

CS590 Homework #4
Due: Thursday, July 22, 2010

1. Write a program to read input from stdin, and distribute that input to several sub-processes via various IPC mechanisms.

The main processes will fork four sub-processes (A, B, C, D), and will communicate as follows:

- The main process will read input from stdin, and forward that input to a sub-process. The first character of an input line will indicate where to send the data.

For example, “A This is a test” would send the data “This is a test” to process A.
- Each process (A, B, C, D) will open a separate output file to store any data that is sent to it.
- Main and Process A will communicate via a standard UNIX pipe
- Main and Process B will communicate via a named pipe.
- Main and Process C will communicate via a System V style shared memory segment.
- Main and Process D will communicate via a System V style message queue