

산타의 선물공장

key	box address
10	0
12	1
20	2
15	3
14	4
19	5
22	6
25	7
16	8
17	9
21	10
18	11

box_map

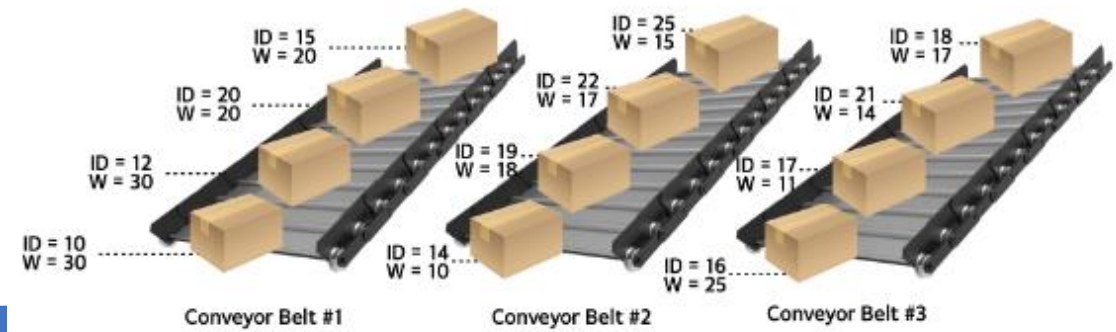
address	idx	weight	belt	prev	next
0	10	30	0	0 head	1
1	12	30	0	0	2
2	20	20	0	1	3
3	15	20	0	2	0 tail
4	14	10	1	1 head	5
5	19	18	1	4	6
6	22	17	1	5	7
7	25	15	1	6	1 tail
8	16	25	2	2 head	9
9	17	11	2	8	10
10	21	14	2	9	11
11	18	17	2	10	2 tail

BOX

address	is_broken	head	tail
0	FALSE	0	3
1	FALSE	4	7
2	FALSE	8	11

BELT

```
build_factory
weight {10: 30, 12: 30, 20: 20, 15: 20, 14: 10, 19: 18, 22: 17, 25: 15, 16: 25, 17: 11, 21: 14, 18: 17}
prv {12: 10, 20: 12, 15: 20, 19: 14, 22: 19, 25: 22, 17: 16, 21: 17, 18: 21}
nxt {10: 12, 12: 20, 20: 15, 14: 19, 19: 22, 22: 25, 16: 17, 17: 21, 21: 18}
head [10, 14, 16, 0, 0, 0, 0, 0, 0, 0]
tail [15, 25, 18, 0, 0, 0, 0, 0, 0, 0]
broken [False, False, False, False, False, False, False, False, False, False]
belt_num {10: 0, 12: 0, 20: 0, 15: 0, 14: 1, 19: 1, 22: 1, 25: 1, 16: 2, 17: 2, 21: 2, 18: 2}
```

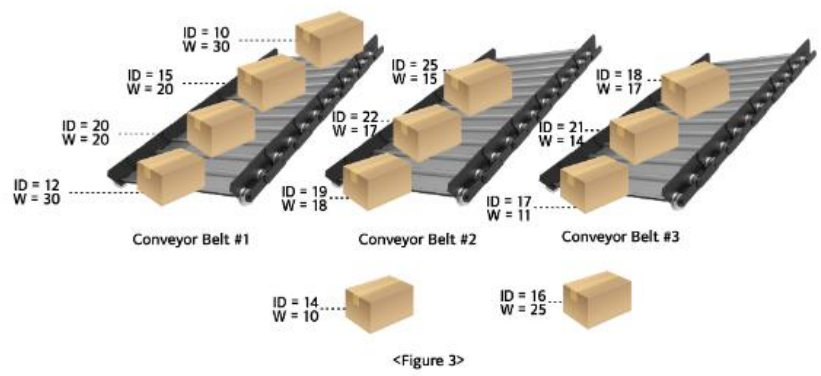


<Figure 2>

id	w	prv	nxt	belt_num
10	30		12	0
12	30	10	20	0
20	20	12	15	0
15	20	20		0
14	10		19	1
19	18	14	22	1
22	17	19	25	1
25	15	22		1
16	25		17	2
17	11	16	21	2
21	14	17	18	2
18	17	21		2

idx	0	1	2	3	4	5	6	7	8	9
head	10	14	16	0	0	0	0	0	0	0
tail	15	25	18	0	0	0	0	0	0	0

drop_off
weight {10: 30, 12: 30, 20: 20, 15: 20, 14: 10, 19: 18, 22: 17, 25: 15, 16: 25, 17: 11, 21: 14, 18: 17}
prv {12: 0, 20: 12, 15: 20, 19: 0, 22: 19, 25: 22, 17: 0, 21: 17, 18: 21, 10: 15, 14: 0, 16: 0}
nxt {10: 0, 12: 20, 20: 15, 14: 0, 19: 22, 22: 25, 16: 0, 17: 21, 21: 18, 15: 10}
head [12, 19, 17, 0, 0, 0, 0, 0, 0, 0]
tail [10, 25, 18, 0, 0, 0, 0, 0, 0, 0]
broken [False, False, False, False, False, False, False, False, False, False]
belt_num {10: 0, 12: 0, 20: 0, 15: 0, 14: -1, 19: 1, 22: 1, 25: 1, 16: -1, 17: 2, 21: 2, 18: 2}



id	w	prv	nxt	belt_num
10	30	15	0	0
12	30	0	20	0
20	20	12	15	0
15	20	20	10	0
14	10	0	0	-1
19	18	0	22	1
22	17	19	25	1
25	15	22		1
16	25	0	0	-1
17	11	0	21	2
21	14	17	18	2
18	17	21		2

idx	0	1	2	3	4	5	6	7	8	9
head	12	19	17	0	0	0	0	0	0	0
tail	10	25	18	0	0	0	0	0	0	0

remove
weight {10: 30, 12: 30, 20: 20, 15: 20, 14: 10, 19: 18, 22: 17, 25: 15, 16: 25, 17: 11, 21: 14, 18: 17}
prv {12: 0, 20: 12, 15: 20, 19: 0, 22: 0, 25: 19, 17: 0, 21: 17, 18: 21, 10: 15, 14: 0, 16: 0})
nxt {10: 0, 12: 20, 20: 15, 14: 0, 19: 25, 22: 0, 16: 0, 17: 21, 21: 18, 15: 10})
head [12, 19, 17, 0, 0, 0, 0, 0, 0, 0]
tail [10, 25, 18, 0, 0, 0, 0, 0, 0, 0]
broken [False, False, False, False, False, False, False, False, False, False]
belt_num {10: 0, 12: 0, 20: 0, 15: 0, 14: -1, 19: 1, 22: -1, 25: 1, 16: -1, 17: 2, 21: 2, 18: 2})

id	w	prv	nxt	belt_num
10	30	15	0	0
12	30	0	20	0
20	20	12	15	0
15	20	20	10	0
14	10	0	0	-1
19	18	0	25	1
22	17	0	0	-1
25	15	19		1
16	25	0	0	-1
17	11	0	21	2
21	14	17	18	2
18	17	21		2

idx	0	1	2	3	4	5	6	7	8	9
head	12	19	17	0	0	0	0	0	0	0
tail	10	25	18	0	0	0	0	0	0	0