

3	-5	1	0	12	7	-7	10	3	8
---	----	---	---	----	---	----	----	---	---

(a,b) (c,d)  
(a,b)>(c,d)  
лексикографический порядок

-7	10	1	0	3	-5	3	8	12	7
----	----	---	---	---	----	---	---	----	---

-13	-5	1	10	12	17
-----	----	---	----	----	----

3
---

a[12314]

a[92341]

0 1 2 3 4 5

a['abba']=14

a['beatles']=157

md5('abba')=hash1

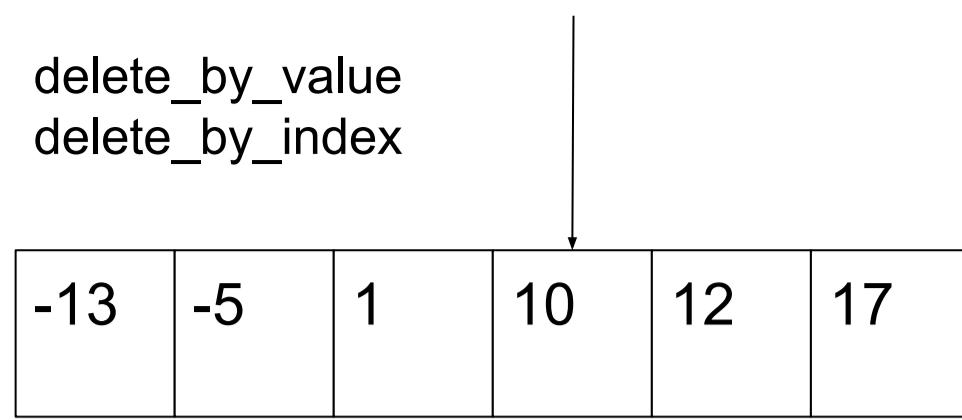
md5('beatles')=hash2

md5('queen')=hash2

hash1 hash2 hash2 hash3

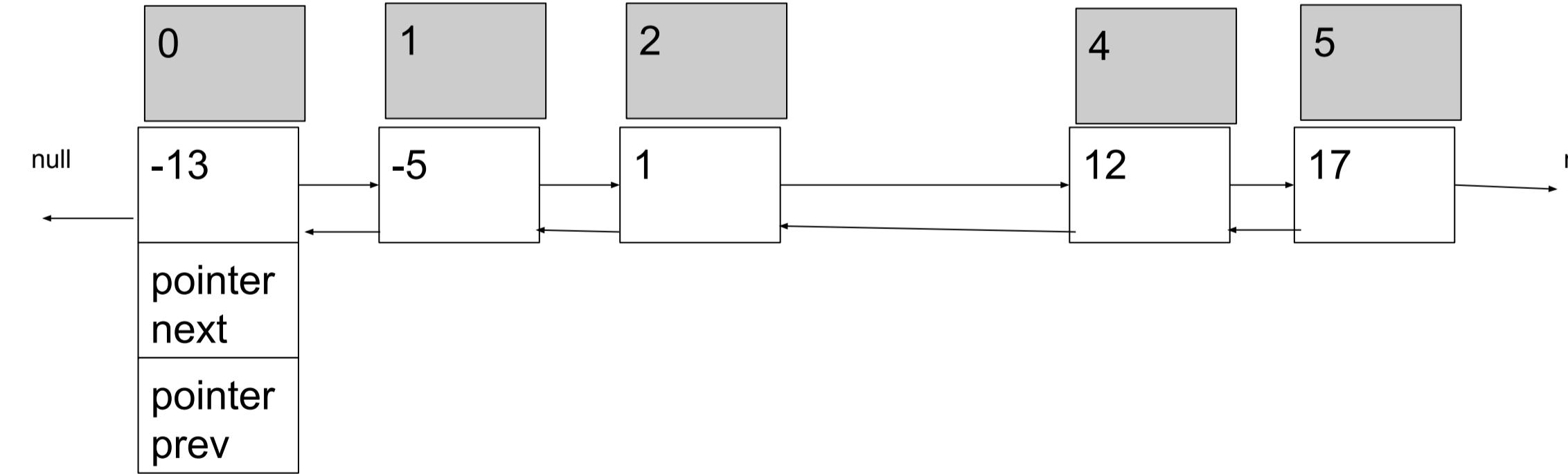
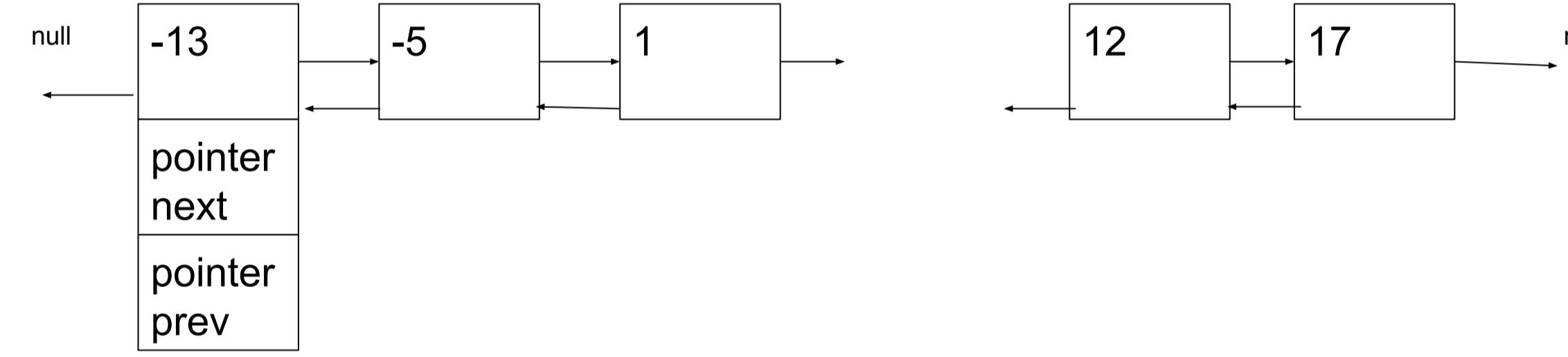
