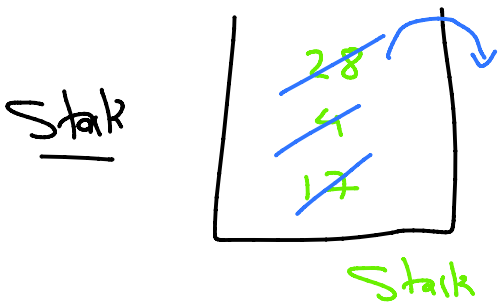
Stacks

02 March 2024 08:27

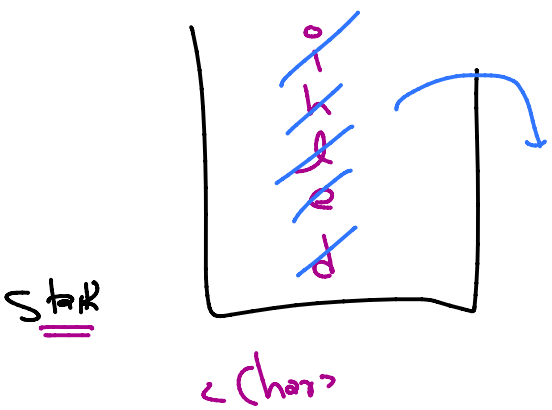
Stack

LIFO = Last In First Out

arr[] = {17, 4, 28}



28, 4, 17 => reversed



str = "delhi"

ihled

yash

ans = hsay

ans += st.top();

ans += st.top();

LIFO ⟹ Reverse

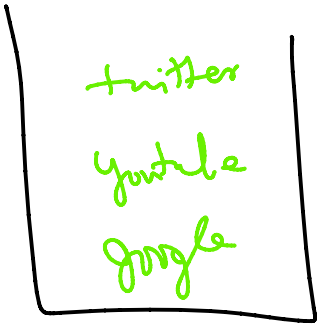
st.size() > 0 ⇒

Stack<char>

city = "delhi"

