

Doubt Class with Lakshay

Special class

Easy Topic

arrays

String

Break

Char Arrays & Strings - Class 1

Special class

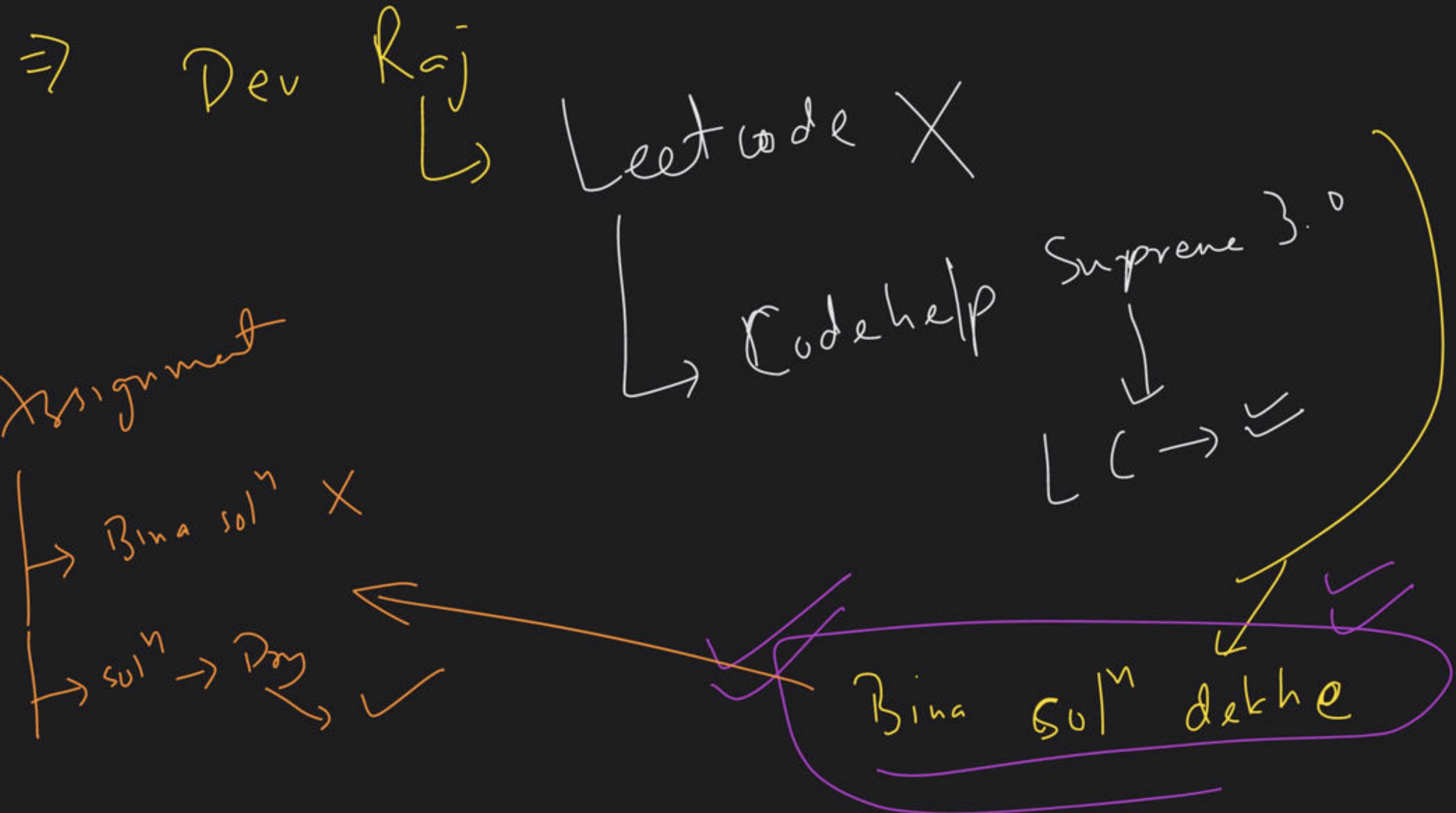
