Make Extra Disk Space for Kernel Build

This documentation is an add-on the documentation to compile the linux kernel module from the source which can be found here

The kernel usually requires a lot of space to build. The kernel in itself is not of very large size. You can even reduce the size of kernel *itself* by not selecting the drivers you do not need for yourself.

It is advised to have at least 4Gb of space on your disk before starting the kernel build.

You can make an extra filesystem on your disk using the following command.

\$ sudo /usr/testbed/bin/mkextrafs /mnt

This command will create an extra filesystem on your disk mounted on /mnt.

You can cd to /mnt and start building the kernel (or any other work you wanted space for.

| \$ df -h | | | | | |
|---|------|------|-------|------|--------------------|
| Filesystem | Size | Used | Avail | Use% | Mounted on |
| udev | 32G | 0 | 32G | 0% | /dev |
| tmpfs | 6.3G | 8.9M | 6.3G | 1% | /run |
| /dev/nvme0n1p1 | 16G | 2.2G | 13G | 15% | / |
| tmpfs | 32G | 0 | 32G | 0% | /dev/shm |
| tmpfs | 5.OM | 0 | 5.OM | 0% | /run/lock |
| tmpfs | 32G | 0 | 32G | 0% | /sys/fs/cgroup |
| ops.utah.cloudlab.us:/proj/cloudlab-PGO | 100G | 24G | 77G | 24% | /proj/cloudlab-PGO |
| ops.utah.cloudlab.us:/share | 97G | 10G | 80G | 12% | /share |
| tmpfs | 6.3G | 0 | 6.3G | 0% | /run/user/20001 |
| /dev/nvme0n1p4 | 213G | 60M | 203G | 1% | /mnt |

NOTE: This command will make the filesystem of different sizes every time you use it on different machines

The explanation for df -h can be found in the documentation mentioned before.

Cheers!!

Credits:

1. Fraida Fund, NYU