

Systems Programming

Hand-written Assignment 5

B05902118 資工二 陳盈如

| | Model 1 | Model 2 |
|-----------|---|---|
| Section A | <pre>int fid[4][2]; int change, get = 0; int maxfd = getdtablesize(); char buffer[3][100]; fd_set rset, rset_copy; FD_ZERO(&rset); FD_ZERO(&rset_copy);</pre> | <pre>int fd[2]; pipe(fd);</pre> |
| Section B | <pre>pipe(fd[i]);</pre> | |
| Section C | <pre>dup2(fd[i][1], 1); close(fd[i][0]); close(fd[i][1]);</pre> | <pre>dup2(fd[1], 1); close(fd[0]); close(fd[1]);</pre> |
| Section D | <pre>close(fd[i][1]); FD_SET(fd[i][0], &rset);</pre> | |
| Section E | <pre>t.tv_sec = 0; t.tv_usec = 0; while (get != 3) { rset_copy = rset; change = select(maxfd, &rset_copy, NULL, NULL, &t); if (change <= 0) continue; for (int i = 1; i <= 3; i++) { if (FD_ISSET(fd[i][0], &rset_copy)) { read(fd[i][0], buffer, sizeof(buffer)); get++; } } } wait(); wait(); wait();</pre> | <pre>close(fd[1]); char buffer[100]; read(fd[0], buffer, sizeof(buffer)); wait(); wait(); wait();</pre> |

| memory address | memory sections/segments |
|----------------|----------------------------|
| &a | initialized data segment |
| b | uninitialized data segment |
| &argc | command-line arguments |
| &c | stack |
| &d | stack |
| &e | stack |
| &f | stack |
| f | heap segment |
| main | text segment |
| printf | text segment |