Booleans are
imp
=

Industry
Coding Test - online

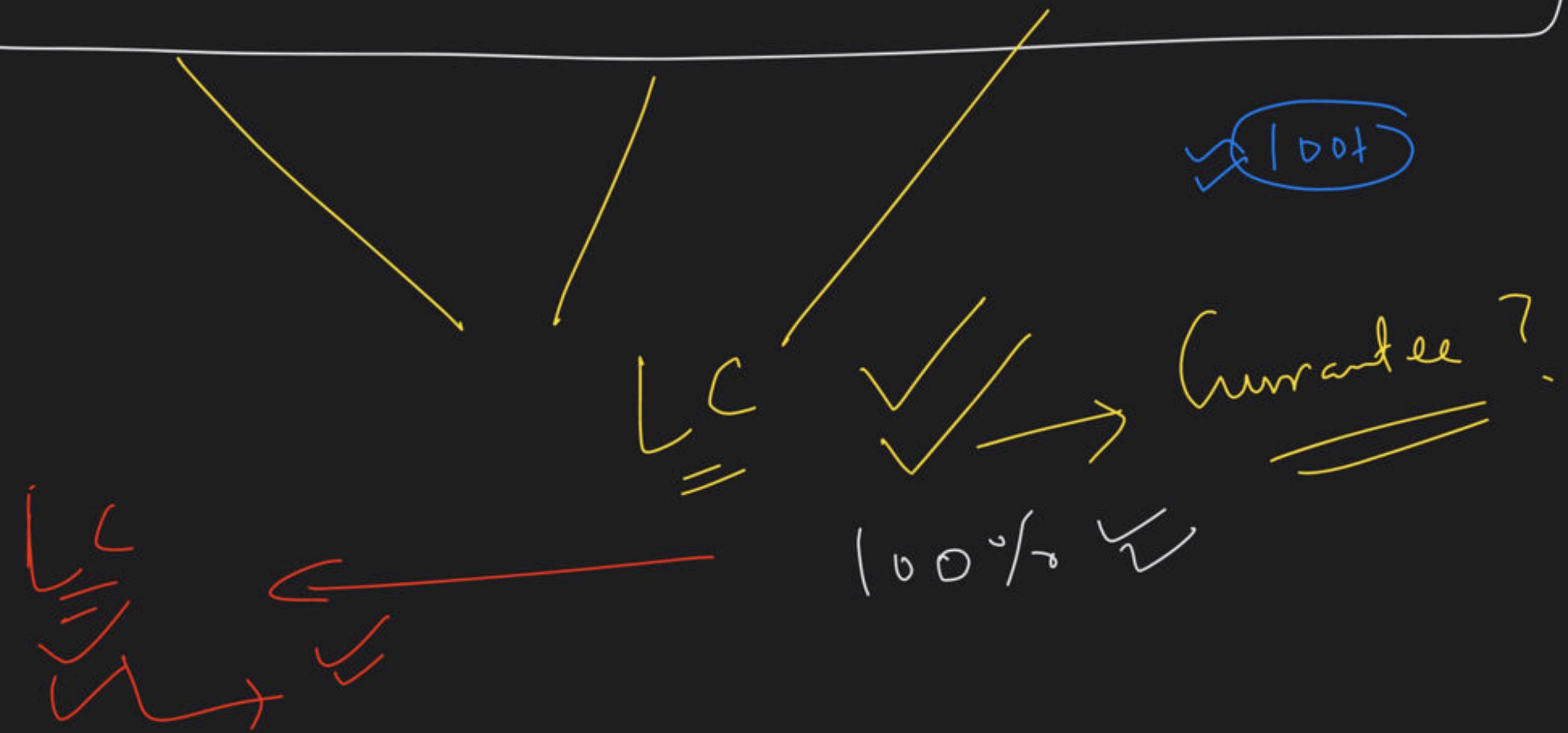
Interviews

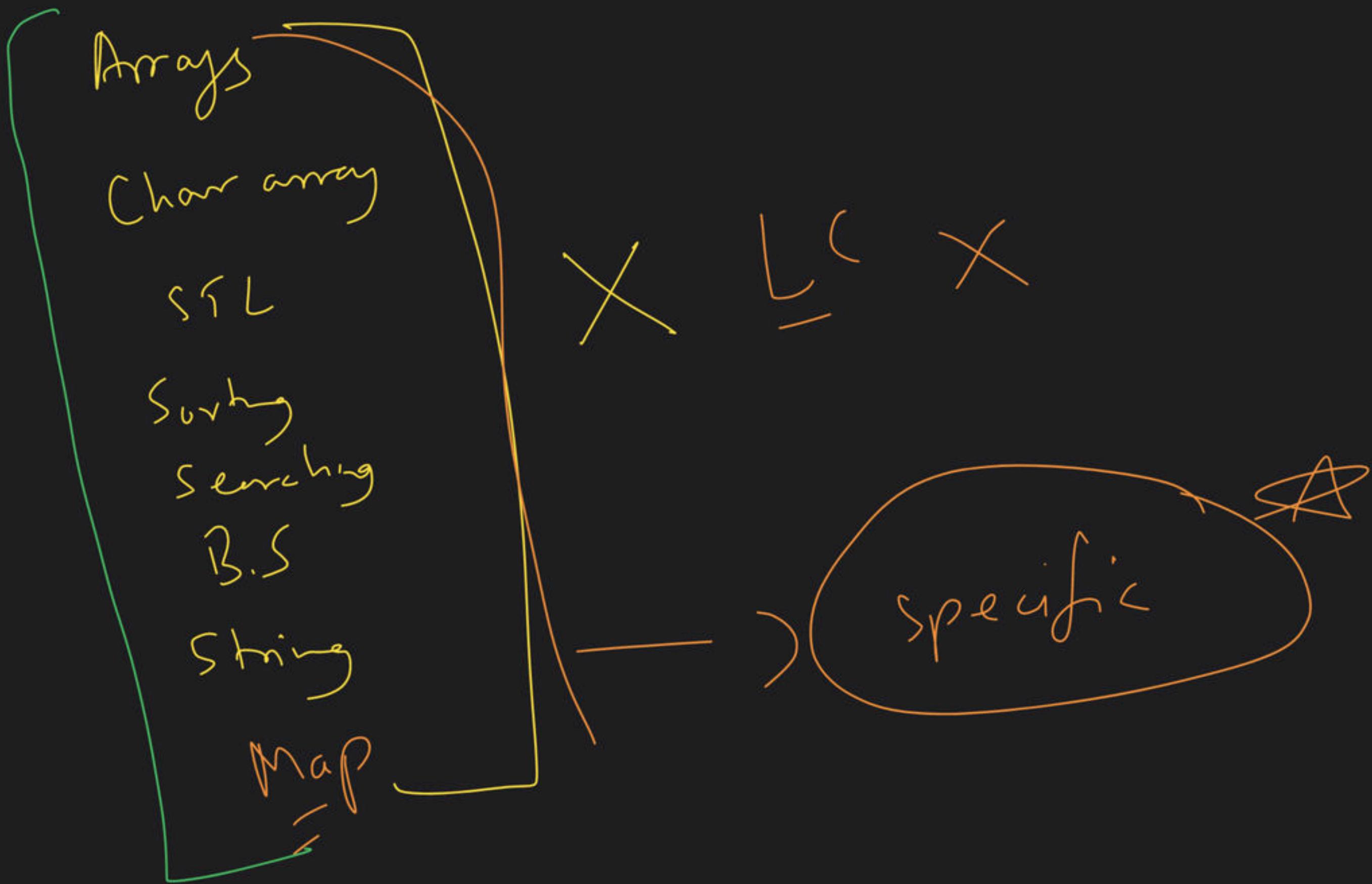
Char arrays
/ string

To cover the
Backlog



Live class + Assignment + Mega class =





Re

RE Tag X

Random

U
long
M
V

L.L.

