



## Starting a Shell, Create your first script - Hello World

**Shell Scripts** are written using text editors. On your Linux system, open a text editor program, open a new file to begin typing a shell script or shell programming, then give the shell permission to execute your shell script and put your script at the location from where the shell can find it.

Let us understand the steps in creating a Shell Script:

1. **Create a file using a vi editor** (or any other editor).  
Name script file with **extension .sh**
2. **Start** the script with **#!/bin/sh**
3. Write some code.
4. Save the script file as filename.sh
5. For **executing** the script type **bash filename.sh**

"#!" is an operator called shebang which directs the script to the interpreter's location. So, if we use "#!/bin/sh" the script gets directed to the bourne-shell.

**Let's create a small script –**

```
#!/bin/sh
```

```
ls
```



Let's see the steps to create Shell Script Programs in Linux/Unix –

Creating a new script file scriptsample.sh

```
home@VirtualBox:~$ vi scriptsample.sh
```

Adding the command 'ls' after #!/bin/sh

```
#!/bin/sh
ls
```

Executing the script file

```
home@VirtualBox:~$ bash scriptsample.sh
abc      Desktop      newfile     samp
ABC      Documents    newt.txt    scri
ABC~     Downloads   Pictures    Temp
abc.bash examples.desktop Public      tes
abcd.sh  help        sample     tes
```

## Steps to Create Shell Script in Linux/Unix

Command 'ls' is executed when we execute the script sample.sh file.

### Adding shell comments

Commenting is important in any program. In Shell programming, the syntax to add a comment is

#comment



Let us understand this with an example.

Adding a comment

```
#!/bin/sh  
# sample scripting  
pwd
```

shell executes only the command

```
home@VirtualBox:~$ bash scriptsample.sh  
/home/home
```

It ignores the comment **# sample scripting**

## What are Shell Variables?

Variables store data in the form of characters and numbers. Similarly, Shell variables are used to store information and they can be by the shell only.

For example, the following creates a shell variable and then prints it:

```
variable="Hello"
```

```
echo $variable
```

Below is a small script that will use a variable.

```
#!/bin/sh
```

```
echo "what is your name?"
```

```
read name
```



echo "How do you do, \$name?"

read remark

echo "I am \$remark too!"

Let's understand, the steps to create and execute the script

## creating the script

```
#!/bin/sh
echo "what is your name?"
read name
echo "How do you do, $name?"
read remark
echo "I am $remark too!"
```

## running the scriptfile

```
home@VirtualBox:~$ bash scriptsample.sh
what is your name?
```

## entering the input

*script reads the name*

```
home@VirtualBox:~$ bash scriptsample.sh
what is your name?
Joy
How do you do, Joy?
```

## entering the remark

```
home@VirtualBox:~$ bash scriptsample.sh
what is your name?
Joy
How do you do, Joy?
excellent
I am excellent too!
```

*script repeats the remark*



## **Hello World in shell**

In this shell **script article** we are going to learn:

- shell script to print hello world in linux
- important linux commands like vi, echo, chmod required to print hello world in linux

**Shell Script** is a command-based language i.e list of commands given by the user and it executes one by one. File manipulation, program execution, and printing text are typical operations performed by it.

### **Points to note before we start**

- At first clear your screen to have clean and fresh terminal.
- You can either directly print Hello World or store it in a variable which is given by user and then prints it.
- You should save the program and give directory where your code will be saved.
- Use the execution command to give permission to execute code otherwise it will show error - permission denied or not given.
- Coder should use '#' to make a comment just like we use '//' in C, C++ and Java to make comments.



## Print hello world in shell script

Given below is hello world program in shell script:

```
#!/bin/sh
```

```
# This is a comment!
```

```
echo "Hello World"
```

```
# after save the code use chmod 755 file_name.
```

```
#instead of 755, you can use +x means to give permission  
for execution.
```

```
#or you can directly use bash file_name
```

**If you are using Linux os, you can directly goto terminal and run.**

hello world in shell script compile steps

First create a file as we do in hard disk or you can directly create file via terminal. I use vi command to 'vi helloworld.sh' where helloworld.sh is file name. Once typed press enter.

```
E ~
```

```
suraj@windows_10 ~  
$ vi helloworld.sh |
```



After above step, press **i** to insert your code and then type your code. After writing, press **esc key** and then type **':wq'** to save and quit.

A screenshot of a Windows 10 desktop. A black terminal window is open, displaying the command 'echo "Hello world"' in white text. The command prompt shows a series of tilde characters (~) indicating the current directory. At the bottom of the screen, the Windows taskbar is visible, featuring the Start button and various application icons including File Explorer, Edge, and several instances of the terminal. The system tray on the right shows the date and time as 12/11/2019, 12:00 PM.

Now its time to execute our program.

Type **chmod +x file\_name**. Here filename is helloworld.sh. And then press enter.

```
suraj@windows_10 ~  
$ vi helloworld.sh  
  
suraj@windows_10 ~  
$ chmod +x helloworld.sh |
```



After you press enter, your cursor will come on the next line as shown in below image.

```
E~  
suraj@windows_10 ~  
$ vi helloworld.sh  
  
suraj@windows_10 ~  
$ chmod +x helloworld.sh  
  
suraj@windows_10 ~  
$ |
```

Now type `./file_name` and then enter

```
E~  
suraj@windows_10 ~  
$ vi helloworld.sh  
  
suraj@windows_10 ~  
$ chmod +x helloworld.sh  
  
suraj@windows_10 ~  
$ ./helloworld.sh |
```

You can see below image that hello world is printed successfully in shell script.





```
suraj@windows_10 ~  
$ vi helloworld.sh  
  
suraj@windows_10 ~  
$ chmod +x helloworld.sh  
  
suraj@windows_10 ~  
$ ./helloworld.sh  
Hello world
```

This completes the steps on hello world in shell script.

Explanation to hello world in shell script

Given below is hello world program in shell script explanation:

- **'echo'** is used to print helloworld.
- **'vi'** is used to create file.
- **'chmod +x file\_name'** or **'chmod 755 file\_name'** is used to give permission for execution.
- **'./file\_name'** is used to execute program.