

100% working Guide for Assignment # 1  
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Course: Operating System Fall 2022

```
$ uname -r
```

Go to [www.kernel.org](http://www.kernel.org)

Copy the link of latest stable version of kernel, I used 5.19.11 having this URL  
<https://cdn.kernel.org/pub/linux/kernel/v5.x/linux-5.19.11.tar.xz>

Upto installing libraries, you should be connected to good internet connection.

```
$ wget <link of kernel version to download>
```

```
$ tar xvf linux-5.19.11.tar.xz
```

```
$ sudo apt-get update
```

```
$ sudo apt-get upgrade
```

```
$ sudo apt-get build-essential
```

Once again do update and upgrade to see if recently installed tools related build has any further updates.

```
$ sudo apt-get update
```

```
$ sudo apt-get upgrade
```

```
$ sudo apt-get install git fakeroor build-essential ncurses-dev xz-utils libssl-dev bc flex libelf-  
dev bison
```

Make sure there is no issue in above libraries while installing, try to see the log which is being created.

```
$ cd linux-5.9.6
```

```
$ cp -v /boot/config-$(uname -r) .config
```

```
$ make menuconfig
```

```
$ make
```

```
$ sudo make modules_install
```

```
$ sudo make install
```

```
$ sudo update-initramfs -c -k 5.19.11
```

```
$ sudo update-grub
```

```
$ reboot
```