Super Reduced String

HackerRank

Steve has a string of lowercase characters in range `ascii[‘a’..’z’]`. He wants to reduce the string to its shortest length by doing a series of operations in which he selects a pair of adjacent lowercase letters that match, and then he deletes them. For instance, the string `aab` could be shortened to `b` in one operation.

Steve’s task is to delete as many characters as possible using this method and print the resulting string. If the final string is empty, print `Empty String`

Input Format

A single string, s.

Constraints

- $1 \leq n \leq 100$

Output Format

If the final string is empty, print `Empty String`; otherwise, print the final non-reducible string.

Sample Input 0

```
aaabccddd
```

Sample Output 0

```
abd
```

Explanation 0

Sample Input

```
aaabccddd
```

Sample Output 0

```
abd
```

Explanation

Steve performs the following sequence of operations to get the final string:

```
aaabccddd → abccddd → abddd → abd
```

Sample Input 1

```
aa
```

Sample Output 1

```
Empty String
```

Explanation 1

Sample Input 1

```
aa
```

Sample Output 1

```
Empty String
```

Explanation 1

```
aa → Empty String
```

Sample Input 2

```
baab
```

Sample Output 2

```
Empty String
```

Explanation 2

Sample Input 1

```
baab
```

Sample Output 1

```
Empty String
```

Explanation 1

```
baab → bb → Empty String
```