Linux BASH Scripting

contents :

This section is about BASH Scripting for Beginners.

BASH

Bash is a Unix shell and command language written by Brian Fox for the GNU Project as a free software replacement for the Bourne shell. **BASH** stands for **B**ourne **A**gain **Sh**ell .

BASH uses for Writing Software installation Script for Unix Based Operating System . Bash is a command processor that typically runs in a text window, where the user types commands that cause actions . Bash can also read and execute commands from a file, called a script.

How to write BASH Script

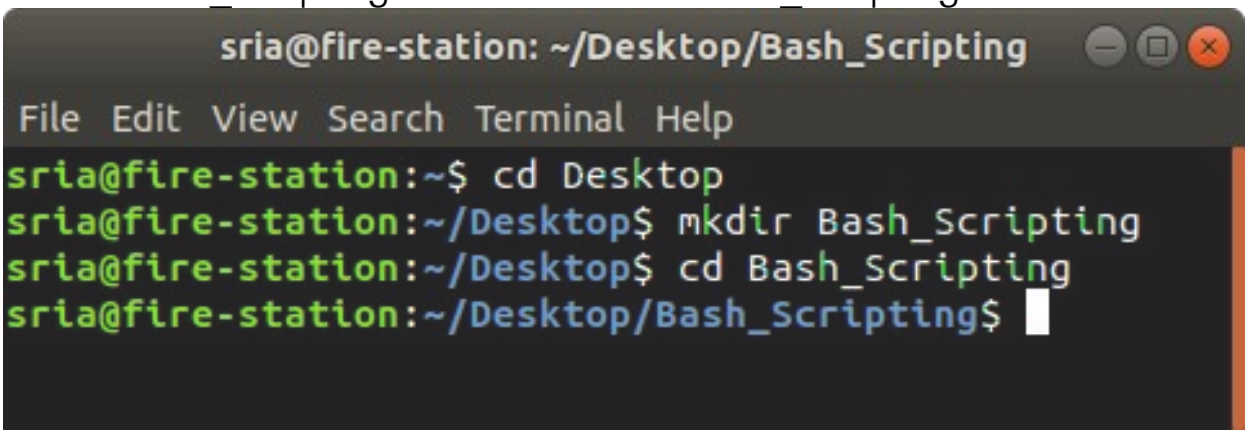
We need text editor " Sublime Text " or " gedit " . If we don't have any text editor , we can use only terminal . Linux distros have come with 'nano' text editor default. 'Nano' has no graphical view. It is used from terminal .
Here, I have shown how to write script by gedit / Atom / terminal .

If your Linux machine hasn't gedit intsall gedit .
To install gedit open terminal by " **ctrl + alt + t** " from your keyboard . Then type " sudo apt-get install gedit "
Or For installing Atom : click Here to download .deb file then install by ubuntu software manager or terminal .

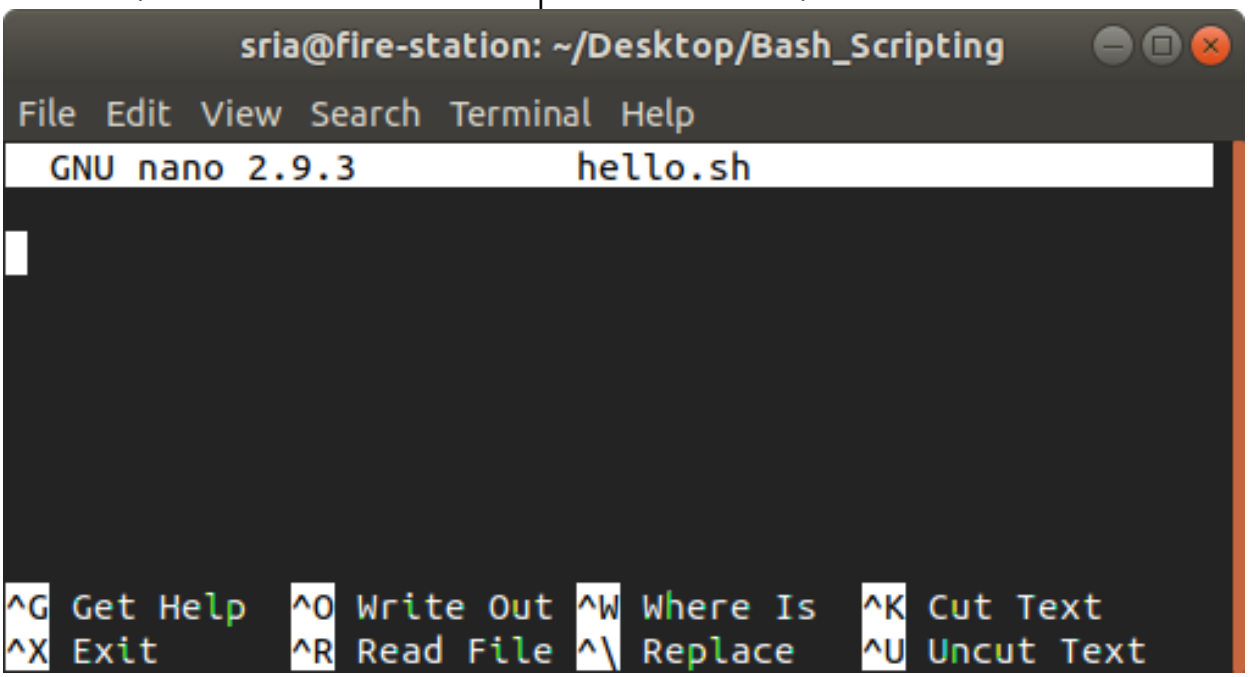
The previous section we have seen about some Linux Commands. We will use some of them here.

Print a String

By terminal : Open your terminal. Create a folder where you want to put your script files . I have chosen Desktop and create a folder name Bash_Scripting . Go inside the Bash_Scripting Folder .



Now type " nano hello.sh " . we are going to create a script file name hello.sh (.sh is extension of bash script file) then hit enter button . You will see like this picture below .