stack

O

DP

go

-

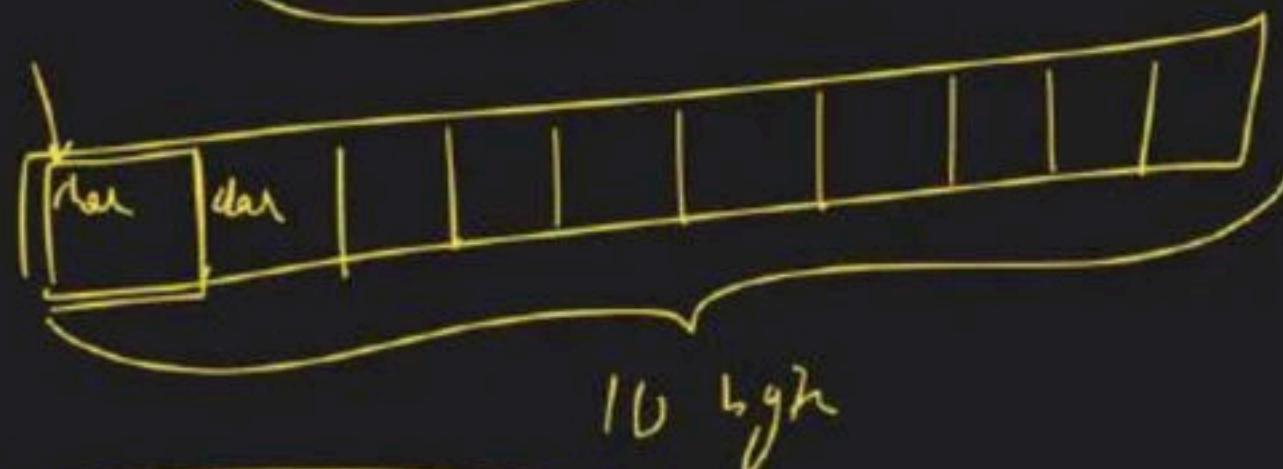
Y

\Rightarrow $\sqsubseteq^C \rightarrow$ Siter

char array

array → sequence of characters

creation → char arr[10];



(vector<char> arr)

cout << arr → 107
int arr[5]

creation → arr[10]

arr → 5 * n → 20
access → arr[index] 0, 1, 2, ...

