

271. Encode and Decode Strings Premium

Solved ●

Medium  Topics 

Design an algorithm to encode **a list of strings** to **a string**. The encoded string is then sent over the network and is decoded back to the original list of strings.

Machine 1 (sender) has the function:

```
string encode(vector<string> strs) {  
    // ... your code  
    return encoded_string;  
}
```

Machine 2 (receiver) has the function:

```
vector<string> decode(string s) {  
    //... your code  
    return strs;  
}
```

So Machine 1 does:

```
string encoded_string = encode(strs);
```

and Machine 2 does:

```
vector<string> strs2 = decode(encoded_string);
```

`strs2` in Machine 2 should be the same as `strs` in Machine 1.

Implement the `encode` and `decode` methods.

You are not allowed to solve the problem using any serialize methods (such as `eval`).

Example 1:

Input: `dummy_input = ["Hello","World"]`

Output: `["Hello","World"]`

Explanation:

Machine 1:

`Codec encoder = new Codec();`

`String msg = encoder.encode(strs);`

Machine 1 ---msg---> Machine 2

Machine 2:

`Codec decoder = new Codec();`

`String[] strs = decoder.decode(msg);`

Example 2:

Input: `dummy_input = [""]`

Output: `[""]`

Constraints:

- `1 <= strs.length <= 200`
- `0 <= strs[i].length <= 200`

- `strs[i]` contains any possible characters out of 256 valid ASCII characters.

Follow up: Could you write a generalized algorithm to work on any possible set of characters?

Seen this question in a real interview before? 1/5

Yes No

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Topics



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