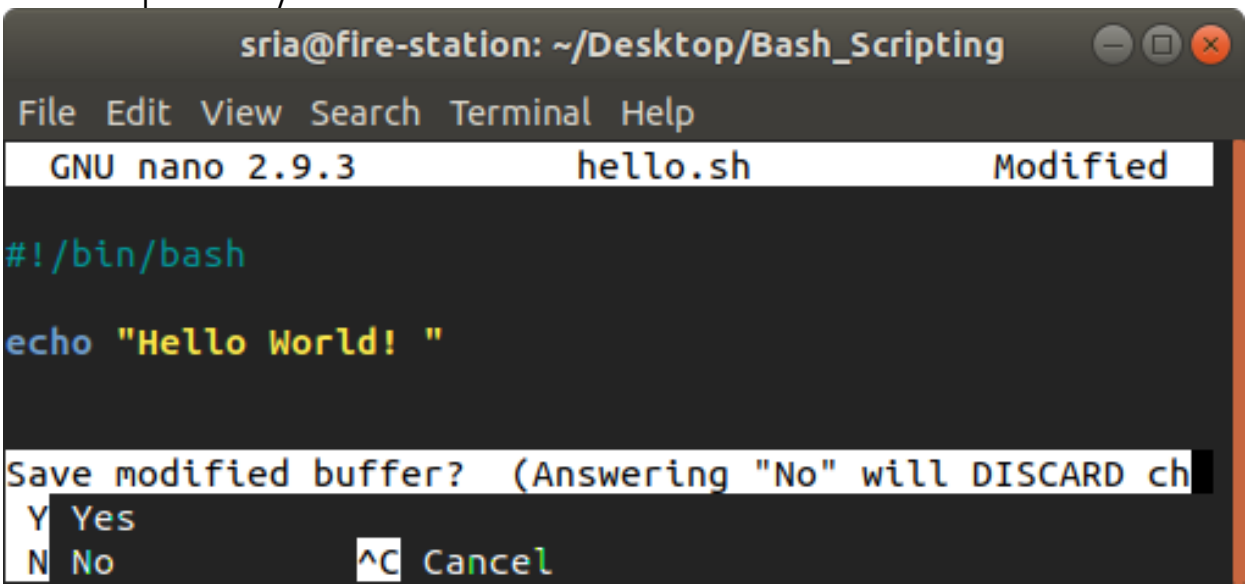


Now we start our journey to write script.

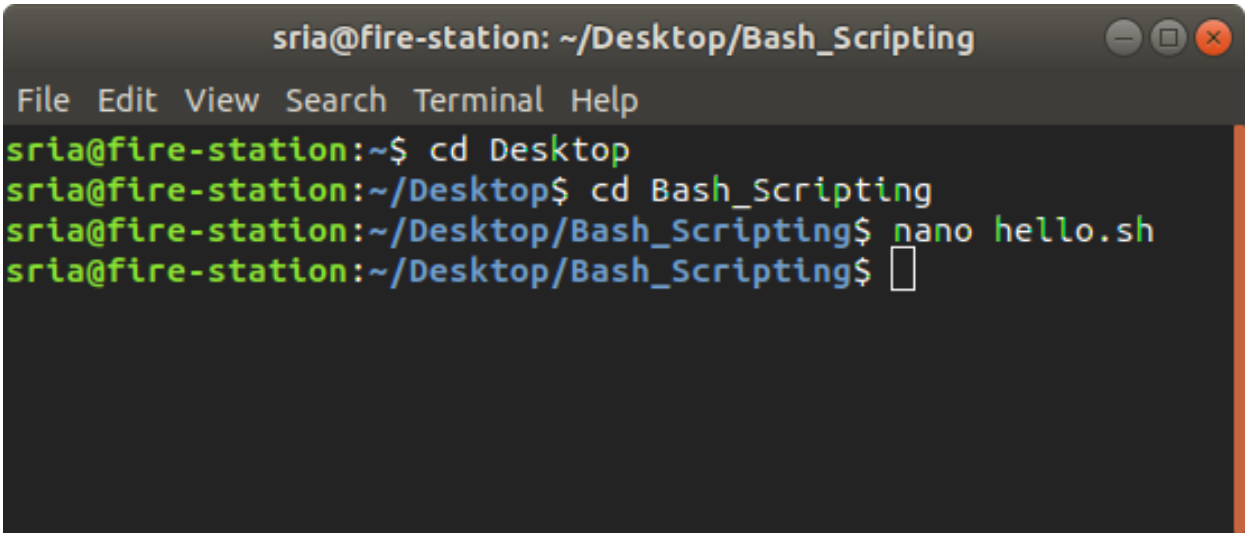
#!/bin/bash

echo "Hello World ! "echo is = print . It helps to print String. Bash is case sensitive .

So you should beware of this matter. After writing , press " ctrl + c " then press ' y ' then hit enter button .

