ASSIGNMENT 1 WRITE UP

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CS444 FALL 2017

ROHIT CHAUDHARY
AKASH SHARMA

Abstract

In this document, we go over the different parts of assignment 1. We will go over the steps needed to perform the request actions as required by the assignment. Then, we explain the different flags part of the qemu command-line statement. Then, we will discuss our solution to the concurrency problem answering all the required questions. Finally, we include our version control and work logs.

CONTENTS

1 LOG OF COMMANDS

List of commands:

cd ../../../../scratch/fall2017

mkdir 27

cd 27

git init

git clone git://git.yoctoproject.org/linux-yocto-3.19

cd linux-yocto-3.19

git checkout tags/v3.19.2

git remote set-url origin https://github.com/sharma-akash/OS2

cd ../../../files

source environment-setup-i586-poky-linux.csh

cp bzImage-qemux86.bin ../fall2017/27

cp core-image-lsb-sdk-qemux86.ext4 ../fall2017/27

cp config-3.19.2-yocto-standard../fall2017/27/linux-yocto-3.19

cd ../fall2017/27/linux-yocto-3.19

mv config-3.19.2-yocto-standard .config

make -j4 all

cd ..

qemu-system-i386 -gdb tcp::5527 -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

Open new window and connect to the server

Gdb

Target remote :5527

Continue

2 QEMU COMMAND-LINE FLAGS

-gdb tcp::??? Initialize a GDB stub at port ???

-S Manually start the CPU

-nographic No graphics for Qemu, only command line

-kernel Set the kernel file image

-drive Add a drive, we add from a file

-enable-kvm Enable KVM virtualization

-net Configure network devices, we set none

-usb Enable usb to add usb devices

-localtime Set what the current time is for the kernel

–no-reboot Don't reboot, just exit

-append defines the command line for the kernel

3 CONCURRENCY WRITE UP

lmao

4 VERSION CONTROL LOG

e9411b8	Added Makefile, mersenne, some small changes
ce34cbb	removing temp file
f12ca65	initial commit for concurrency code
b108951	Adding code_repo

5 WORK LOG

10/5 - Created the folder for the group, pulled the code and created a repo

10/6 - Built the kernel, ran the VM

10/7 - Started working on concurrency code

10/8 - Implemented mersenne, continued working on other parts of concurrency