i/p → cin >> arr[i] 0*

loop → single block all blocks

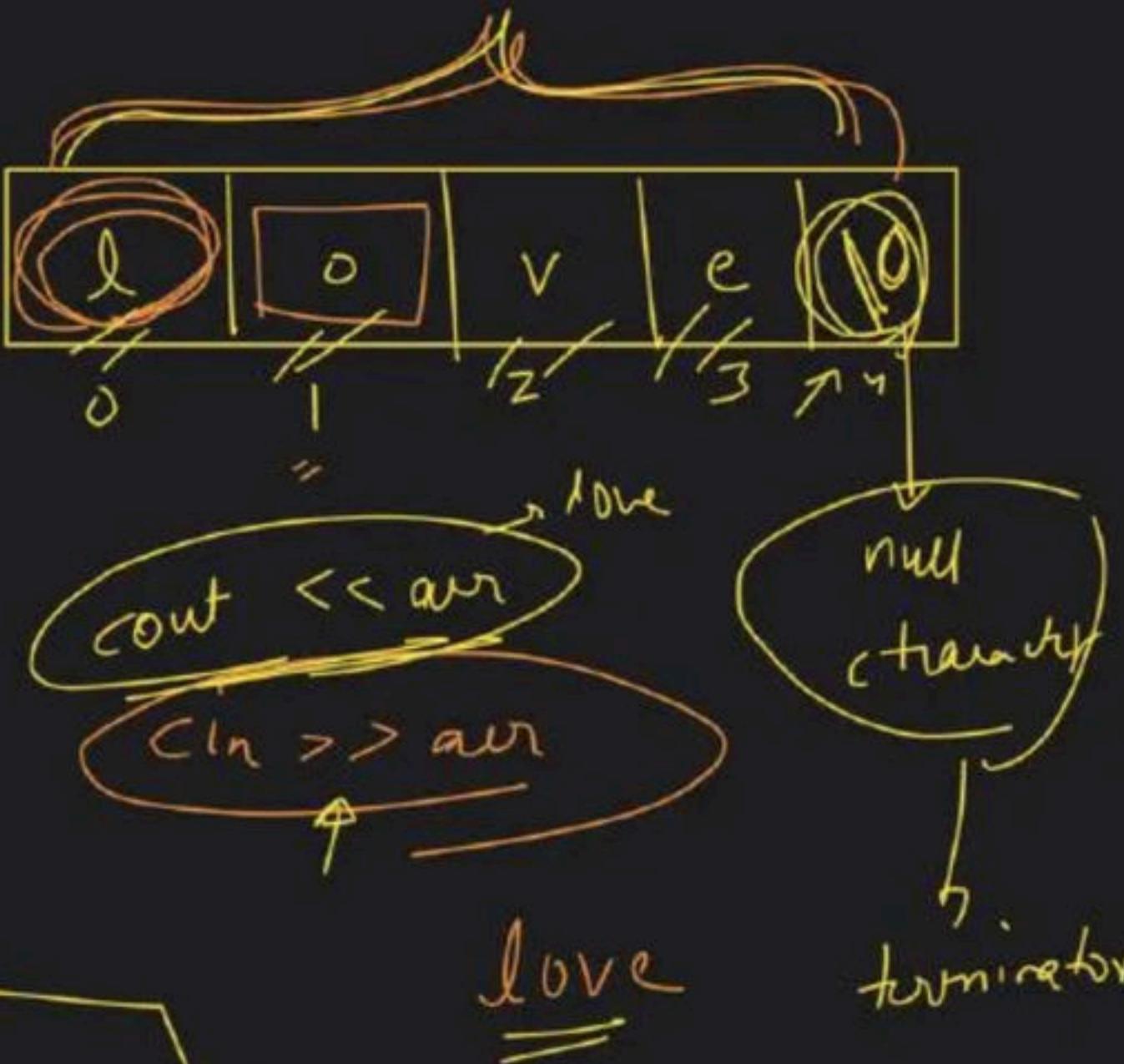