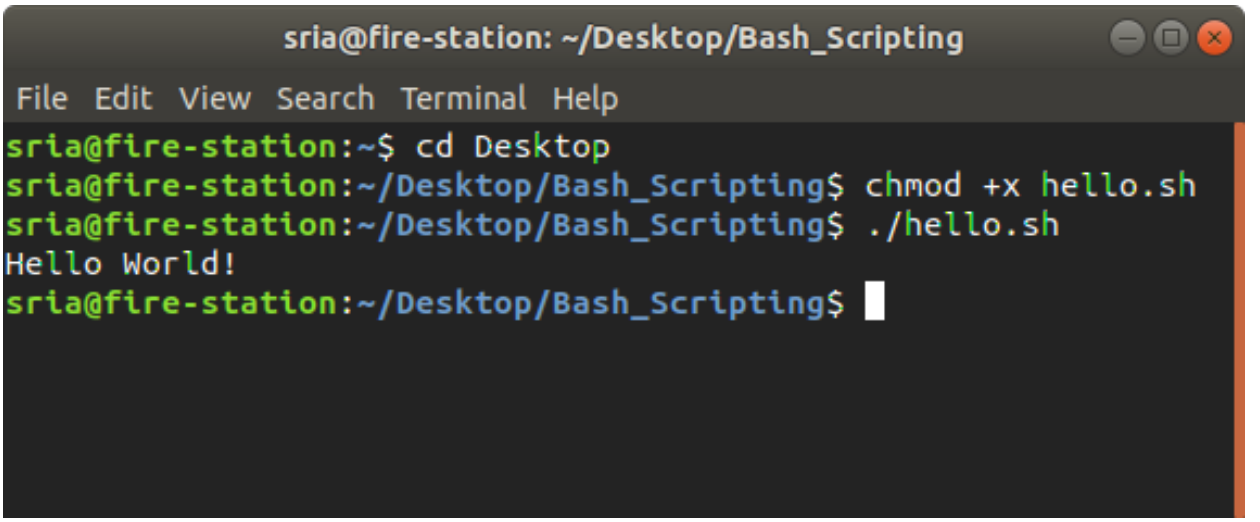


Now you are in your default terminal



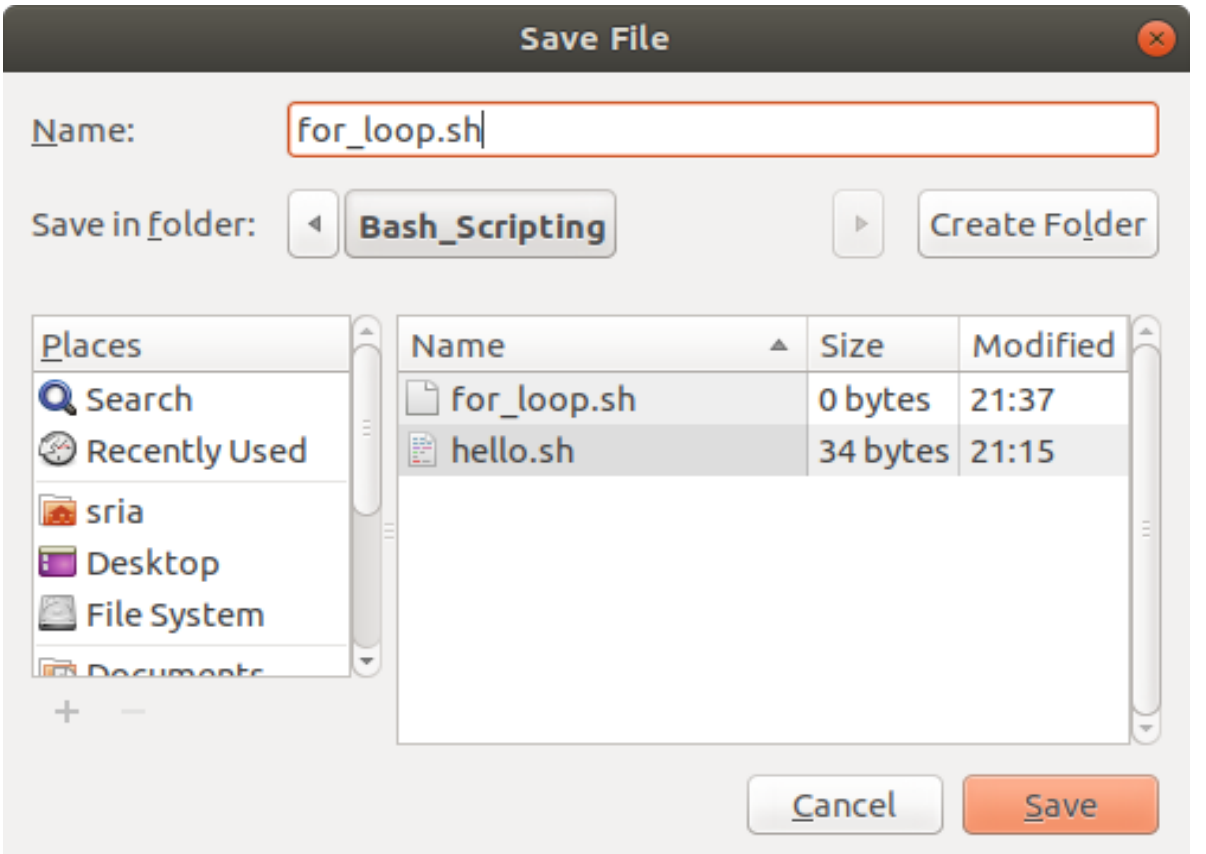
This time we are going to execute the script . For executing the script file " hello.sh " need execute permission . To give permission type " chmod +x hello.sh "
then hit enter

now We are able to execute the script. Type " ./hello.sh "
you will see like that

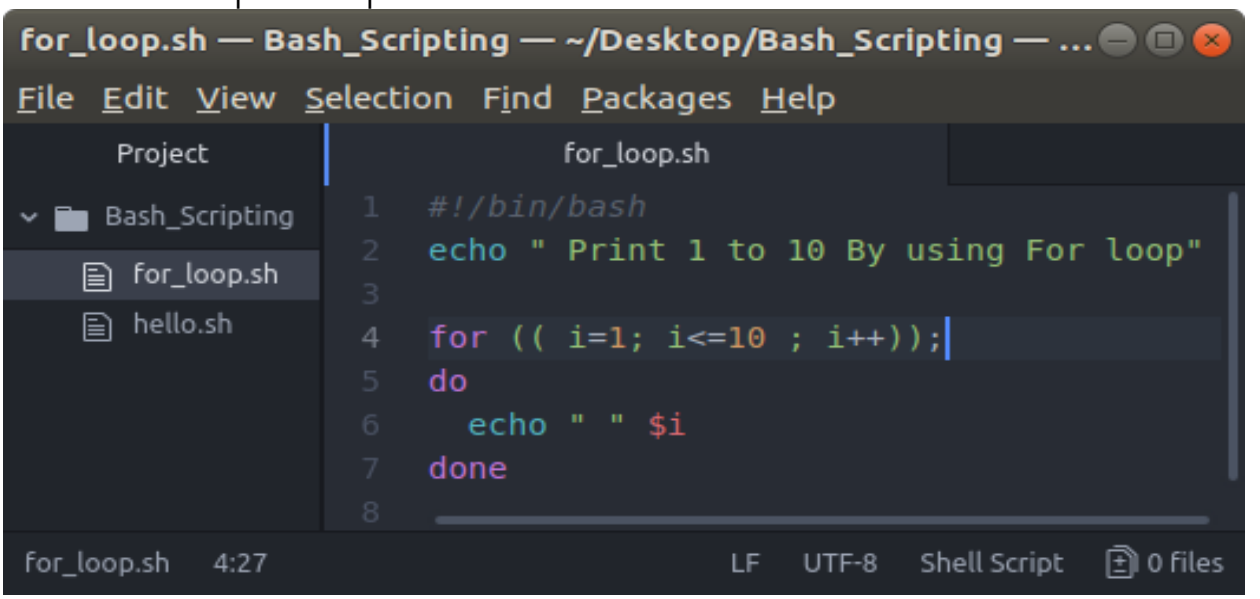


From we try another option .
This time we write script by using a graphical text editor and use terminal only for executing the script.

