

712. Minimum ASCII Delete Sum for Two Strings

Given two strings `s1` and `s2`, return *the lowest ASCII sum of deleted characters to make two strings equal*.

Example 1:

Input: `s1 = "sea", s2 = "eat"`

Output: 231

Explanation: Deleting "s" from "sea" adds the ASCII value of "s" (115) to the sum.

Deleting "t" from "eat" adds 116 to the sum.

At the end, both strings are equal, and $115 + 116 = 231$ is the minimum sum possible to achieve this.

Example 2:

Input: `s1 = "delete", s2 = "leet"`

Output: 403

Explanation: Deleting "dee" from "delete" to turn the string into "let", adds $100[d] + 101[e] + 101[e]$ to the sum.

Deleting "e" from "leet" adds $101[e]$ to the sum.

At the end, both strings are equal to "let", and the answer is $100+101+101+101 = 403$.

If instead we turned both strings into "lee" or "eet", we would get answers of 433 or 417, which are higher.

Constraints:

- `1 <= s1.length, s2.length <= 1000`
- `s1` and `s2` consist of lowercase English letters.

```
def minimumDeleteSum(self, s1: str, s2: str) -> int:
    dp = [[0]*(len(s2)+1) for _ in range(len(s1)+1)]
    n = len(s1)
    m = len(s2)
    for i in range(1,n+1):
        dp[i][0] = dp[i-1][0]+ord(s1[i-1])
    for j in range(1,m+1):
        dp[0][j] = dp[0][j-1]+ord(s2[j-1])
    for i in range(1,n+1):
```

```
        for j in range(1,m+1):
            if s1[i-1]==s2[j-1]:
                dp[i][j] = dp[i-1][j-1]
            else:
                dp[i][j] = min(ord(s1[i-1])+dp[i-1][j], ord(s2[j-1])+dp[i][j-1])
        return dp[-1][-1]
```