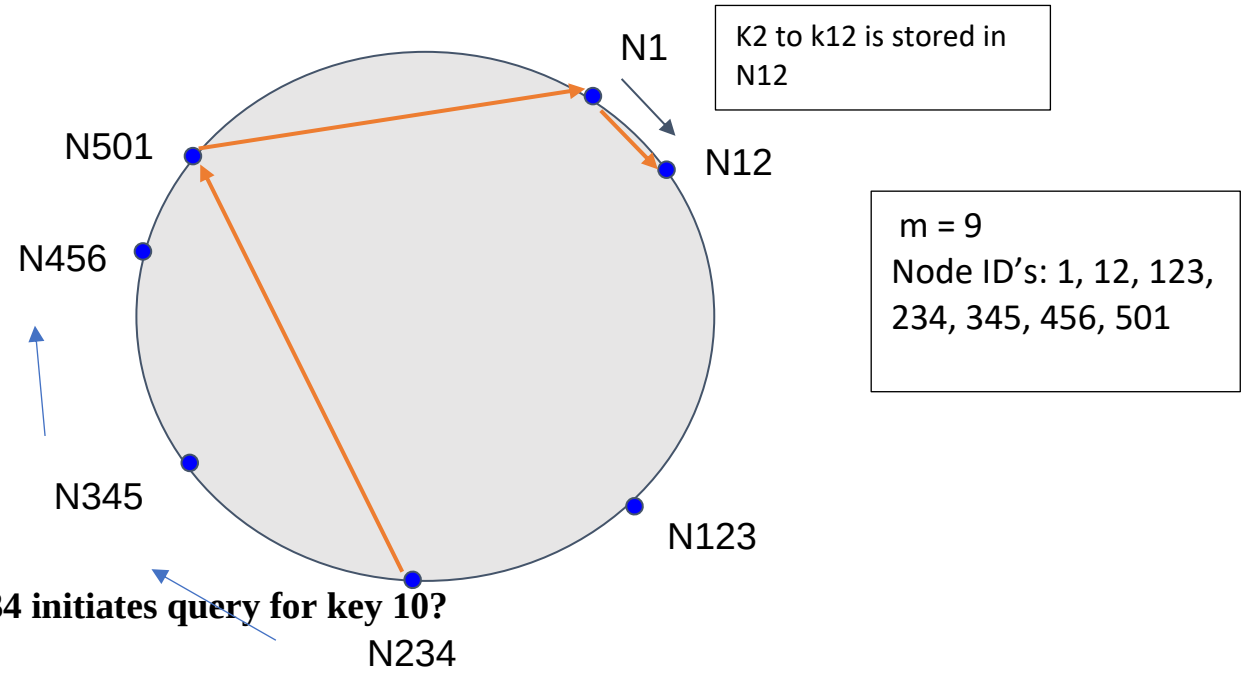
CHORD:

RING



STEP-1: **FINGER TABLE FOR N234**

i	$n+2^i \pmod{2^m}$	Node ID
0	234+1 = 235	345
1	234+2 = 236	345
2	234+4 = 238	345
3	234+8 = 242	345
4	234+16 = 250	345
5	234+32 = 266	345
6	234+64 = 298	345
7	234+128 = 362	456

8	234+256 = 490	501

RULE:

At node n,

RULE-1: if key k is between n and the successor of n, send query for key k to the successor.

RULE-2: Otherwise, send query for key k to the finger entry that most immediately precedes k using clockwise direction.

As per the **RULE-2**, N234 sends query K10 to N501.

STEP-2: FINGER TABLE FOR N501

i	**$n+2^i \pmod{2^m}$**	**Node ID**
0	501+1 = 502	1
1	501+2 = 503	1
2	501+4 = 505	1
3	501+8 = 509	1
4	517mod512 = 5	12
5	533mod512 = 21	123
6	565mod512 = 53	123
7	629mod512 = 117	123
8	757mod512 = 245	345

As per the **RULE-2**, N501 sends query K10 to N1.

STEP-3: **FINGER TABLE FOR N1**

i	$n+2^i \pmod{2^m}$	Node ID
0	1+1 = 2	12
1	1+2 = 3	12
2	1+4 = 5	12
3	1+8 = 9	12
4	1+16 = 17	123
5	1+32 = 33	123
6	1+64 = 65	123
7	1+128 = 129	234
8	1+256 = 257	345

As per the **RULE-1**, N1 sends query K10 to N12.

RESULT:

N12 has K10, so after three hopping's K10 is found by N234.