ITBU 373, Operating Systems Homework 27

Chapter 33, *Operating Systems, Three Easy Pieces*

Readings

Read chapter 33 in the *Operating Systems, Three Easy Pieces* book.

Discussion Questions

Answer the discussion questions in writing.

1. (not in book) What is *event driven programming*? What is a language commonly used for event-driven programs? What is a typical application for event-driven programs?
2. What is an *event loop*?
3. What are the arguments to `select()`? What is the return value? What is it used for?
4. What are the arguments to `poll()`? What is the return value? What is it used for?
5. What do the following macros do: `FD_ZERO`, `FD_SET`, `FD_CLR`, and `FD_ISSET`?
6. Why are no locks needed for an event-driven program running on one CPU?
7. What is an issue if an event requires that you issue a system call that mght block?
8. Describe generally how *asychronous I/O* works. You do not need to go into detail.
9. What is *manual stack management*?
10. This article, "By example: Continuation-passing style in JavaScript", `https://matt.might.net/articles/by-example-continuation-passing-style/` contains seveeral examples of continuations in various contexts. Choose one example and explain how the continuation works. Note that JavaScript is a single threaded language.