6CS005 High Performance Computing

Pre-Requisite for Workshop 1: Compile and Run C Program in Ubuntu

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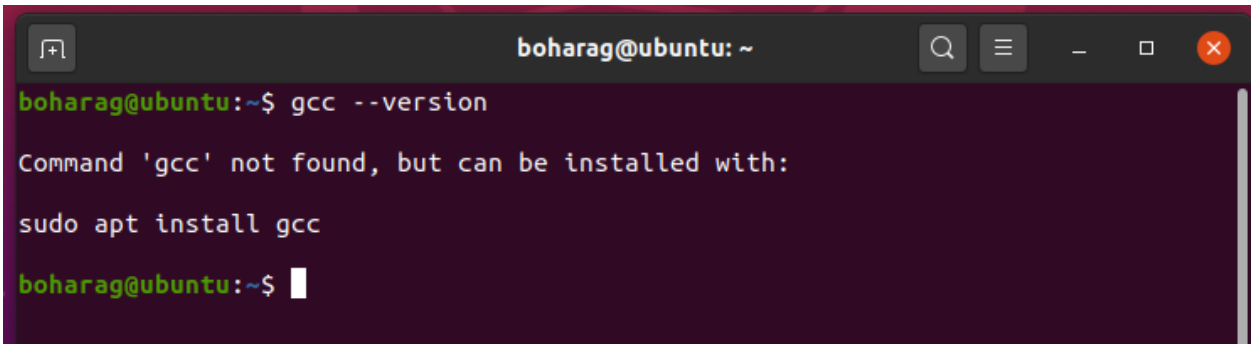
Install GCC in Ubuntu

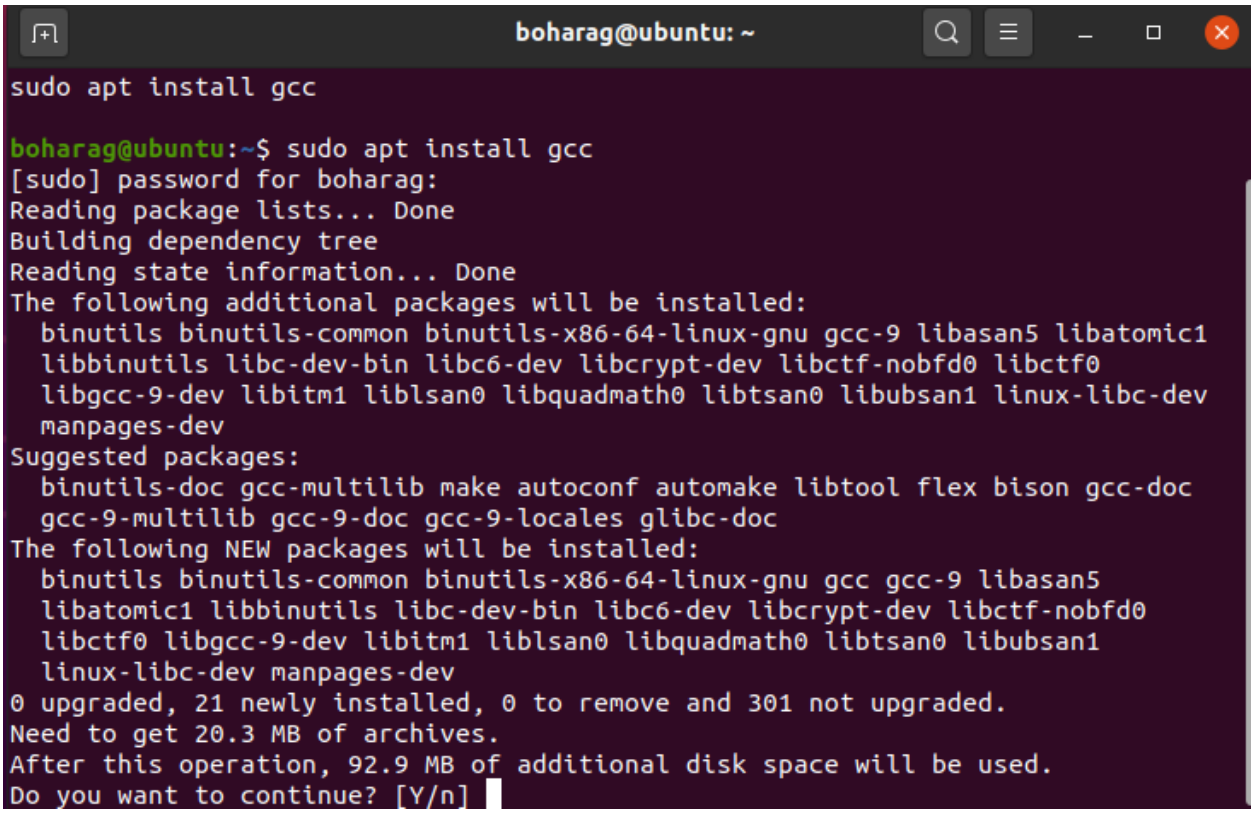
1. First check if you have gcc installed with command gcc --version