ans = ihled

google youtube twitter



LIFO

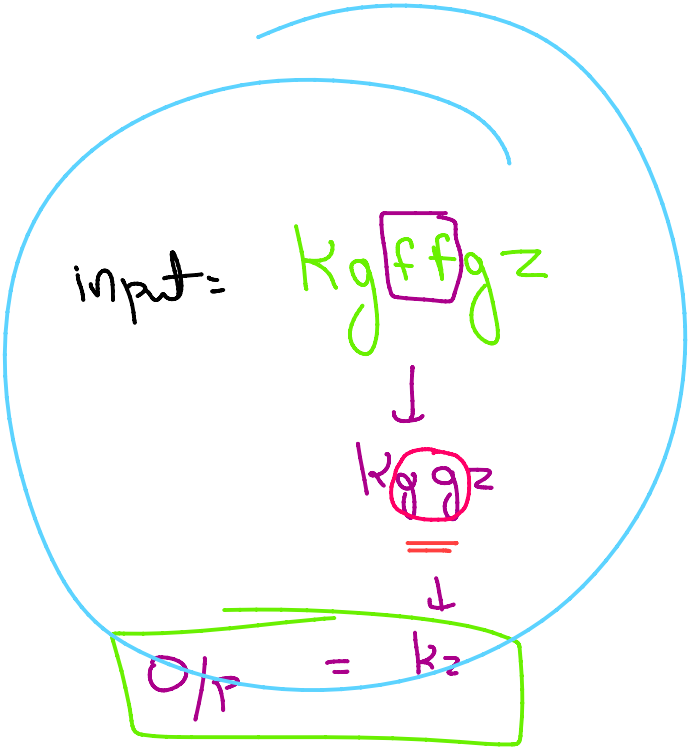
given ⇒ i.like.this.program.very.much

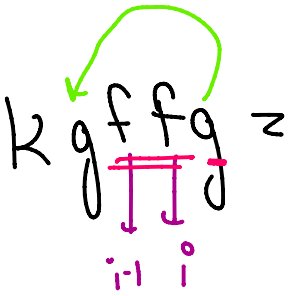
O/p ⇒ much.very.program.this.like.i

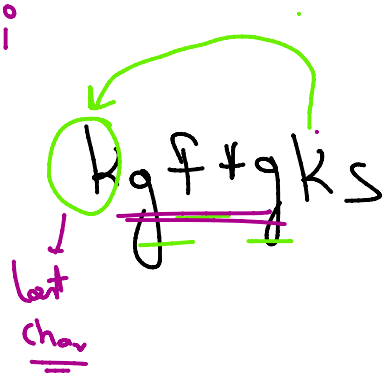
LIFO

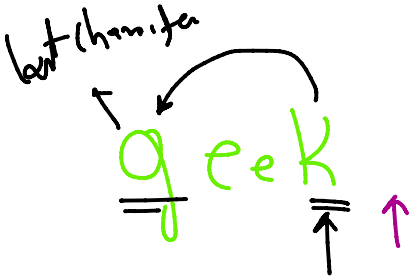
input = geek

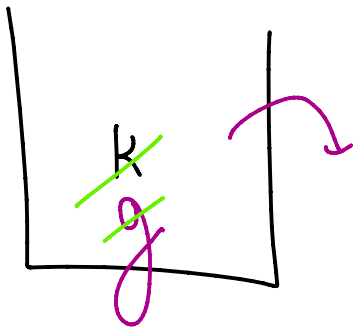
o/p = gk





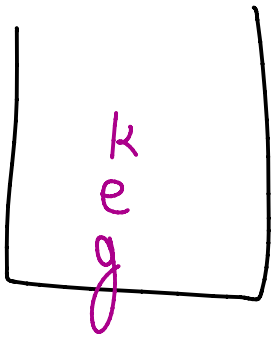






ans = kg $\xrightarrow{\text{reverse}}$ gk

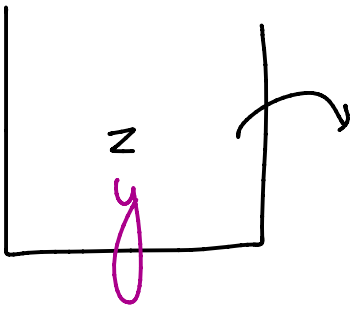
geeek



→ keg

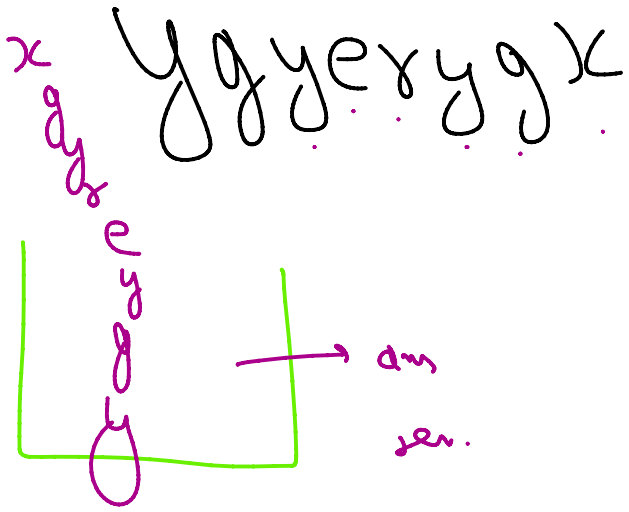
ans = gek

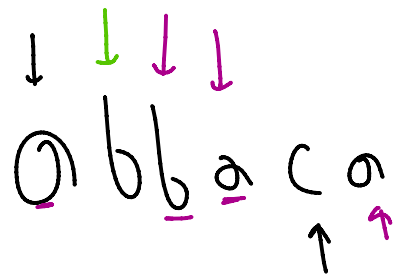
ykgeegkz

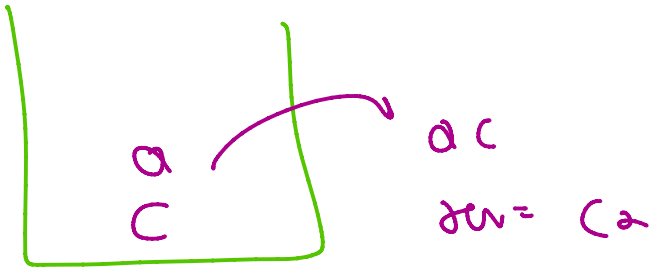


zy

ans = $\boxed{y^z}$.







