

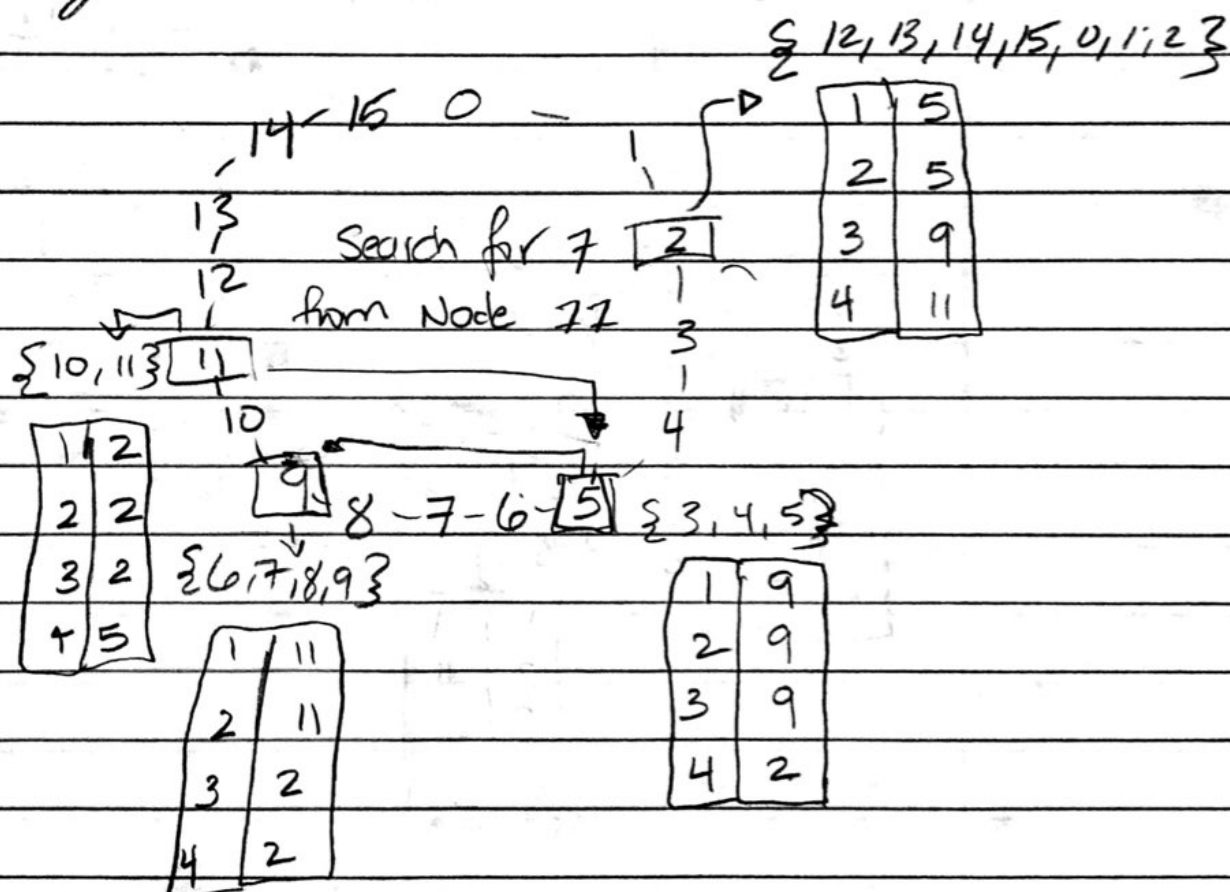
Homework #3 Answers:

Yousef Jorraj
Dr. Tong Yu

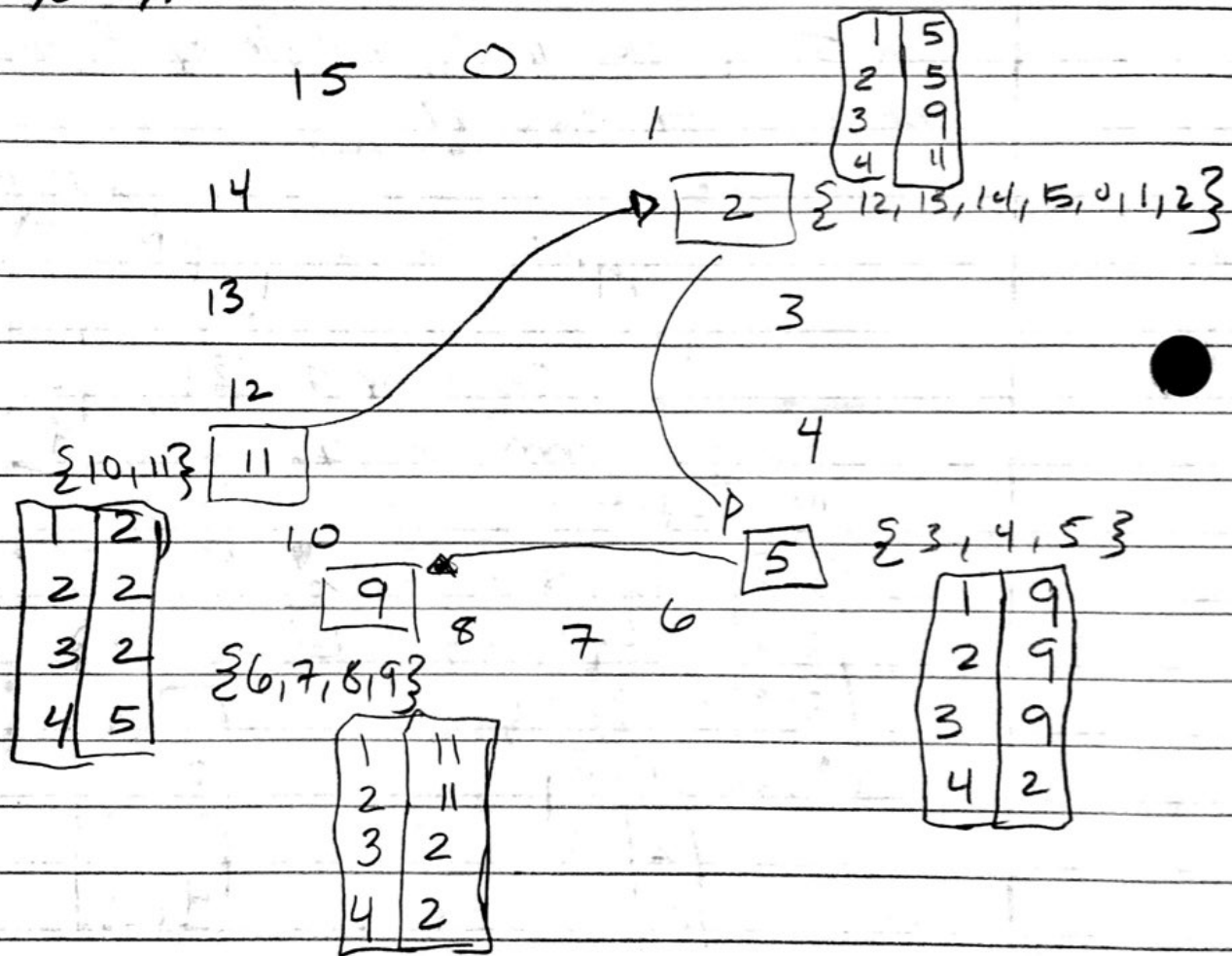
#1 Answer:

Search the linear from node "11" which will go in sequence $11 \rightarrow 5 \rightarrow 9$

- Node 11 checks the finger table and finds that $5 < 7$
- It checks in finger table of 5 and finds 7 belongs to node 9.



- There is another route from node 11 to 2 as $2 \leftarrow 7$
- Check node 2's table, when we find $5 \leftarrow 7$ and move to node 5
- check node 5 finger table for 7 which belongs to 9.



(#2) A: Both of the addresses ARE LOCATION INDEPENDENT because their names can't tell us where the locations are.