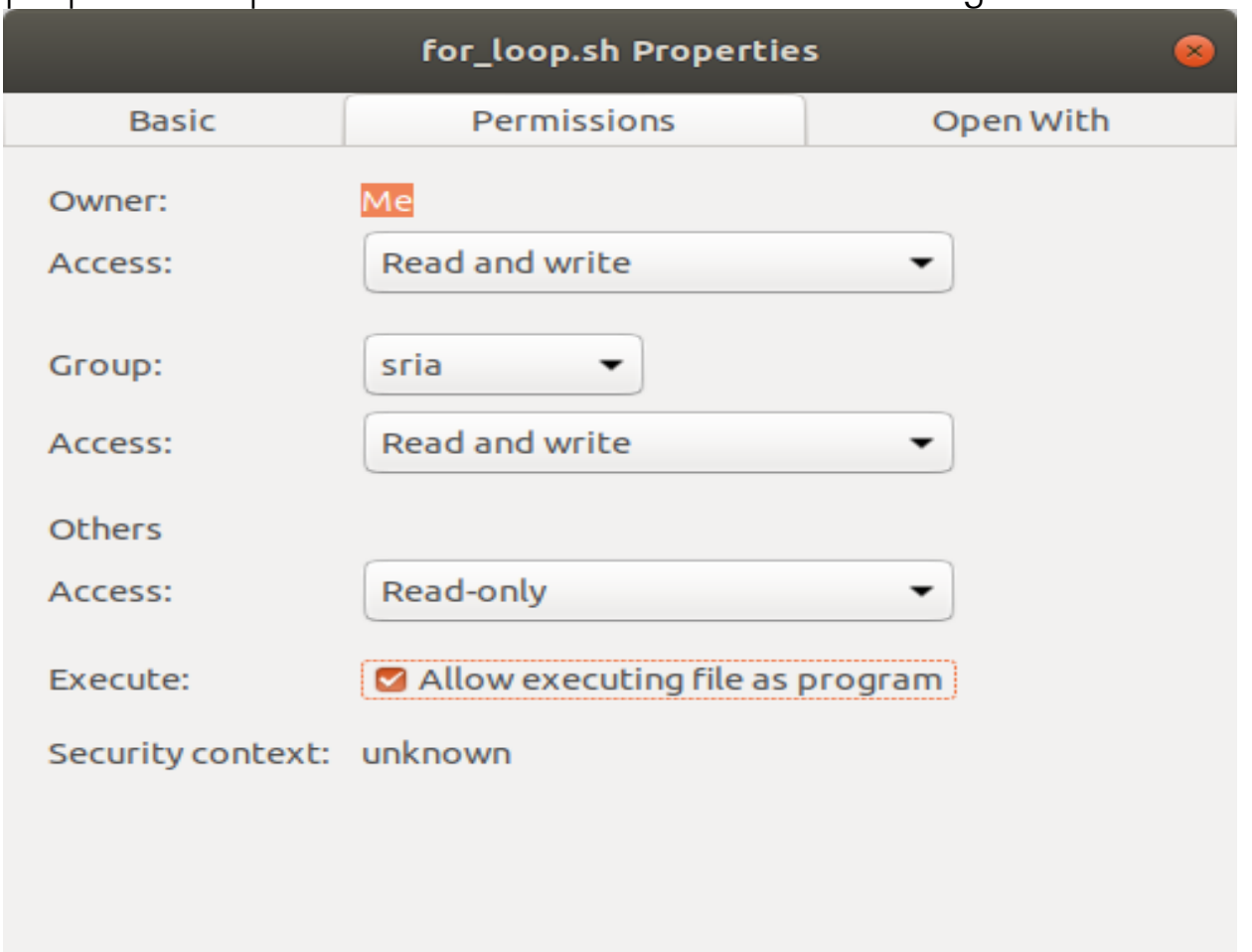
I have tried cover – For loop, If / Else , Switch case and how to write function and call a function .Open gedit and create a new file . I have used Atom here . Save file as for_loop.sh



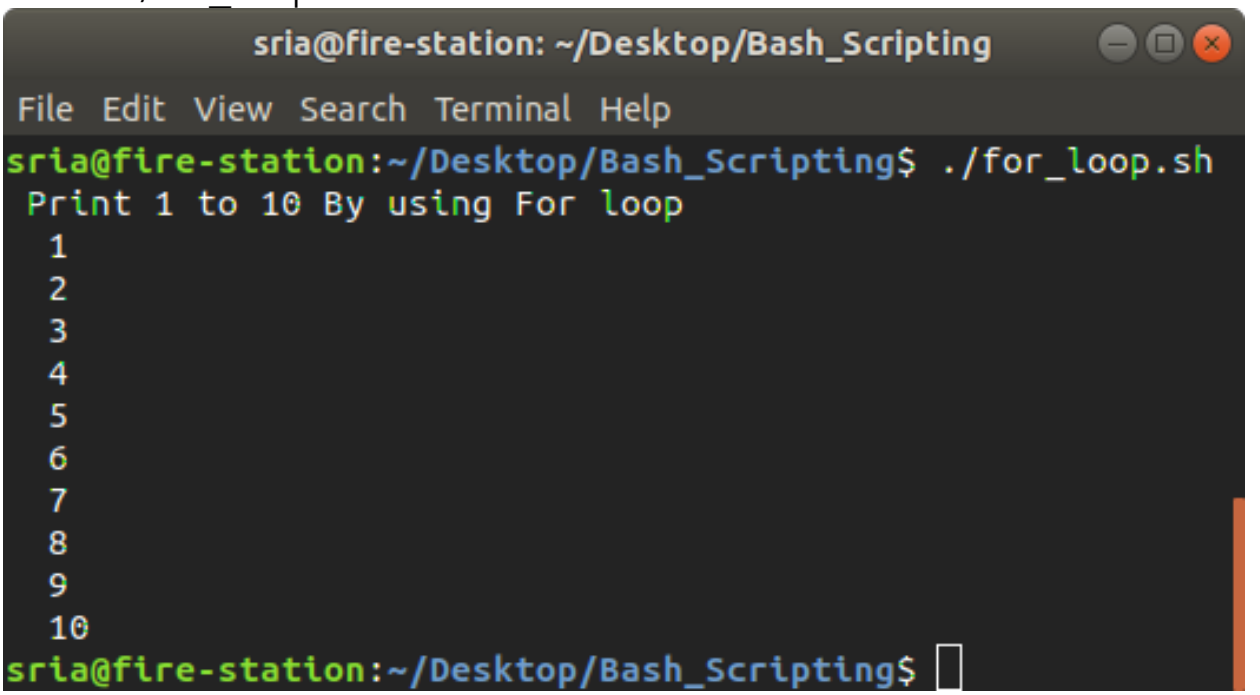
write the script and press ctrl + s to save file .