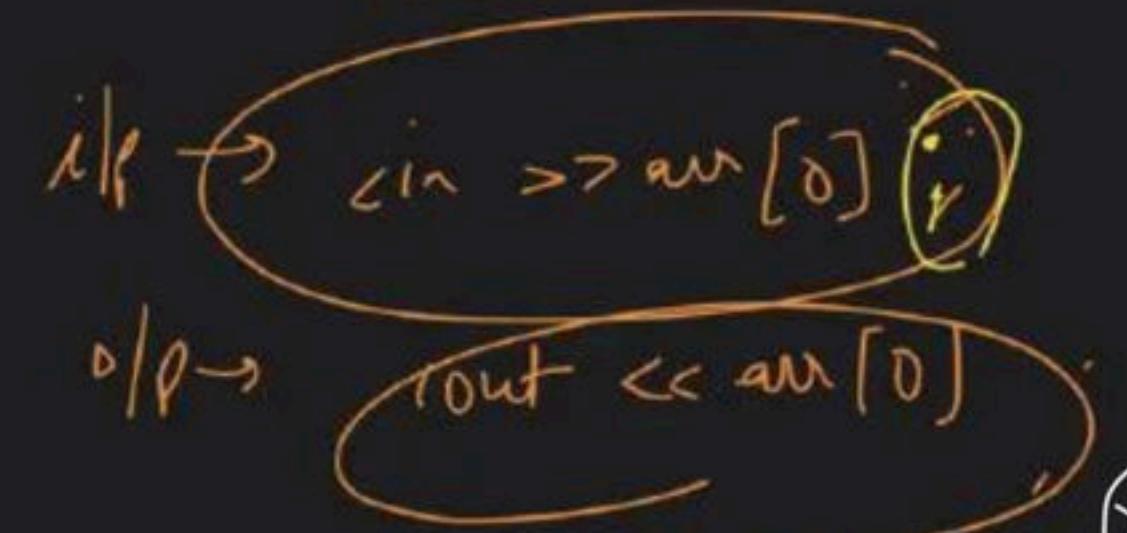
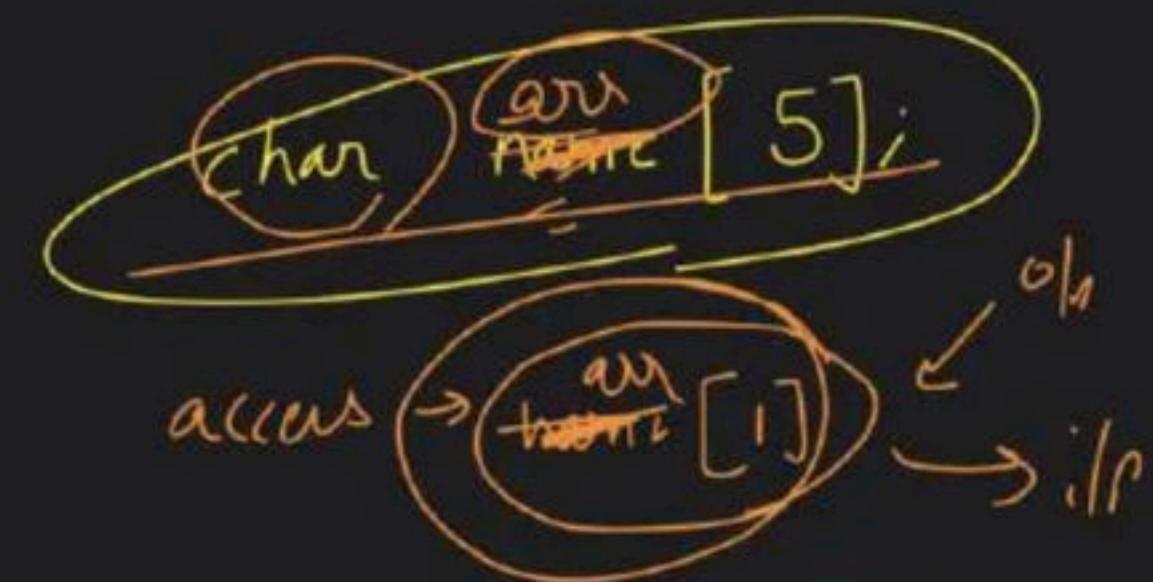
o/p → loop → cout << arr[i]

