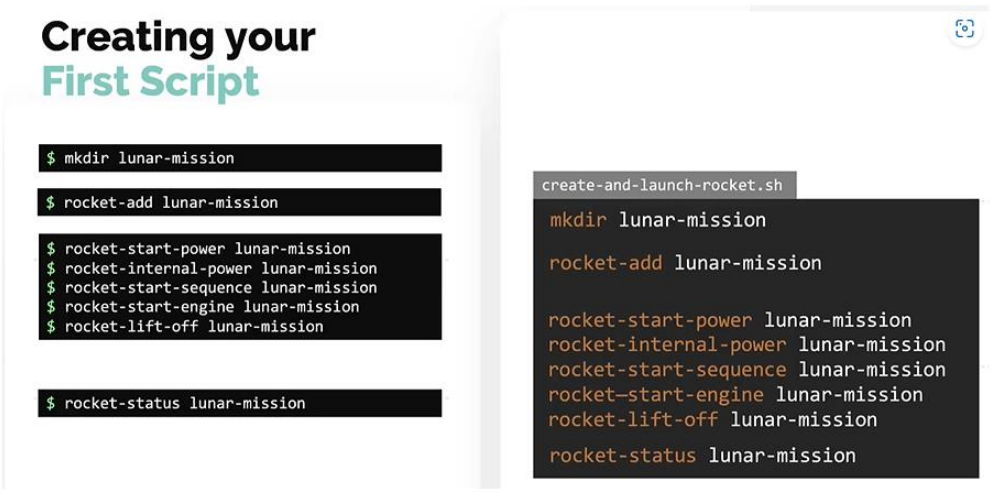
Creating your first shell script

In this section, we will take a look at creating your first shell script.

To Create a shell script name create-and-launch-script.sh

```
$ vi create-and-launch-script.sh
```



Run script as command

- There are different ways to execute a shell script
  - Execute a shell script with `bash` command

    ```
    $ bash create-and-launch-script.sh
    ```

  - Execute a shell script as an `executable`

    ```
    $ create-and-launch-script.sh
    ```

    `Note` : It is a best practice to not name your script with the `.sh` extension when you would like to create an executable of a script.

    ```
    $ create-and-launch-script
    ```

Configure a script to run as command

- Whenever a command is run at a linux system, the O.S looks at the path configured in the `$PATH` environment variable to locate the executable or script for the command.
- If it cannot find the command in the `$PATH` then a `command not found` error will be thrown.
- To add our script as a command, append the path to the directory containing the script to the end of the $PATH variable.

  ```
  $ export PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/home/michael
  ```

- A better way to do this is to append the path to the directory to $PATH variable

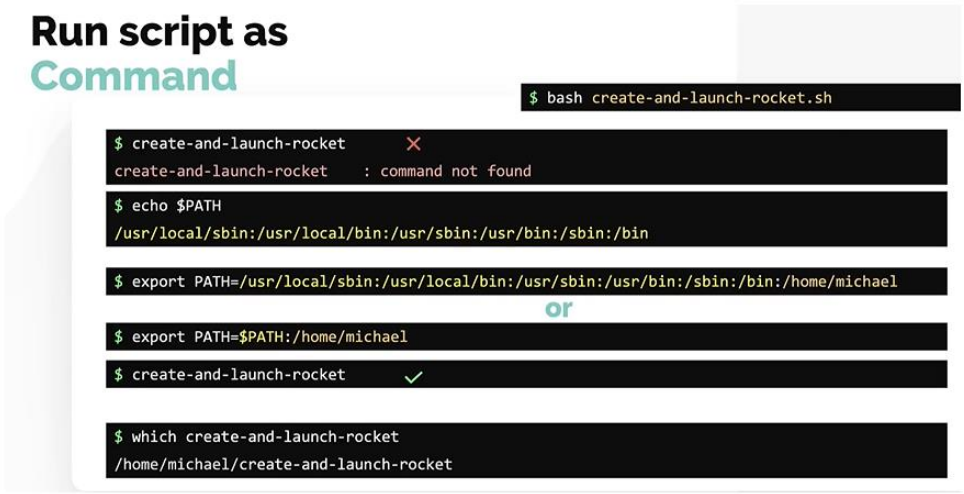
  ```
  $ export PATH=$PATH:/home/michael
  ```

- Run the command

```
$ create-and-launch-script
```

- To see the location of the command

```
$ which create-and-launch-script
```



Executing a script

- For a shell script to work, we must set the correct permissions to the file, if the permissions are not set a "Permission Denied" error will be thrown when you run the script for the first time.
- Inspect the file permissions

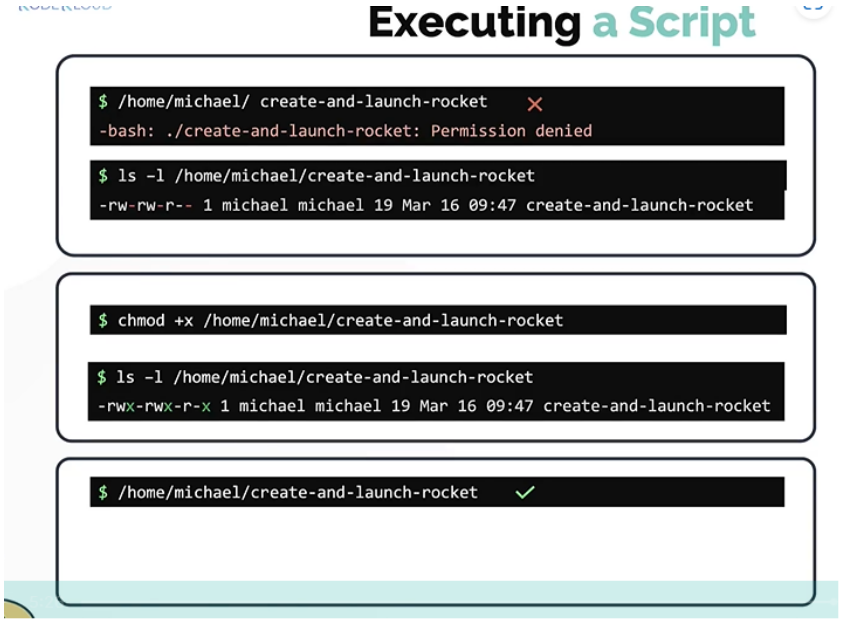
```
$ ls -l /home/michael/create-and-launch-script
```

- Add executable permissions to a file and then inspect the file to check if it got write permissions.

```
$ chmod +x /home/michael/create-and-launch-script
$ ls -l /home/michael/create-and-launch-script
```

- Now, run the script

```
$ /home/michael/create-and-launch-script
```



Best Practices