
OX
CB
BARE
METAL

Our agenda

Just 3 programs…

- Counting up
- Counting down
- Reversing a numberr

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What does this program do? And how do we make it better?

1	100
2	320
3	902
4	100
5	320
6	902
7	100
8	320
9	902
10	100
11	320
12	902
13	100
14	320
15	902
16	000

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Not optimal…

```
1    100   @ Add 1 to ACC
2    320   @ Store in 20
3    902   @ Print ACC
4    100   @ Add 1 to ACC
5    320   @ Store in 20
6    902   @ Print ACC
…
```

Funny enough, counting *down* from an arbitrary number teaches us something.

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Implementing a countdown (including 0)?

1	901
2	902
3	200
4	802
5	000

Back to that original problem...

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Counting up to an arbitrary number

1	901
2	320
3	530
4	902
5	520
6	200
7	320
8	530
9	100
10	330
11	520
12	803
13	000
30	001

Implementing the SFT (4LR) instruction

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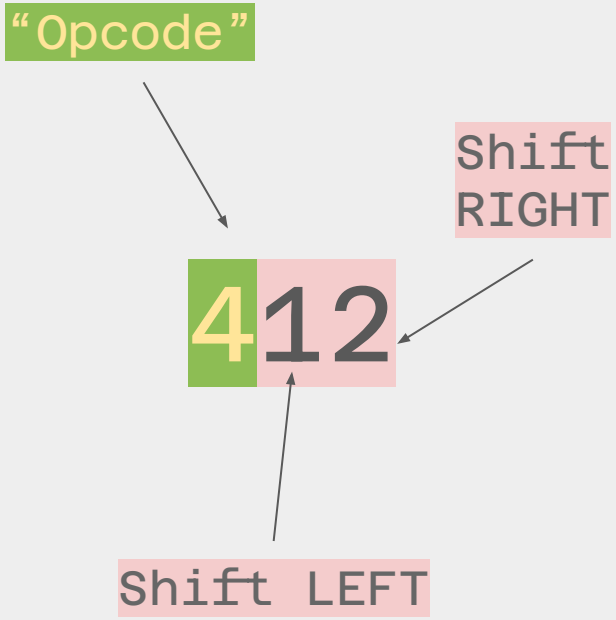
Anatomy of SFT command



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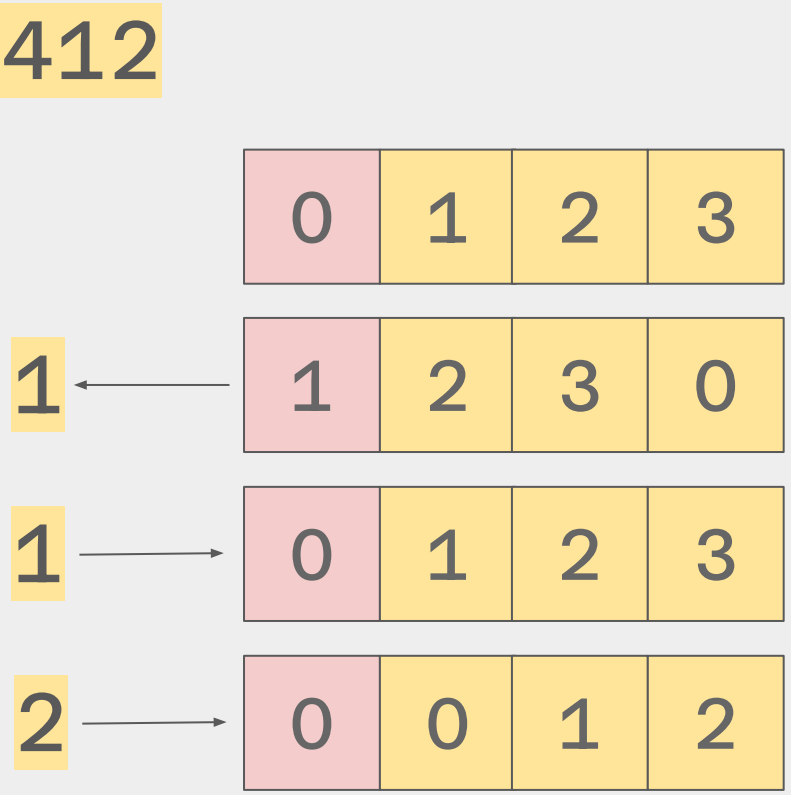
Operation of SFT command



Turn 123 into 321 (and other diversions)

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Flip this script

1	901
2	350
3	420
4	351
5	550
6	402
7	151
8	360
9	550
10	902
11	423
12	410
13	160
14	902
15	000

How is that useful.

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Consider this...

```
1    510
2    111    @ Acc is large
3    902    @ What prints?
4    312    @ What stores?
5    000
10   999
11   998
```

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Consider this too...

1	510
2	111
3	902
4	314
5	403
6	513
7	902
10	999
11	998