

## **Writeup 1**

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### **Abstract**

This first write up describes important details from the completion of Project 1 for D. Kevin McGrath's Operating Systems II class. Topics from Project 1 that are to be covered in this work include the building of the Linux Yocto kernel on Oregon State's engineering server, usage of the qemu virtual machine, and a solution of the Producer-Consumer concurrency problem using the C programming language's POSIX threads execution model.

# Contents

<b>1</b>	<b>Log of Commands to Build Yocto Kernel</b>	<b>2</b>
<b>2</b>	<b>Log of Commands to Load Qemu</b>	<b>2</b>
<b>3</b>	<b>Flags in the listed Qemu command line</b>	<b>2</b>
<b>4</b>	<b>Concurrency Writeup</b>	<b>2</b>
<b>5</b>	<b>Reflection</b>	<b>2</b>
5.1	Main point of assignment . . . . .	3
5.2	Personal approach to problem . . . . .	3
5.3	Ensuring solution was correct . . . . .	3
5.4	What I learned . . . . .	3
<b>6</b>	<b>Version control log</b>	<b>3</b>
<b>7</b>	<b>Work log</b>	<b>3</b>

# 1 Log of Commands to Build Yocto Kernel

put code here

## 2 Log of Commands to Load Qemu

### 3 Flags in the listed Qemu command line

The listed Qemu command line is:

```
qemu-system-i386 -gdb tcp::???? -S -nographic -kernel bzImage-qemux86.bin -drive file=c
```

The following list describes each flag:

- *qemu-system-i386* is an executable module that launches system-mode emulations of PC-type CPU hardware.
- *-gdb*
- *tcp::????*
- *-S*
- *-nographic*
- *-kernel*
- *bzImage-qemux86.bin*
- *-drive*
- *file=core-image-lsb-sdk-qemux86.ext3,if=virtio*
- *-enable-kvm*
- *-net*
- *none*
- *-usb*
- *-localtime*
- *-no-reboot*
- *-append*
- *"root=/dev/vda rw console=ttyS0 debug"*.

## 4 Concurrency Writeup

## 5 Reflection

The following subsections answer the four questions as outlined on the Project 1 page on Kevin McGrath's course website.

- 5.1 Main point of assignment
- 5.2 Personal approach to problem
- 5.3 Ensuring solution was correct
- 5.4 What I learned
- 6 Version control log
- 7 Work log