Soumyadip Pyne 197178 CSE A

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No. of Process → 1 B
1 D
multiple W
multiple C

Process → ./B ./D ./W1 ./W2
./C1, ./C2 (other pc)

IPC → BSD, UDS,

Special BSD calls → sendmsg, recvmsg, recv, send, socket, bind, listen, connect, accept,

I/O Mux → poll (D polls on different mfds)

Signal → yes.

SIGUSR1 by W to B. for informing items are confirmed.

FD passing →

fd name → mfd[i] from B to W
fd-name → mfd[i] from B to D,

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Steps

1. Customer connects to Billing Perm B using sfd
2. After informing choice and payment through sfd, B using UDS sends the mfd to Waiter W. B may also give C a number token.
3. Waiter takes menu items from mfd of customer and signals (SIGUSR1) to B.
4. On being signalled by W, B sends the mfd to Delivery by D.
5. W and D is also connected through socket, through which W sends parcell with the name of customer (mfd) number
6. Customer can send its number ~~(mfd)~~ in the sfd which it has been given by B.
7. D matches customer's ~~xxx~~ number with num provided by W and delivers parcel through mfd.

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Billing Person

Pseudo-code

- Creates sfd using socket(), bind(), listen()
- accepts customer accept() in nsfd.
- takes order and payment (recv(sfd, buf, 1024, 0);)
- given a unique token to customer (send(sfd, buf, 1024, 0);)
- sends nsfd to Waiter via UDS (nusfd) → send_fd()
- when signalled by UDS (SIGUSR1)
  ↳ sends nsfd to D

W

- Creates usfd (UDS) and connect to B,
- recieves the customer nsfd by recv_fd()
- once read the items SIGUSR1 to B.
- Then prepares parcel
- and send to D by another BSD with unique token of customer.

Payra.

D

- receives mfd through UDS, mfd from B.
- Polls over mfds.
- receives parcells with token from W, through normal BSD.
- if token matches customer, gives parcell to mfd w.r.t closes.