Go to the folder where you put your script files and give permisiion for executing. I have kept my files in */Desktop/Bash_Scripting* .
Go to for_loop.sh and click right button of mouse , you will find properties → permission . And Tick to Allow executing files .



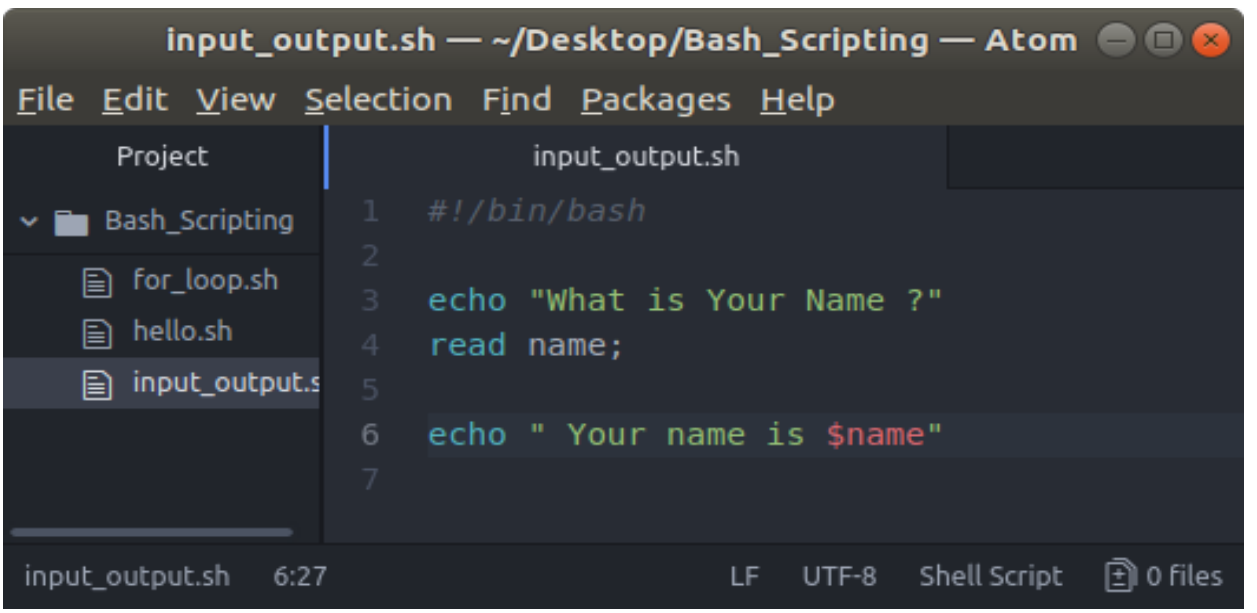
Open your terminal by clicking right button of mouse above the folder and below you will find open in terminal.
Or , you can go that folder using “cd Desktop/Bash_Scripting “ then “ ./for_loop.sh “



Here is our output of written script of for_loop.sh .

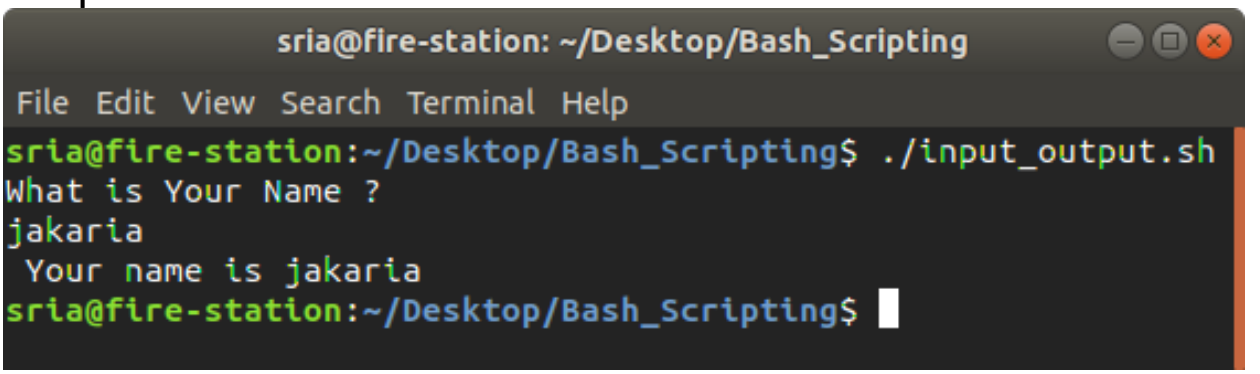
This is the way to write and execute bash script. I have added more example below .

Standard Input Output



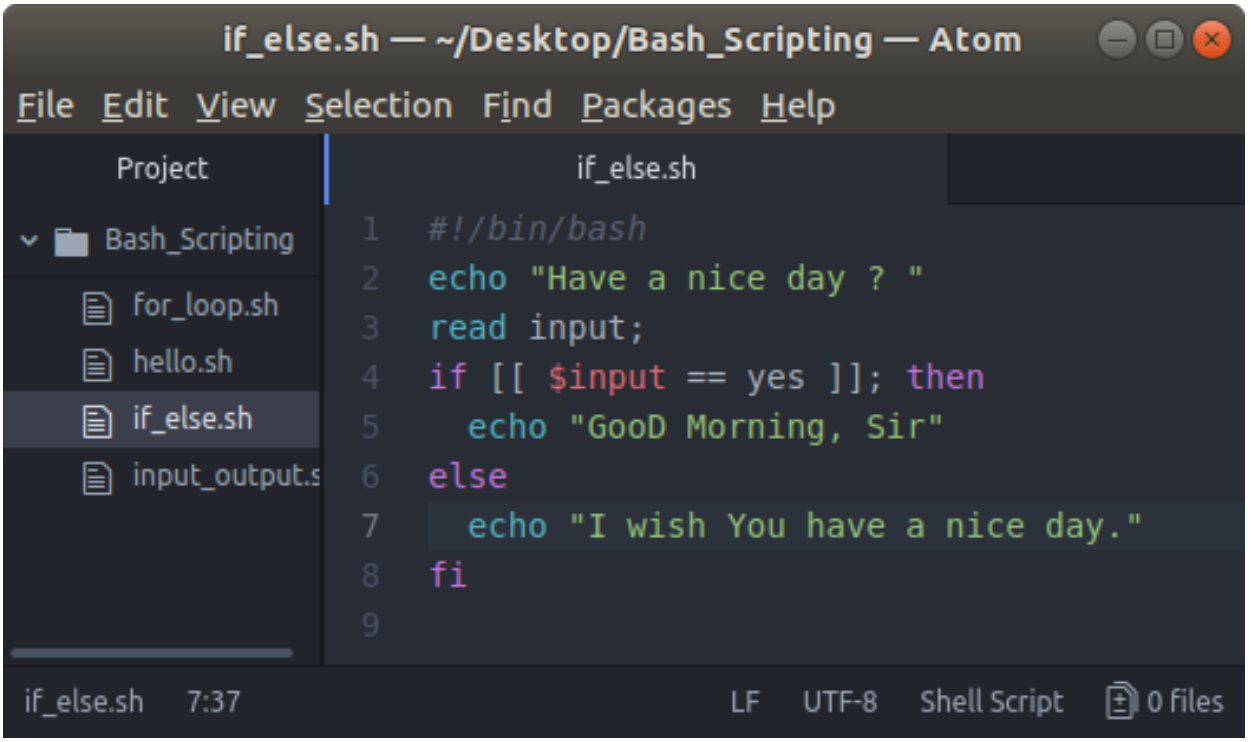
read helps you take input from keyboard. I take an input in “name” variable and call the variable by using $ with variable name. I call the “ name “ variable by using $name .

