We can only do **GREEDY** Solution when there is **UNIFORMITY** in the Elements…

Array → 2, 4, 6, 8 → This is Uniform, because the GAP is EQUAL

Array → 2, 7, 8, 10 → This is NOT Uniform

We can **NOT** Apply Greedy in the Following Problem

**Question:**

Given a set of integers, the task is to divide it into two sets S1 and S2 such that the absolute difference between their sums is minimum.

If there is a set S with n elements, then if we assume Subset1 has m elements, Subset2 must have n-m elements and the value of abs(sum(Subset1) – sum(Subset2)) should be minimum.

Input: arr[] = {1, 5, 11, 5}

Output: 0

Explanation: S1 = {1, 5, 5}, sum = 11, S2 = {11}, sum = 11, Absolute Difference (11 – 11) = 0

Here the Greedy Approach would be in

Set1 keep the (1st, 3rd, 5th Highest Number) & in Set2 (2nd, 4th, 6th Highest Number)

But it would FAIL for Case:

**[1000, 1, 2, 3]**

As there is No Guaranteed **UNIFORMITY** we can't Apply **GREEDY**…we have to Apply for all Paths & apply DP