

# Ques Roman to integer

I	1
V	5
X	10
L	50
C	100
D	500
M	1000

IV

2990

MM

999 IM

990 XM

115 → CXV

MM X M

ans → ~~1000~~

1990 + 1000

⇒ 2990

key	Value
1	10
5	10
9	9

MM X M

↑

containskey(key)

get(key)

put(key, val)

$$n =$$

$$49$$

$$4$$

$$8$$

$$\begin{array}{r} 49 \\ 4 \\ \hline 196 \end{array}$$

$$n = n - 2(n \% 10)$$

$$n \Rightarrow$$

$$\begin{array}{|c|c|c|} \hline 7 & 8955795758 & 12793 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \hline \end{array}$$

$$19$$

$$14$$

$$\hline$$

$$55$$

$$49$$

$$\hline$$

$$65$$

$$63$$

$$\hline$$

$$27$$

$$21$$

$$\hline$$

$$6$$

$$0$$

<sup>0</sup> <sup>1</sup> <sup>2</sup> <sup>3</sup>  
" 1 0 7 9 "

s.c has At(2)  $\Rightarrow$  '7'

'0'	1	...	7
48	49		55

'7' - '0'  $\Rightarrow$  7

Ques

AB string  $\Rightarrow A^*B$

$\hookrightarrow$  AB AAB AAAB AAAAB ...

~~B BA BAA~~

n A's and 1 B

$1 \leq n \leq 10^5$

$\hookrightarrow$  A AB AA B

AAA BBB

AB AB

$\frac{A}{AB}$

$\Rightarrow \frac{A}{A} \frac{B}{B}$

AAABBB

AB  
AAAB

" "  $\frac{A}{A} \frac{B}{B}$

A ABAB

$\Rightarrow$  "AAA|B"

AAAAAB AAB B

B

- ✗ Can not start from B
- ✗ Can not end at A
- ✗ no of B's are greater than no of A's for every position

A B