Strings are immutable in java.

Ans = "de"

Ans = "dez"

x

⇒ y

ya

yas

x

y

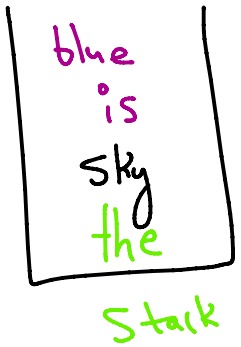
Q. Reverse words in the given string.

stack<string>

Str = "the sky is blue"

O/p = "blue is sky the"

Str: "the sky is blue"



Q. Reverse words in a given String.

Space → _

String = "__the_sky__is__blue_"

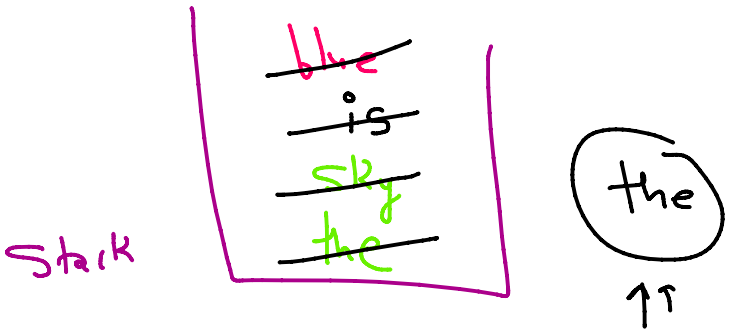
=> "the_sky_is_blue"

temp = blue

| blue |

temp = blue

Str = "__the_sky__is__blue"

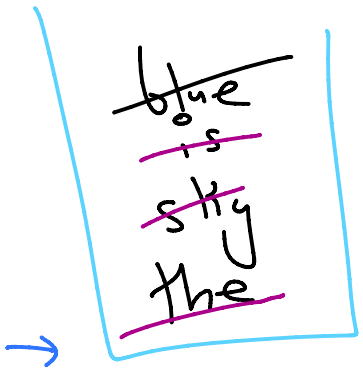


temp = blue

One = blue_is_sky_the

```
While ( st.size() > 0)
{
    word = st.top();
    st.pop();
    if ( st.size() > 0)
    {
        one += word + " ";
```

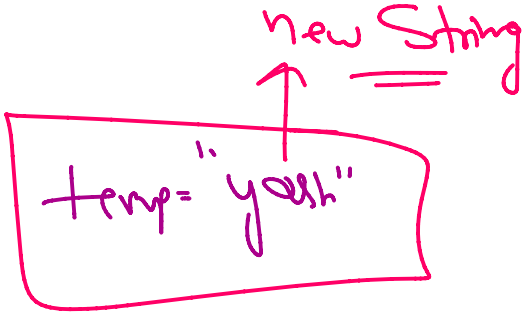
```
}
else
{
}
ans += word;
}
```



ans = blue_is_sky_the

temp = "yas"

temp = "h"



Remove adjacent dupliate => 2 same adjacent characters then remove them.

kgffgz = kz

kgfffgz = kz

k = 3

if 3 adjacent characters are same then remove them.

kgfffgz

kadjacent

↓

kggz = (Ans)

k = 3

yggfffgz

↓

yggggz

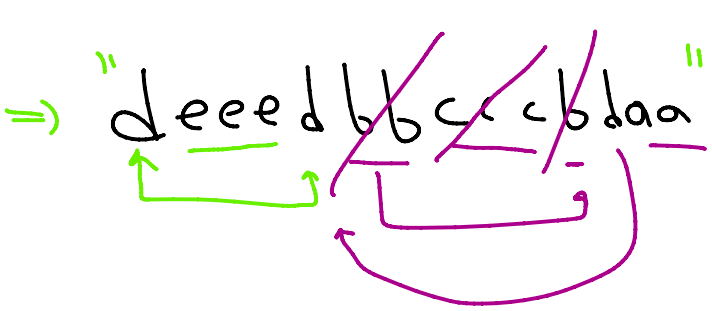
↓

yz (Ans)

d

Q. Remove Adjacent duplicate (K consecutive)

(part-II)