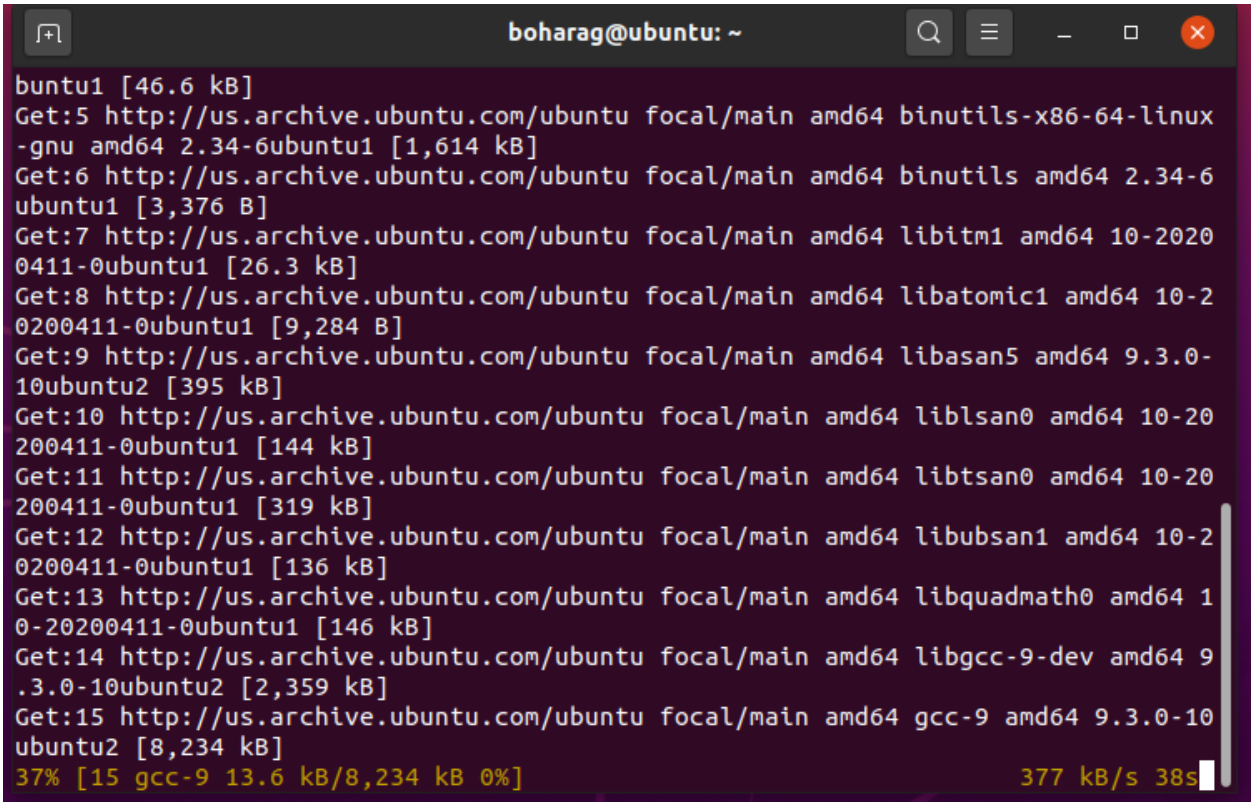
2. If gcc is installed it will display the version else it will give you the command to install gcc

