Encode and Decode Strings.

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.

Please implement encode and decode.

```java
public class Solution {
    /*
     * @param strs: a list of strings
     * @return: encodes a list of strings to a single string.
     */
    public String encode(List<String> strs) {
        // write your code here
    }


    /*
     * @param str: A string
     * @return: decodes a single string to a list of strings
     */
    public List<String> decode(String str) {
        // write your code here
    }
}
```

Example 1:

Input: ["lint", "code", "love", "you"]. 4#lint4#code4#love3#you

Output: ["lint", "code", "love", "you"].

Example 2:

Input: ["we", "say", ":", "yes"]. 2#we3#say1#:3#yes

Output: ["we", "say", ":", "yes"].

```java
public static String encode(List<String> strs) {
        StringBuilder encodedString = new StringBuilder();
        for (String str : strs) {

    encodedString.append(str.length()).append("#").append(str);
        }
        return encodedString.toString();
    }

    public static List<String> decode(String str) {
        List<String> listAnswer = new ArrayList<>();
        int i = 0;
        while (i < str.length()) {
            int sepIdx = str.indexOf('#', i);
            int length = Integer.parseInt(str.substring(i, sepIdx));

            String decodedString = str.substring(sepIdx + 1, sepIdx +
length + 1);

            listAnswer.add(decodedString);

            i = sepIdx + length + 1;
```

```
        }
        return listAnswer;
}
```