K=3

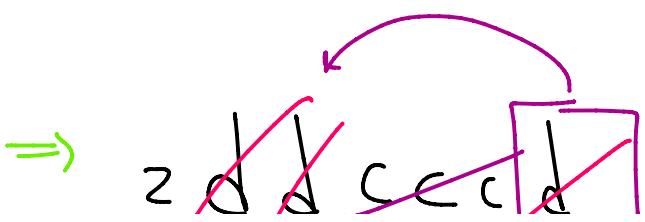
deeedbbcccbdaa

ddbbcccbdaa

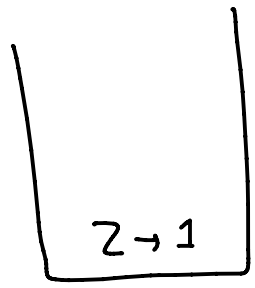
ddbbbdaa

ddddaa

aa

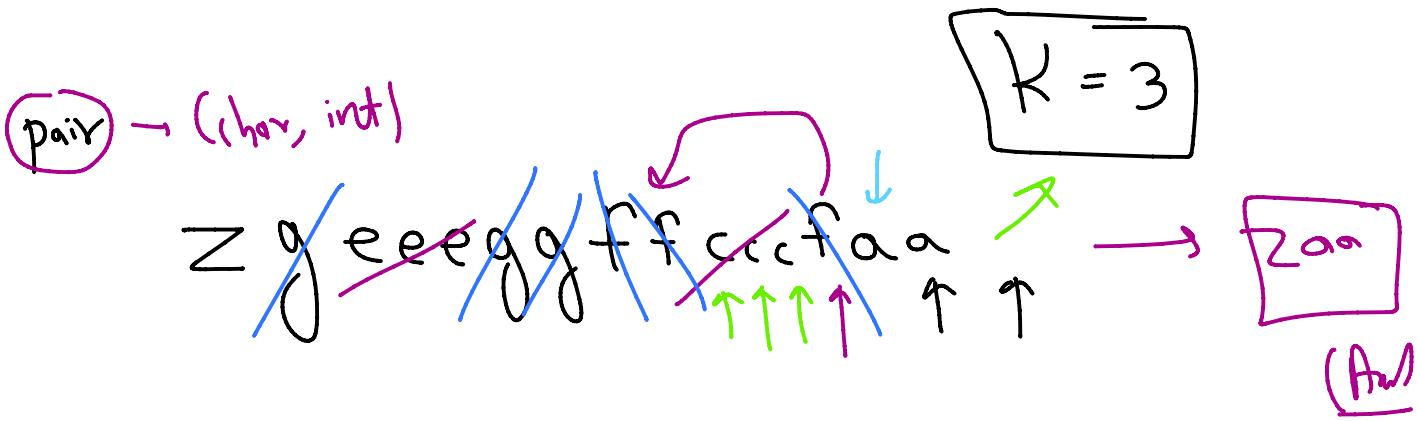


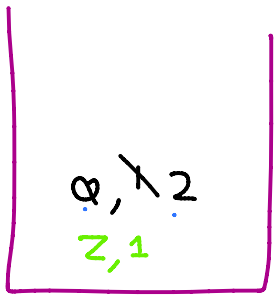
K=3



stack <pair>

pair → (char, int)

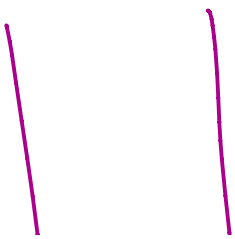




Ans = aaz

↓ reverse

zaa

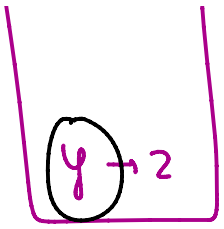


pair < char, int >

↓ ↓

↓ first second

Ch



yy y

first Second

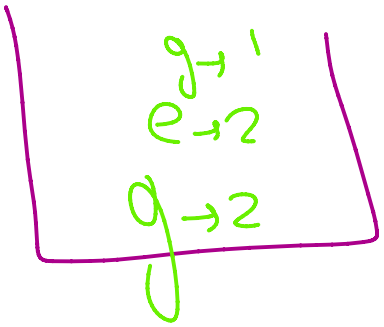
Pair

Char, int

Key value

g g e e g

k = 3



T(: → O(n) ✓

S(: → O(n)