Output :



In the second Line I give my name as input .

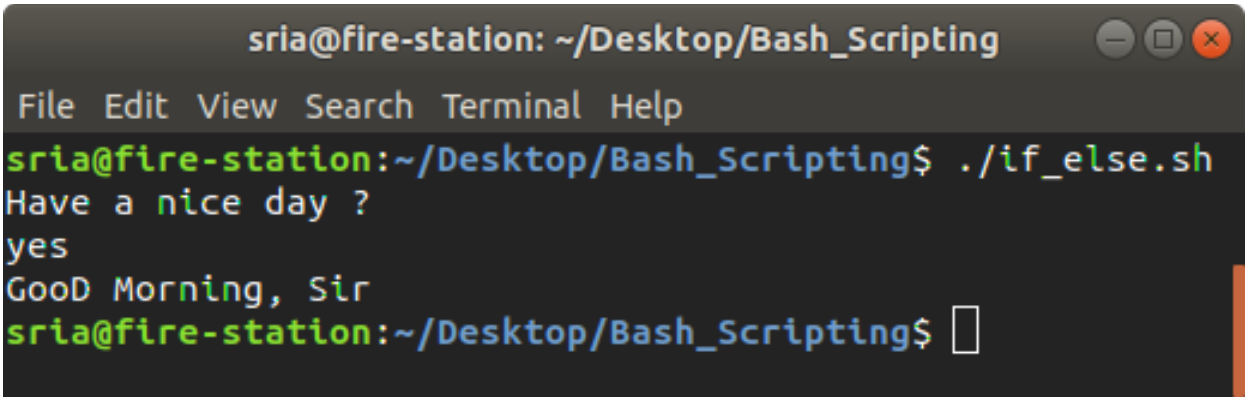
IF / ELSE



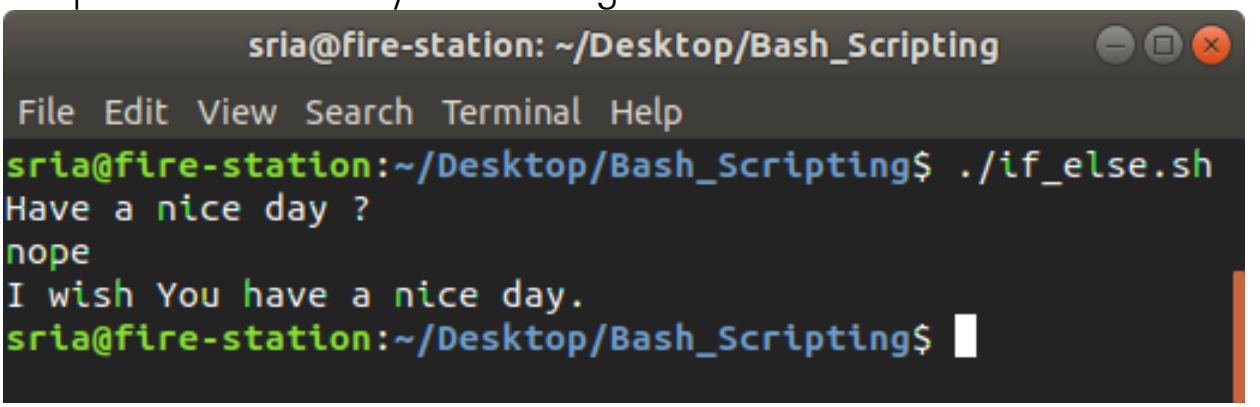
if condition is started by if and finished by fi (reverse of if).

