

271. Encode and Decode Strings

Medium 400 144 Add to List Share

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.

Note:

- The string may contain any possible characters out of 256 valid ascii characters. Your algorithm should be generalized enough to work on any possible characters.
- Do not use class member/global/static variables to store states. Your encode and decode algorithms should be stateless.
- Do not rely on any library method such as `eval` or `serialize` methods. You should implement your own encode/decode algorithm.

Accepted 55,841 Submissions 181,871

Seen this question in a real interview before?

Yes

No

Contributor



Companies i



Related Topics



Similar Questions



i {} > < ?

```
1 class Codec:
2
3     def encode(self, strs):
4         """Encodes a list of
5         strings to a single string.
6
7         :type strs: List[str]
8         :rtype: str
9         """
10
11     def decode(self, s):
12         """Decodes a single string
13         to a list of strings.
14
15         :type s: str
16         :rtype: List[str]
17         """
18
19 # Your Codec object will be
20 # instantiated and called as such:
21 # codec = Codec()
22 # codec.decode(codec.encode(strs))
```

Console

Contribute i