

INSTALL AND EXECUTE C COMPILER IN VIRTUAL MACHINE

Aim:

To install a C compiler in Virtual machine and execute sample program using

Virtual box.Requirements:

1. VirtualBox software
2. Ubuntu OS of version ubuntu-15.10-desktop-i386
3. gcc compiler installed in Ubuntu OS and exported the virtual machine as ubuntu os with gcc.ova file.
4. first.c program

Procedure:

1. Open VirtualBox.
2. Select File -> Import Appliance -> Select file named 'ubuntu15 with gcc.ova' -> Open -> Next -> Import.
3. Select 'ubuntu15' virtual machine and select start button.
4. Enter into terminal mode and type as 'sudo nano first.c'.
5. Type the content of the file given below for first.c.
6. Press ctrl+o and ctrl+x key combinations for saving the file and exit from the editor modes respectively.
7. For compiling, type the command as: gcc first.c -o first
8. For execution of the file, type as: ./first
9. Now result of the C program will be displayed.

Sample C program:

```
first.c file
#include<stdio.h>
int
main(void)
{
printf("My first C Program\n");
}
```

Screenshots



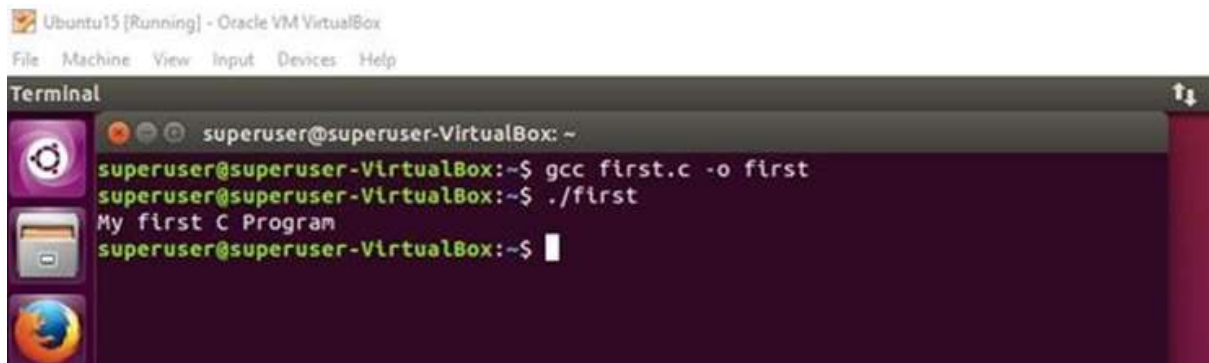
A terminal window titled "Terminal" with a dark background. The prompt is "superuser@superuser-VirtualBox: ~". The command "sudo nano first.c" has been entered and is ready to be executed.

```
superuser@superuser-VirtualBox: ~  
superuser@superuser-VirtualBox:~$ sudo nano first.c
```



The terminal window now shows the GNU nano 2.4.2 editor interface. The file "first.c" is open. The code entered is: `#include<stdio.h>`, `int main(void)`, `{`, `printf("My first C Program\n");`, `return 0;`, and `}`. The bottom of the screen shows the "File Name to Write: first.c" and a list of keyboard shortcuts for nano.

```
GNU nano 2.4.2 File: first.c  
  
#include<stdio.h>  
int main(void)  
{  
printf("My first C Program\n");  
return 0;  
}  
  
File Name to Write: first.c  
^G Get Help      M-D DOS Format   M-A Append      M-B Backup File  
^C Cancel        M-M Mac Format   M-P Prepend     ^T To Files
```



The terminal window shows the compilation and execution of the program. The command "gcc first.c -o first" has been executed, followed by "./first". The output is "My first C Program".

```
superuser@superuser-VirtualBox: ~  
superuser@superuser-VirtualBox:~$ gcc first.c -o first  
superuser@superuser-VirtualBox:~$ ./first  
My first C Program  
superuser@superuser-VirtualBox:~$
```