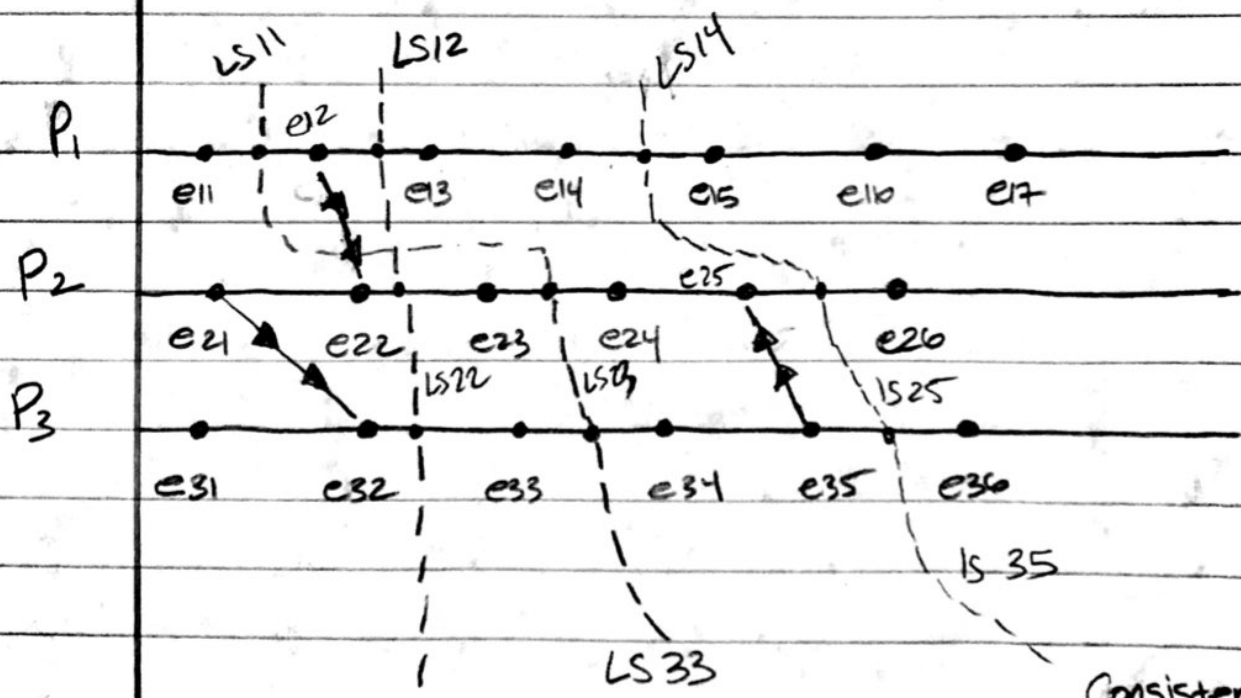
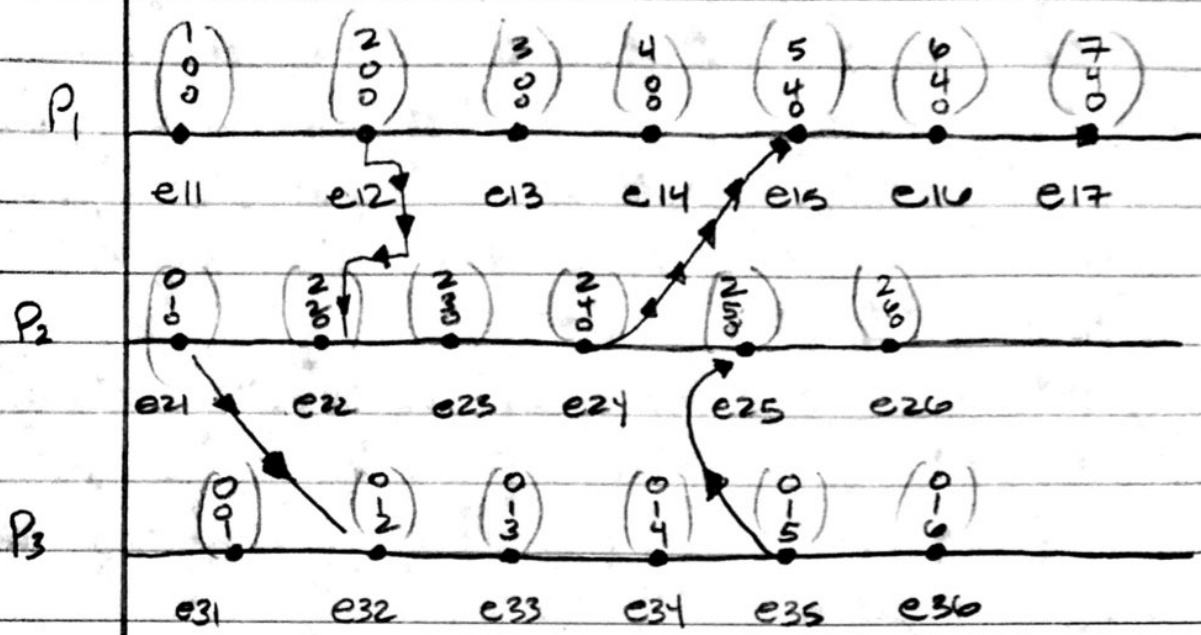
- Sometimes domains contain hints to where they belong, but not always.

B: $1000 \text{ times/msec} = 60,000,000 \text{ times/min} \text{ --- } 1$

$990 \text{ times/msec} = 59,400,000 \text{ times/min} \text{ --- } 2$

- So subtracting 2 from 1 we get a skew value
→ Maximum clock skew is $600,000 \text{ times/min}$.

(#3) All situations are satisfied b/c: if a, b are in the same process, d value is not affected or immaterial.
if a is in P_i and b is in P_j , then
→ $C_j(b) = \max(C_j(b), t_m + d)$ which $t_m = C_i(a)$
or ALL k , $C_j(b)[k] = \max(C_j(b)[k], t_m[k])$
which $t_m[k] = C_i(a)$



STRONGLY
CONSISTENT
LS12, LS22, LS32

inconsistent
LS11, LS23,
LS33

Consistent
but NOT
strongly
consistent

LS14, LS25, LS35