Output of if / else

if input == yes then

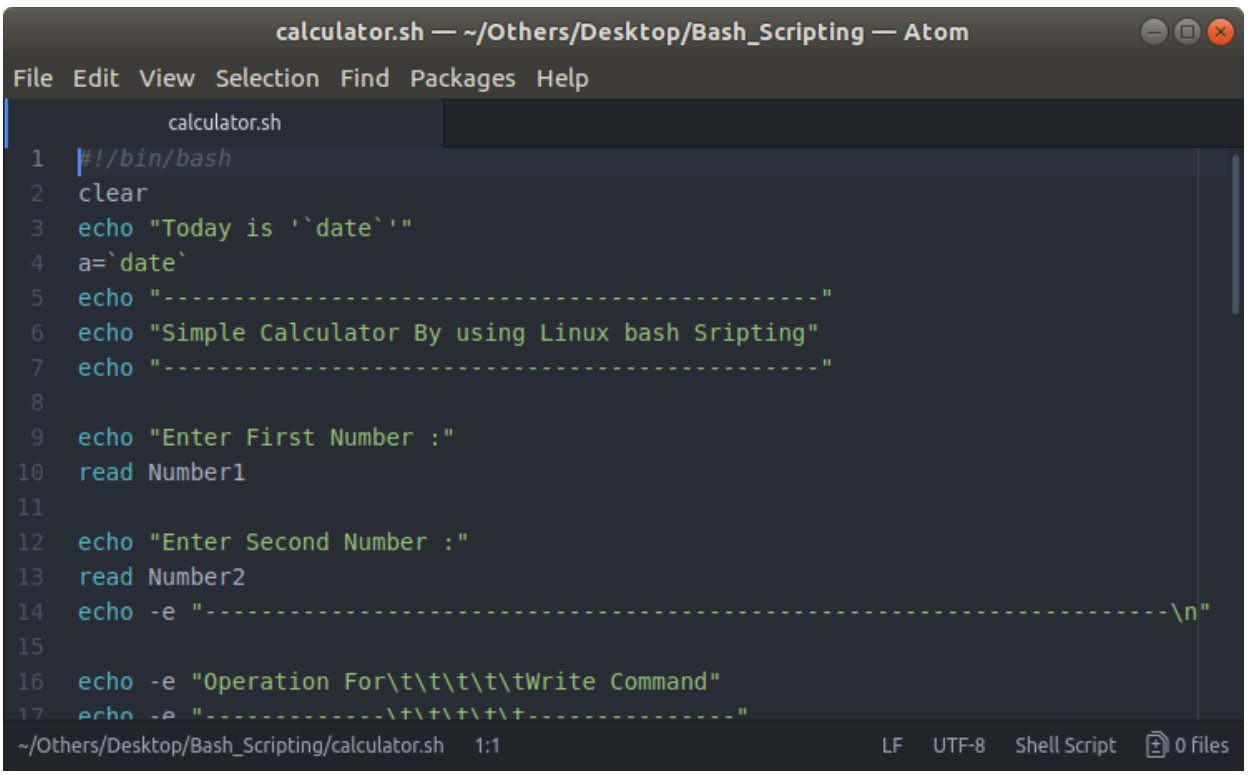


if input == no or any other thing then

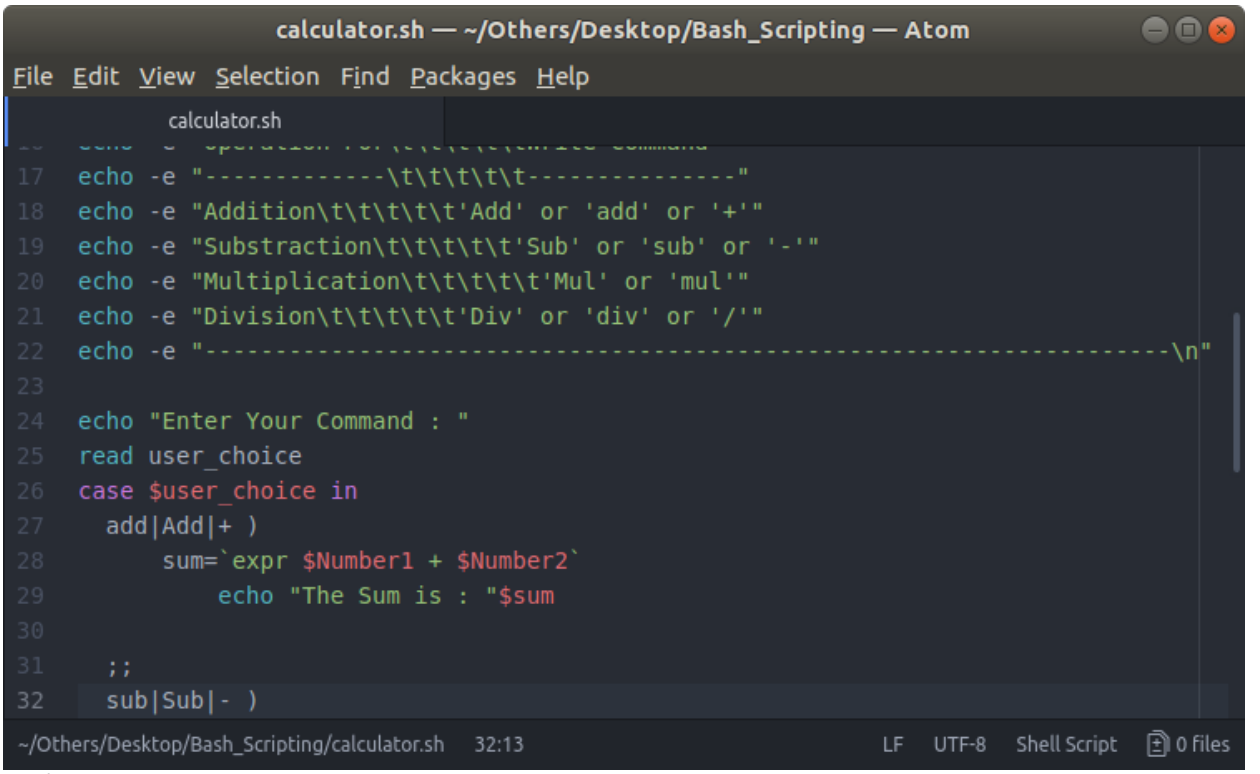


Switch .. Case (Calculator)

