

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 withgcc.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 moderespectively.
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



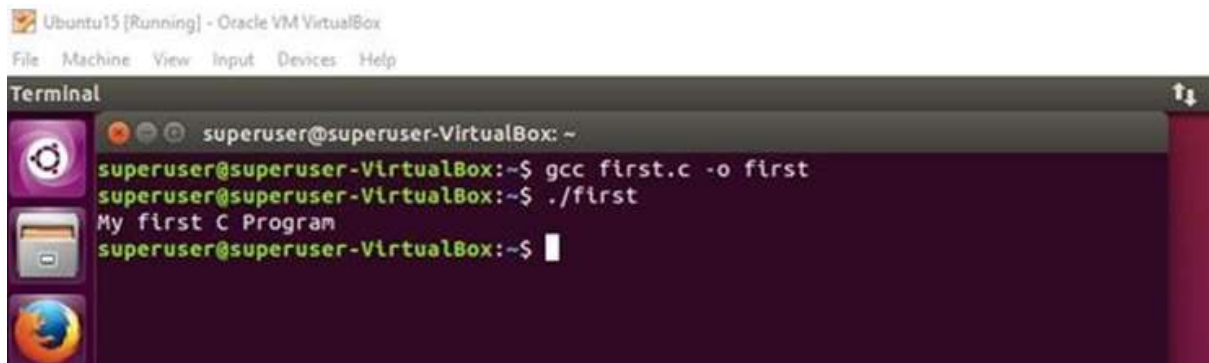
A terminal window titled "Terminal" with a dark background. The prompt is "superuser@superuser-VirtualBox: ~". The command "sudo nano first.c" has been entered and is ready to be executed.

```
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 inside is: `#include<stdio.h>`, `int main(void)`, `{`, `printf("My first C Program\n");`, `return 0;`, and `}`. At the bottom, there is a prompt "File Name to Write: first.c" and a table of keyboard shortcuts.

```
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:~$
```