```
sendto (sk, msg, strlen (msg)+1, 0,
        &remote, sizeof (remote));

read (sk, buf, BUFMAX);
printf ("%s\n", buf);
```

Ch 5 Naming

Dist. Hash Table

determine fixed

m-bit

usually $m = 128$. 2^{128}

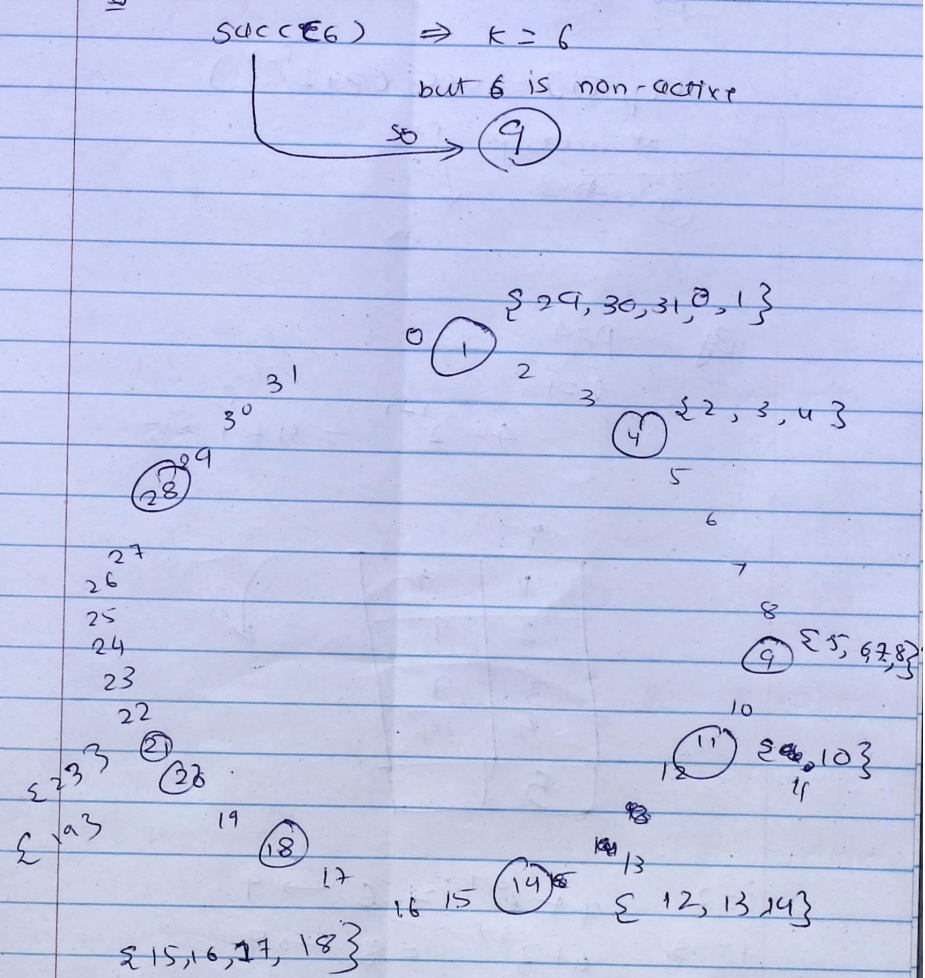
$m = 160$ <<

assume $m = 5 \Rightarrow 2^5 = 32$

succ(k):

An entity with key k fall under the jurisdiction of the node with the smallest identifier $id \geq k$

active.



Finger table at each active node.

$FT_p[i] = succ(p + 2^{i-1})$

at node p, $i = 1, 2, \ldots, m$

(m entries)

eg $p = 4$

$i = 1$

$4 + 2^{1-1} = 4 + 1 = 5$

i	
1	9
2	9
3	9
4	14
5	

$i = 2$ $\quad 4 + 2^{2-1} = 6 \rightarrow 9$

$i = 3$ $\quad 4 + 2^{3-1} = 8 \rightarrow 9$

$i = 4$ $\quad 4 + 2^{4-1} = 12 \rightarrow 14$

$i = 5 = 4 + 2^{2-5} = 20 \rightarrow$

1	1
2	1
3	1
4	4
5	14

$28 + 16 = 44$

$44 / 32 = 12$

To lookup a key k, node p will forward the request to node with index j in p's Finger table.

where $q = FT[j] \leq k < FT_p[j+1]$

or $q = FT[1]$ when $p < k < FT_p[1]$