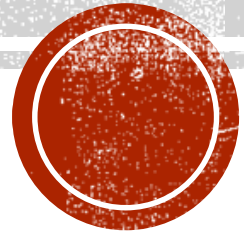
CS 101 LAB #1

INTRODUCTION TO C PROGRAMMING



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Reference: "C How to Program", Deitel and Deitel, 8th Edition, Chapters 1&2

GOAL OF LAB #1

- In this lab, you will write simple programs to get comfortable with the programming environment
- Take the help of the Internet and/or your TAs to install a comfortable programming environment that works well for you
- Two options are provided to you next, you can learn either one or both.
- Please ensure you write code neatly, with proper indentations and comments.

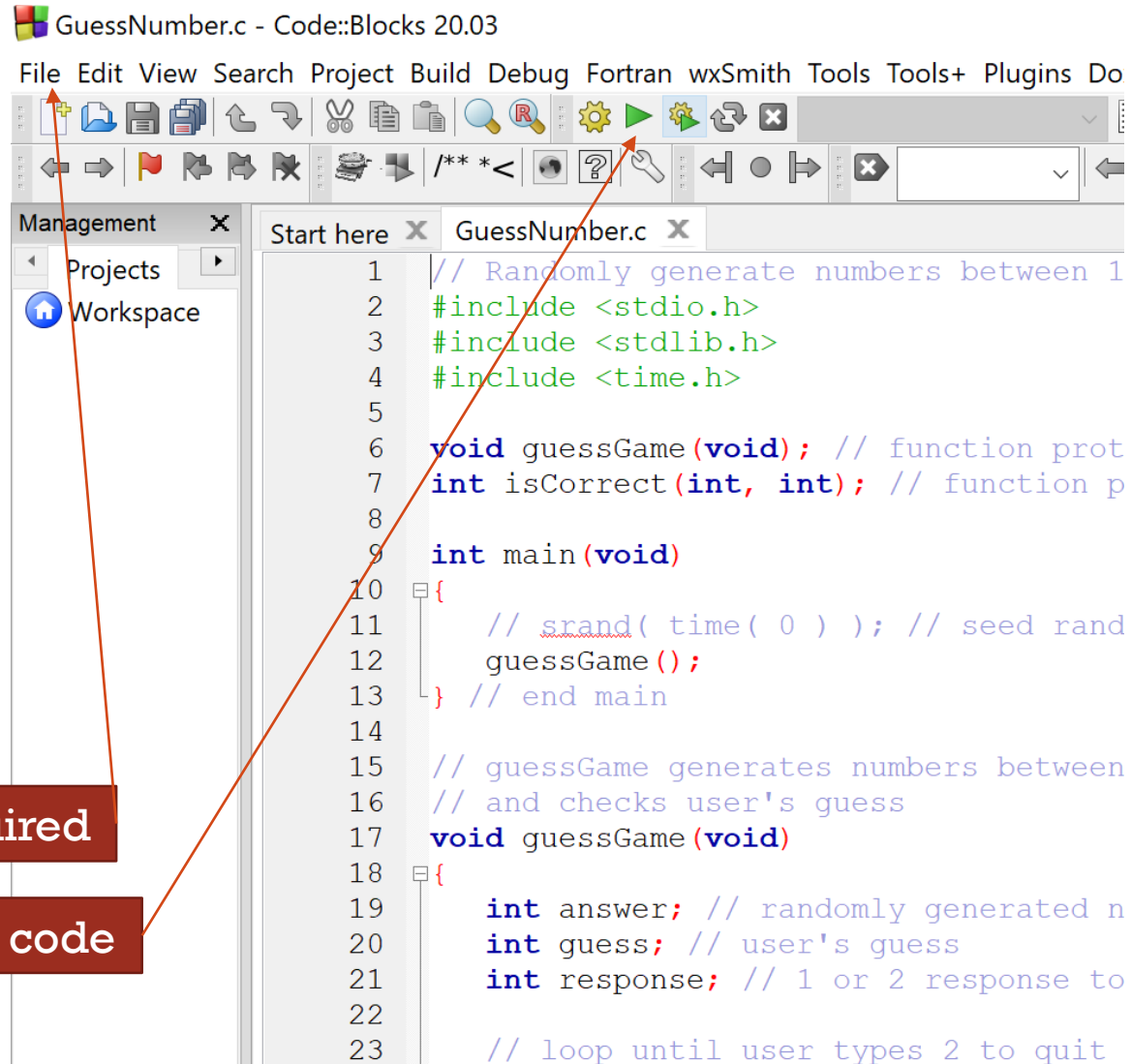
HOW TO PROGRAM: METHOD #1

- Open terminal provided by your OS
  - Open terminal available in Linux-like distributions
  - Install Linux on Windows via Windows Subsystem For Linux (WSL)
  - You can type commands on the terminal at the command prompt (usually "$")
- Open a new/existing C file using an editor of your choice (gedit, emacs, vi, vim, …)
- Type your code, save file (create directories to organize your code)
- Compile code using terminal, and execute it

```
mythili@LAPTOP-4QHOG675:~$ emacs helloworld.c
mythili@LAPTOP-4QHOG675:~$ gcc helloworld.c
mythili@LAPTOP-4QHOG675:~$ ./a.out
Hello, world!
mythili@LAPTOP-4QHOG675:~$
```

HOW TO PROGRAM: METHOD #2

- Use an Integrated Development Environment (IDE), where you can write, compile and run code from one place
- Code Blocks works well across Linux and Windows (will be available on the lab machines also)
- codeblocks-20.03mingw-setup.exe works well on Windows
- Available via apt for Ubuntu/Linux



Open file and edit as required

Build (compile) and run the code

PRACTICE PROBLEMS

1. Write a program to print "Hello, world!" to screen
2. Write a program to print two lines to the screen. The first line should be "Hello CS101". The second line should be "My name is XYZ" where XYZ is your name
3. Run the "Guess The Number" program provided in the examples of Deitel & Deitel (ch01/GuessNumber/GNU/). Play the original game as well as the randomized version. What is the difference between the two? Can you arrive at a strategy to guess the number quickly?

(If you have completed the above, please look around and help your classmates reach this checkpoint as well by end of week 1.)