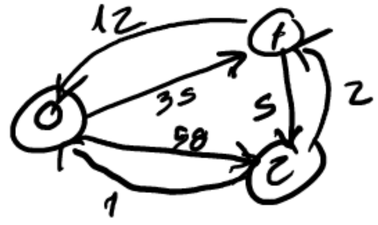
viernes, junio 07, 2024 3:27 PM



#1 test case

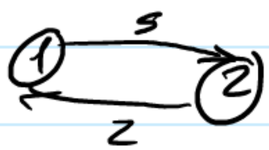
	0	1	2
0	0	35	58
1	12	0	5
2	1	2	0

$\sum_{u \neq 0} d(0,u) = 0 \to 1 + 0 \to 2 = 0 \to 1 + (0 \to 1 + 1 \to 2) = 35 + 35 + 5 = 75$

$\sum_{u \neq 1} d(1,u) = 1 \to 0 + 1 \to 2 = (1 \to 2 + 2 \to 0) + 1 \to 2 = 6 + 5 = 11$

$\sum_{u \neq 2} d(2,u) = 2 \to 1 + 2 \to 0 = 2 + 1 = 3$

tower 0 costs $= 75 + 11 + 3 = 89$

then 

tower 1 costs $= 5 + 2 = 7$

$\Rightarrow$ tower 2 costs $= 0$

FINAL COST $= 89 + 7 + 0 = 96$

We have to iterate over given ordered towers, run dijkstra between all pairs, sum costs, then delete tower from graph (just add it to a list an ignore it in next iterations)

We got an adyacency matrix as input

$\Rightarrow$ trivial dijkstra impl + all-pairs $\Rightarrow$ Floyd ($O(n^3)$)