91. Decode Ways

Medium

11811364FavoriteShare

A message containing letters from A-Z is being encoded to numbers using the following mapping:

'A' -> 1  
'B' -> 2  
...  
'Z' -> 26

Given a non-empty string containing only digits, determine the total number of ways to decode it.

Example 1:

Input: "12"  
Output: 2  
Explanation: It could be decoded as "AB" (1 2) or "L" (12).

Example 2:

Input: "226"  
Output: 3  
Explanation: It could be decoded as "BZ" (2 26), "VF" (22 6), or "BBF" (2 2 6).

class Solution {

public:

bool valid(int x){

if(x>=1&&x<=26) return true;

return false;

}

int numDecodings(string s) {

int len = s.size();

if(len==0) return 0;

int arr[len+1]={0};

arr[len]=1;

arr[len-1]=(s[len-1]=='0')?0:1;

for(int i=len-2;i>=0;i--){

if(s[i]=='0') continue;

int val=(s[i]-'0')\*10+(s[i+1]-'0');

if(valid(val)) arr[i]=arr[i+1]+arr[i+2];

else arr[i]=arr[i+1];

}

return arr[0];

}

};

Success

[Details](https://leetcode.com/submissions/detail/210560282/)

Runtime: 4 ms, faster than 100.00% of C++ online submissions for Decode Ways.

Memory Usage: 8.3 MB, less than 82.57% of C++ online submissions forDecode Ways.