Project 1: Getting Acquainted

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Group #39

Abstract

Abstract here.

I. Log of Commands

1) cd /scratch/fall2017
2) mkdir 39
3) cd /scratch/fall2017/39
4) git clone git://git.yoctoproject.org/linux-yocto-3.19
5) cd linux-yocto-3.19
6) git status - to confirm we are on tag v3.19.2
7) cd ..
8) source /scratch/files/environment-setup-i586-poky-linux.csh
9) qemu-system-i386 -gdb tcp::5539 -S -nographic -kernel bzImage-qemux86.bin -drive file=core-image-lsb-sdk-qemux86.ext4,if=virtio -enable-kvm -net none -usb -localtime –no-reboot –append ”root=/dev/vda rw console=ttyS0 debug”
10) gdb (in new terminal tab)
11) (gdb) target remote: 5539
12) (gdb) c
13) root (in VM)
14) cp /scratch/files/config-3.19.2-yocto-qemu /scratch/fall2017/39/linux-yocto-3.19/.config
15) make -j4 all
16) qemu-system-i386 -gdb tcp::5539 -S -nographic -kernel linux-yocto-3.19/arch/x86/boot/bzImage -drive file=core-image-lsb-sdk-qemux86.ext4,if=virtio -enable-kvm -net none -usb -localtime –no-reboot –append ”root=/dev/vda rw console=ttyS0 debug”
17) gdb (in new terminal tab)
18) (gdb) target remote: 5539
19) (gdb) c
20) root (in VM)

II. Explanation of Qemu Flags

- -gdb

  This enables the debug mode.
- tcp::5539

  This specifies the port.
- -S

  This tells the CPU to not start right at startup.
- -nographic

  This disables graphics which makes qemu only display on the command line.
- -kernel

  This is where the kernel file location is defined.
- -drive file=¡¿

  This is where the file that will be used for the virtual disk is defined.

- if=virtio
- -enable-kvm

  This enables KVM virtualization and is the reason the VM boots so quickly.
- -net none

  This says there should be no network devices configured.
- -usb

  This enables the USB driver.
- -localtime

  Set the CPU at local time.
- –no-reboot

  Don't reboot qemu, just exit.
- –append "root=/dev/vda rw console=ttyS0 debug"

  This tells qemu to launch in debug mode.

III. Concurrency Write Up

1) What do you think the main point of this assignment is?
2) How did you personally approach the problem? Design decisions, algorithm, etc.
3) How did you ensure your solution was correct? Testing details, for instance.
4) What did you learn?

IV. Version Control Log

V. Work Log