IIT PALAKKAD

Indian Institute of Technology Palakkad
Department of Computer Science and Engineering
Operating Systems - Jul to Nov 2020
05 October 2020

Instructions:

- *You can do the assignment in groups of up to 2 students. If you wish to, you can also do the assignment individually.*
- *Create a private repository on bitbucket (https://bitbucket.org/) for this course, and share it with the instructor by giving him read permissions only. (Use the instructor's official email address sa**********an@iitpkd.ac.in for this purpose).*
- *Add the base xv6 code and commit into your repository.*
- *Create a branch named "lab4" in your repository.*
- *Do the assignment, commit and push your changes when you are done.*
- *Submission deadline: 12-Oct, 2020 23:59 hrs.*

NOTE: The assignment is same the Exercise 1 given at:
https://moss.cs.iit.edu/cs450/assign02-xv6-syscall.html

1. In this assignment, you have to add a new system call named **`getcount`**. The **`getcount()`** system call should take a valid system call number (listed in the file **`syscall.h`**) as an argument, and should return the number of times the referenced system call was invoked by the calling process. Look at the link given above for a sample input and its corresponding output. You may also want to look at the Hints section of Exercise 1 given in the link.

   You should write your own test program **`get_syscall_counts.c`** (a user program along similar lines given in the link). Edit the Makefile appropriately so that your user program is compiled and bundled into the xv6 image. (The instructions given in the link on editing the Makefile will not work in your case).

   To evaluate the submission, the instructor will do the following:

   - pull your changes
   - run the command **`make qemu-nox`**
   - In the command prompt of (booted) xv6, type **`get_syscall_counts`**
   - For grading purposes, the instructor will replace your **`get_syscall_counts.c`** with different programs (each making different system calls internally).