   sudo apt install gcc

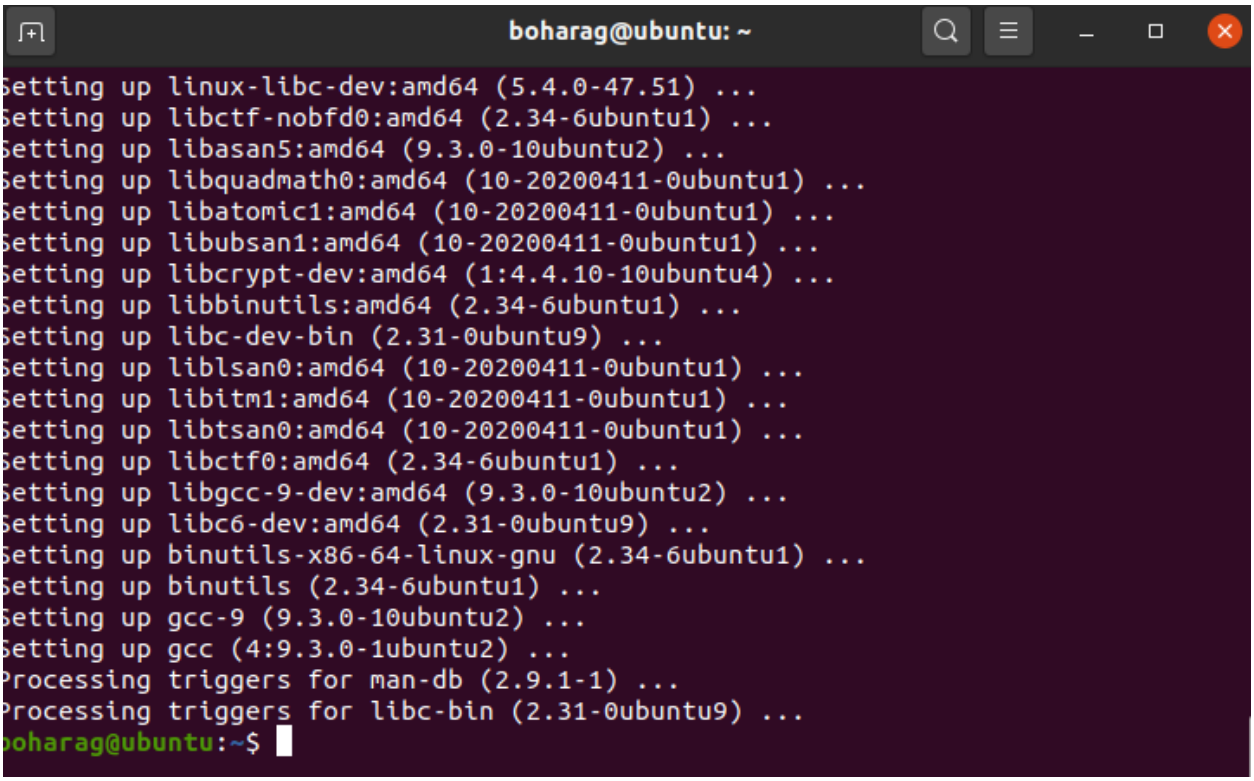
3. Now execute the command ‘sudo apt install gcc’ and it will proceed as shown:



