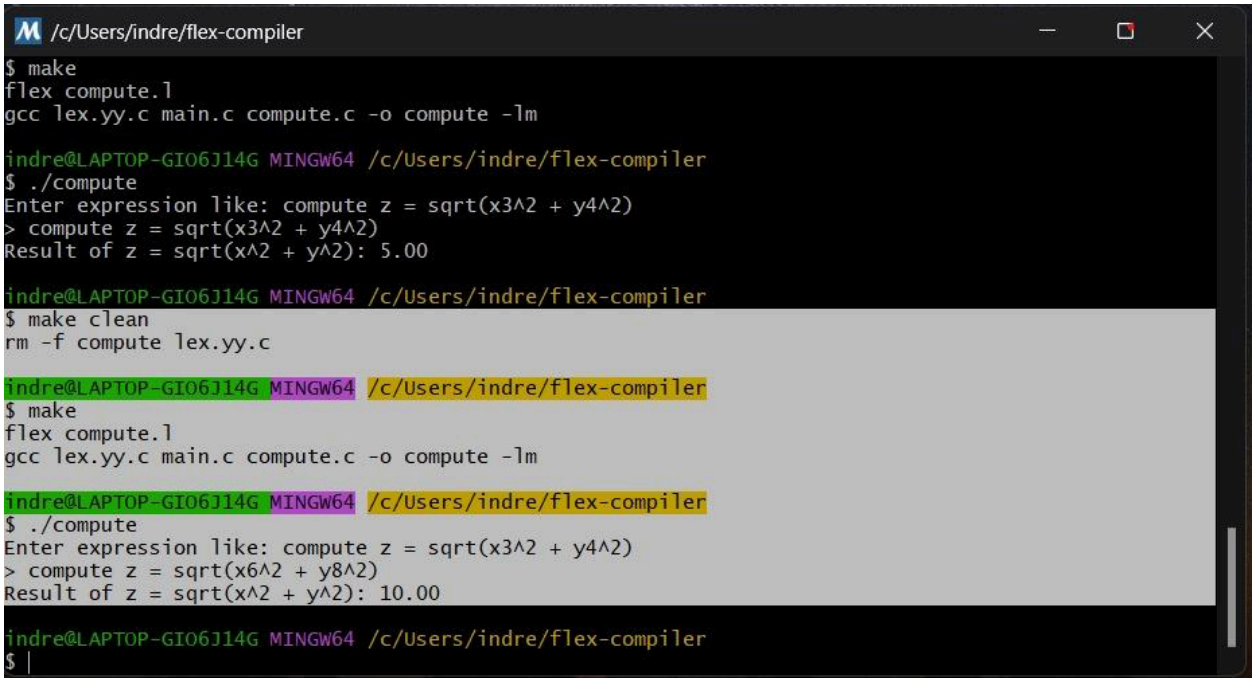
2)go to the directory where you have the folder of vs code

3)Run the command “make”

4)Run the command “./compute”

5)Put the input and result will be displayed.
->compute.exe file is automatically made inside the vs code.
->lex.yy.c file is automatically generated in vs code.





I have taken the equation to find the distance between a point and origin.
Which is given by equation sqrt(x^2 + y^2).