

Cuda Code Practical:

System installation commands:

1. **sudo apt update**
2. **sudo apt install nvidia-cuda-toolkit**
3. **lspci | grep -i nvidia**
4. **nvidia-smi**
5. **sudo ubuntu-drivers autoinstall**
6. **sudo reboot**
7. **nvidia-smi**

If Successfully installed this output appear:

comp701@comp701-System-Product-Name:~/BEA26\$ nvidia-smi

Sat Apr 26 10:20:03 2025

```
+-----+
| NVIDIA-SMI 470.182.03   Driver Version: 470.182.03   CUDA Version: 11.4     |
+-----+-----+-----+
| GPU  Name            Persistence-M| Bus-Id        Disp.A | Volatile Uncorr. ECC |
| Fan  Temp  Perf  Pwr:Usage/Cap|      Memory-Usage | GPU-Util  Compute M. |
|               |              | MIG M. |
+=====+
====|
|  0  NVIDIA GeForce ...  Off | 00000000:01:00.0 N/A |           N/A |
| N/A   52C    P8      N/A /  N/A |   145MiB / 1993MiB |   N/A   Default |
|               |              |           N/A |
+-----+-----+-----+

+-----+
| Processes:                                |
| GPU  GI  CI           PID Type   Process name                  GPU Memory |
|      ID  ID                                   Usage             |
+=====+
====|
| No running processes found              |
+-----+
```

Code :

1. **gedit filename.cu**
2. **nvcc filename.cu -o filename**
3. **./filename**