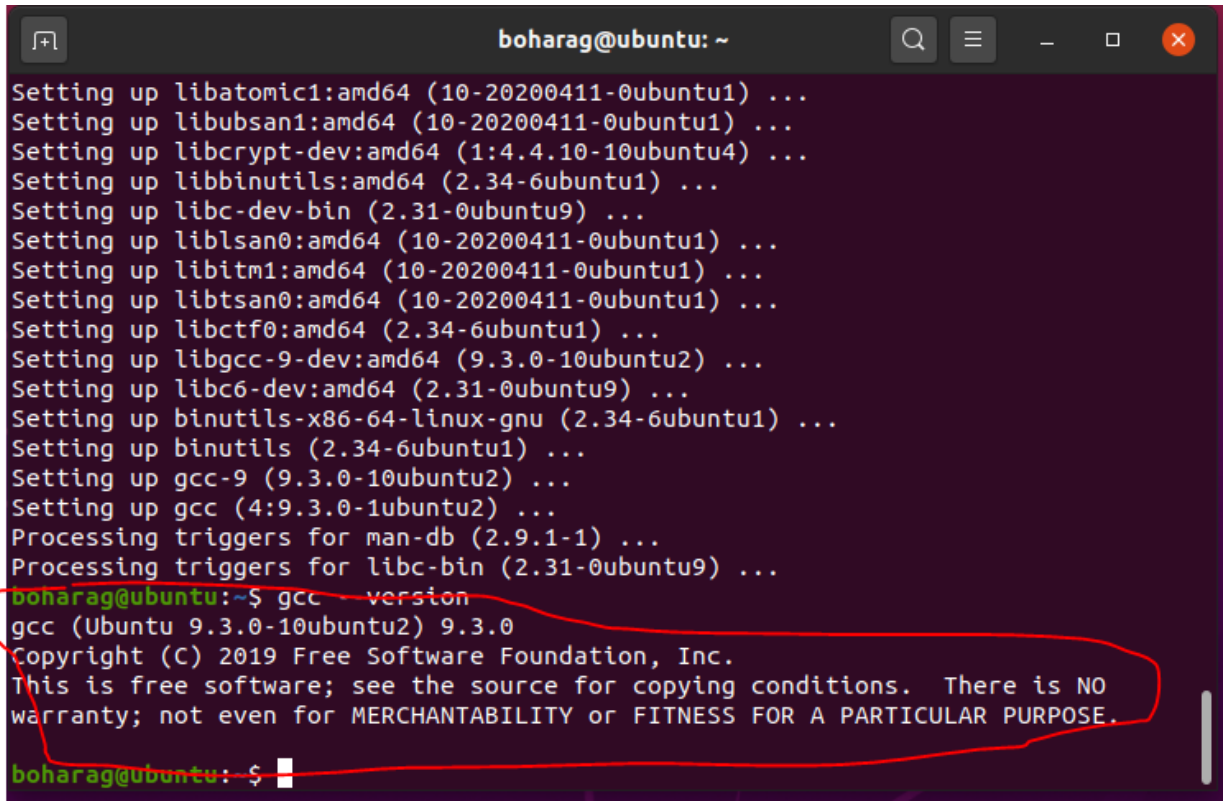
4. Select ‘Y’ to continue, it will proceed as shown:



5. If everything goes fine it will be completed as:



6. Now you can check whether gcc is installed successfully with command gcc –version. It will give the details of version installed.



7. Now you have successfully installed gcc and you are ready to compile your C programs.

Compile and Run C Program

1. Use a text editor to write the C source code.
   For example, type the command below command to create the file hello.c

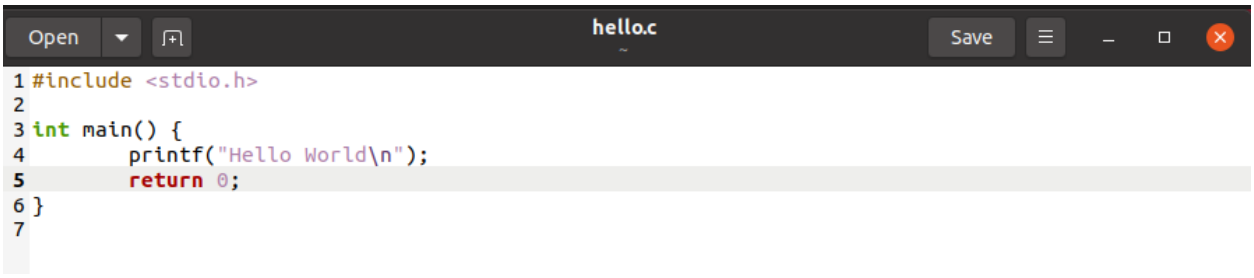
   ```
   gedit hello.c
   ```

   It will open empty file with name hello.c for you to enter the source code.

2. Now enter the C source code below:

```
#include <stdio.h>

int main() {

    printf("Hello World\n");

    return 0;

}
```

3. Close the editor window



4. Compile the program with below command:

   gcc hello.c -o hello

   This command will invoke the GNU C compiler to compile the file hello.c and output (-o) the result to an executable called hello.

5. Now execute the program with below command:

   ./hello

   This should result in the output

   Hello World