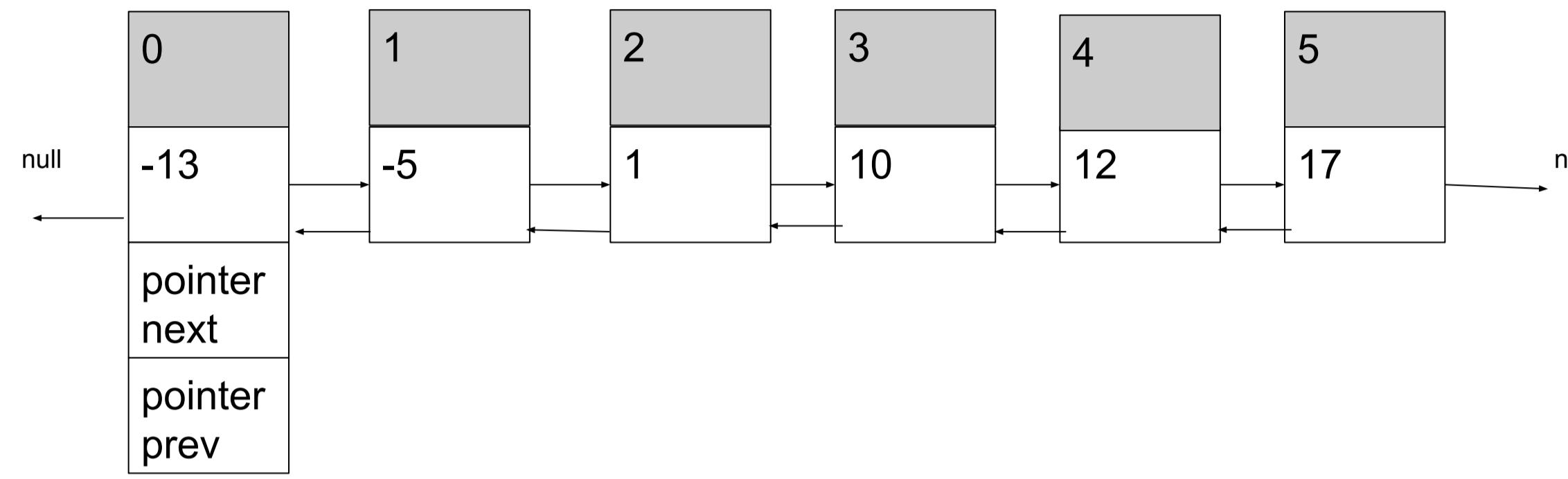
-7	10	1	0	3	-5	3	8	8	8
----	----	---	---	---	----	---	---	---	---

-7	10	3	8	8	8	3	8	8	8
----	----	---	---	---	---	---	---	---	---



долгий select  
быстрый delete/insert

быстрый select  
медленный delete/insert



0	1	2	3	4	5	6	7	8	9	10	11
---	---	---	---	---	---	---	---	---	---	----	----

$$\begin{aligned}
 &[(2+8)-((2+8)/2)\%2]/2=4 \\
 &[(2+6)-((2+6)/2)\%2]/2=4 \\
 &[(2+10)-((2+10)/2)\%2]/2=6 \\
 &[(2+4)-((2+4)/2)\%2]/2=2 \\
 &\text{finish-start}>2
 \end{aligned}$$