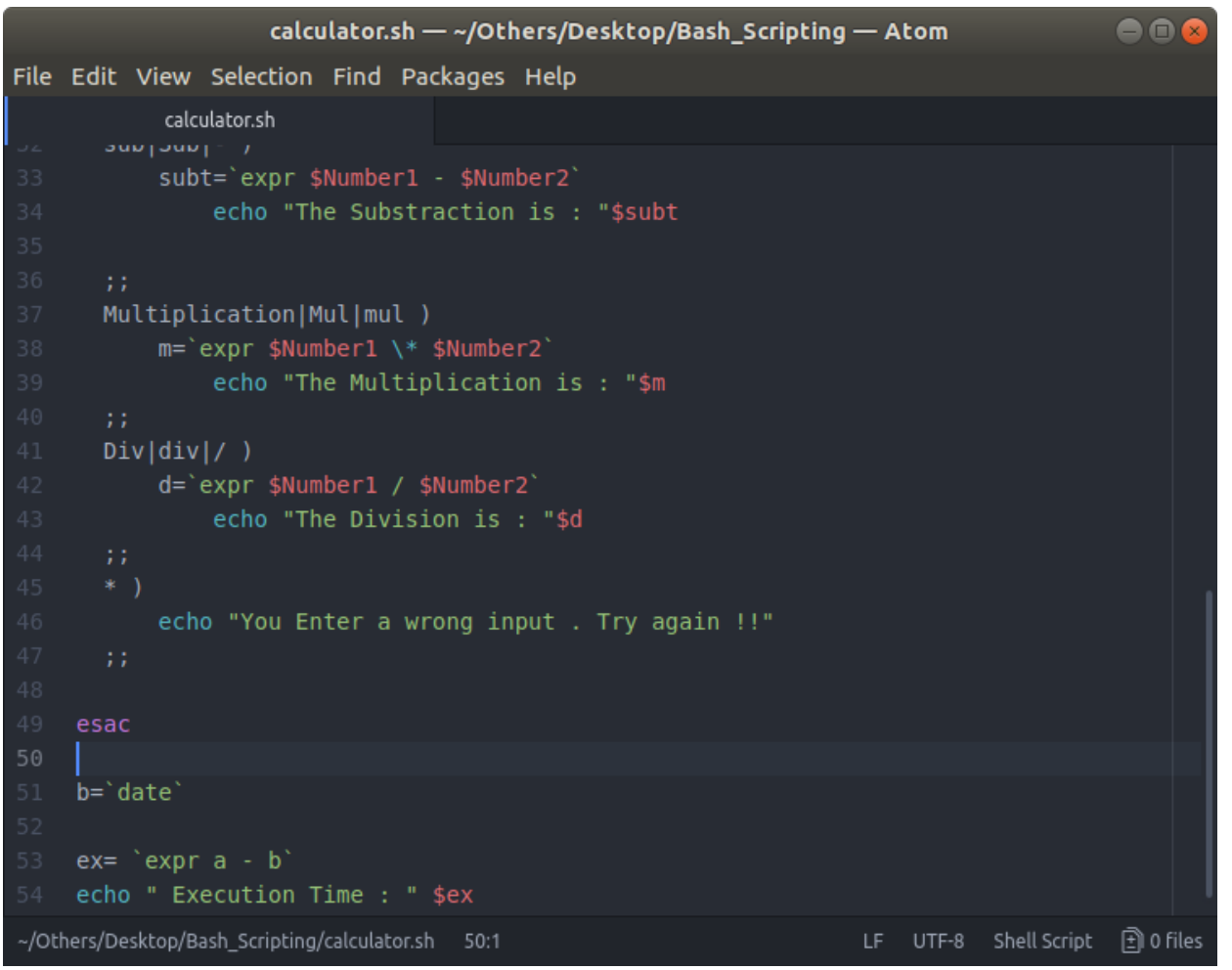
1st shot

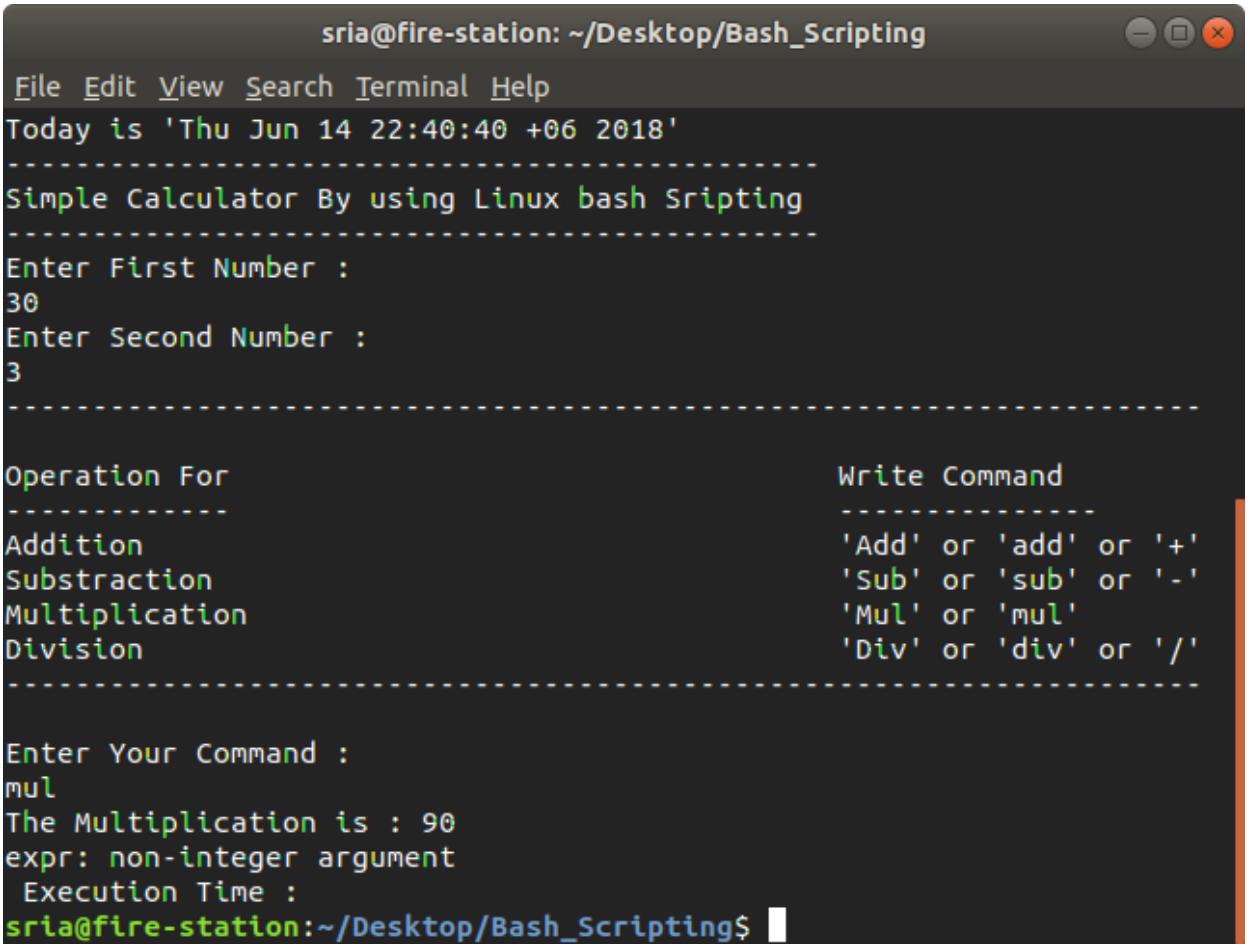


2nd shot



3rd shot





Above the picture , you have seen a simple calculator using Linux bash Scripting .

These stuffs only for beginners .

You should Try :

1. Write a bash Script which you give input as day and output a Year – month – day .
2. Find Leap year by giving input a year.
3. Using If else find the greatest or smallest number by giving input two numbers .

You will find more problems in google.

NB. Bash Script takes everything as a String .