




Bottom - Up

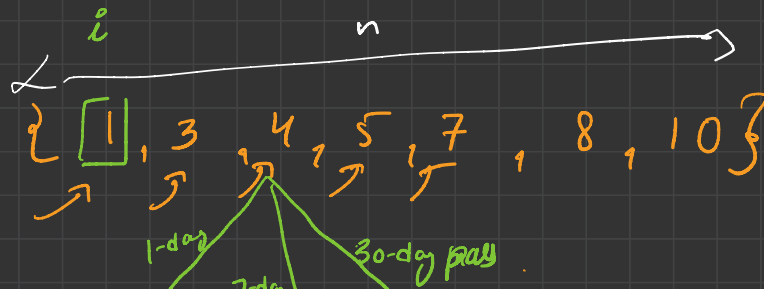
Approach -

T.C $\rightarrow O(n)$

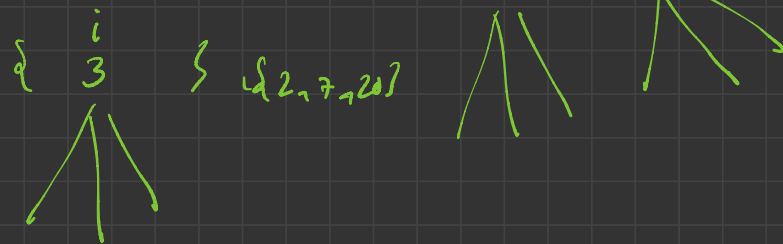
S.C $\rightarrow O(n)$

$O(1)$

Days \rightarrow



$\{2, 7, 20\}$ (out[i])



$T.C \rightarrow O(n)$

$S.C \rightarrow O(1)$

\rightarrow

ans \rightarrow min no of coins

if ans = INT_MAX;

ans + cost[0]

queue < pair < ^{day}int, ^{cost till that day}int > > monthly; → 30 entries
weekly; → 7 entries

S.C → O(1)

int ans = INT_MAX;

for (day : days)

// 1 step → remove expired days from Queue

while (^{size}monthly.front.first + 30 <= day)

monthly.pop

while (^{size}weekly.front.first + 7 <= day)

weekly.pop()

// Step 2 \rightarrow push current day's cost

weekly.push (make_pair (day, ans + cost[1]));

monthly.push (make_pair (day, ans + cost[2]));

d/ step 3 \rightarrow ans update

ans = min (ans + cost[0], min (monthly.front.second,
weekly.))

}

return ans;

}