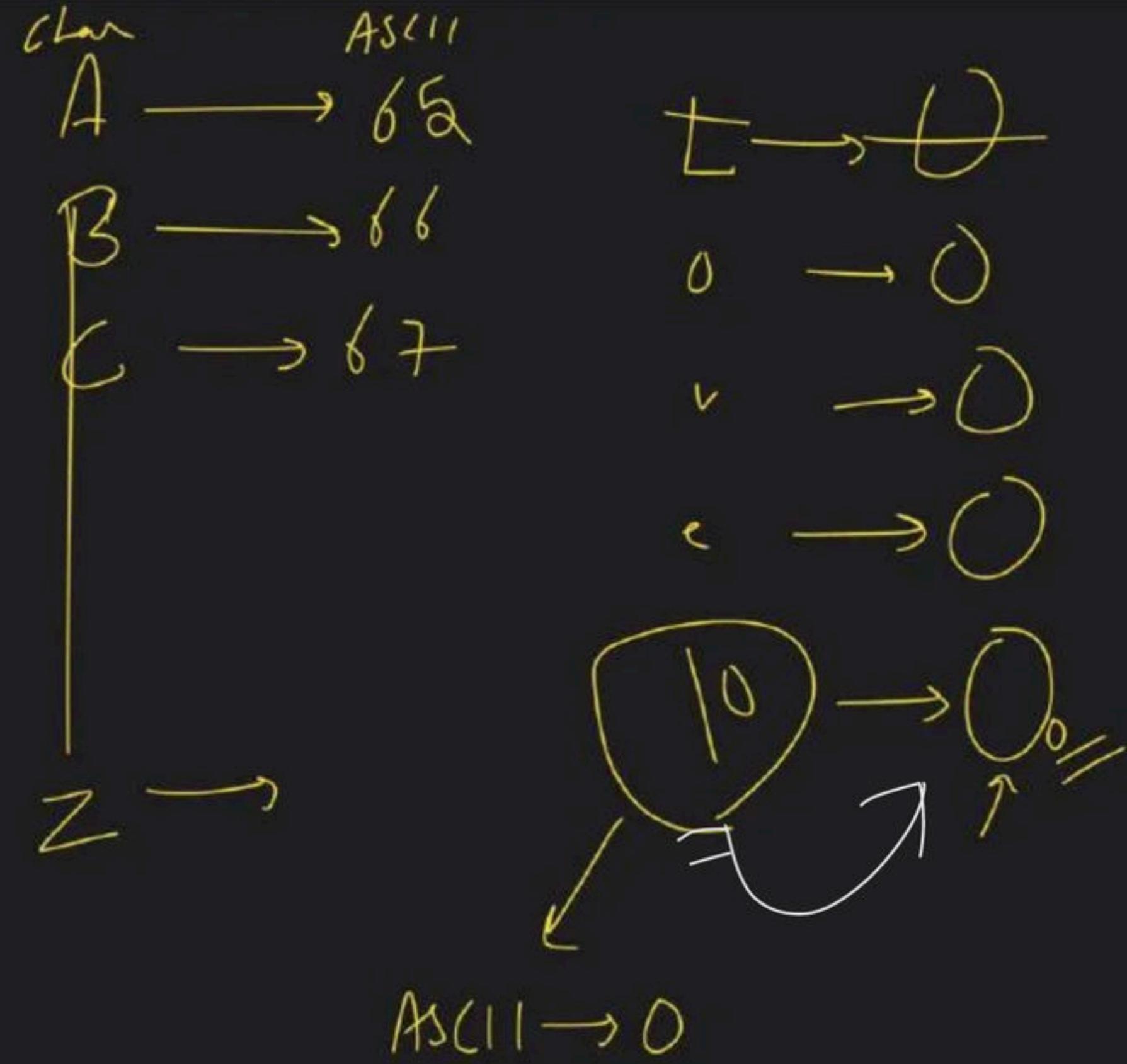
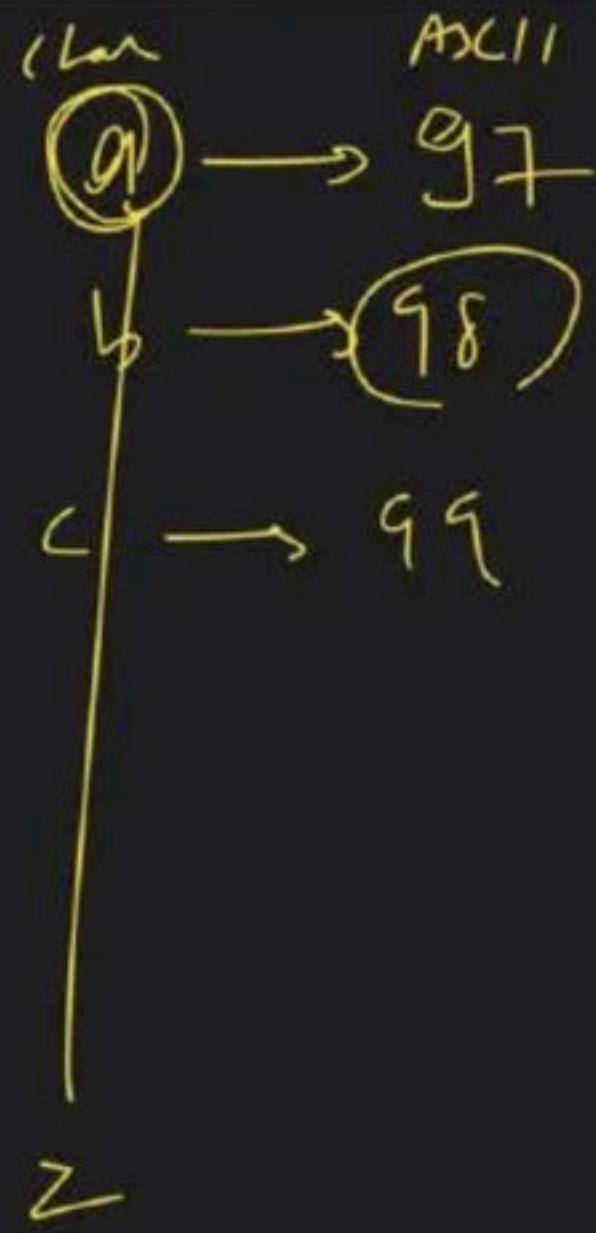
int a[5] = {1, 2, 3, 4, 5}

cout << a ;
 ↑
 add

char a[5] = {'c', 'd', 'e', 'f', 'g'}

 cout << a >
 cin →





char Array

-

getline

Other way to take input

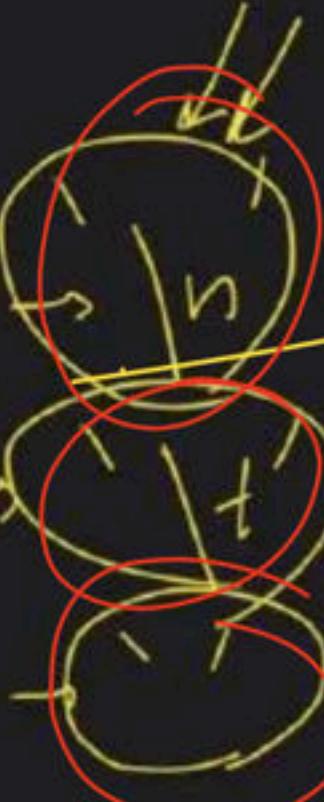
cin

→ delimiter

enter

tab

space



M

Name

i

Love

Batman

My

Name

i

Love

My

Name

=

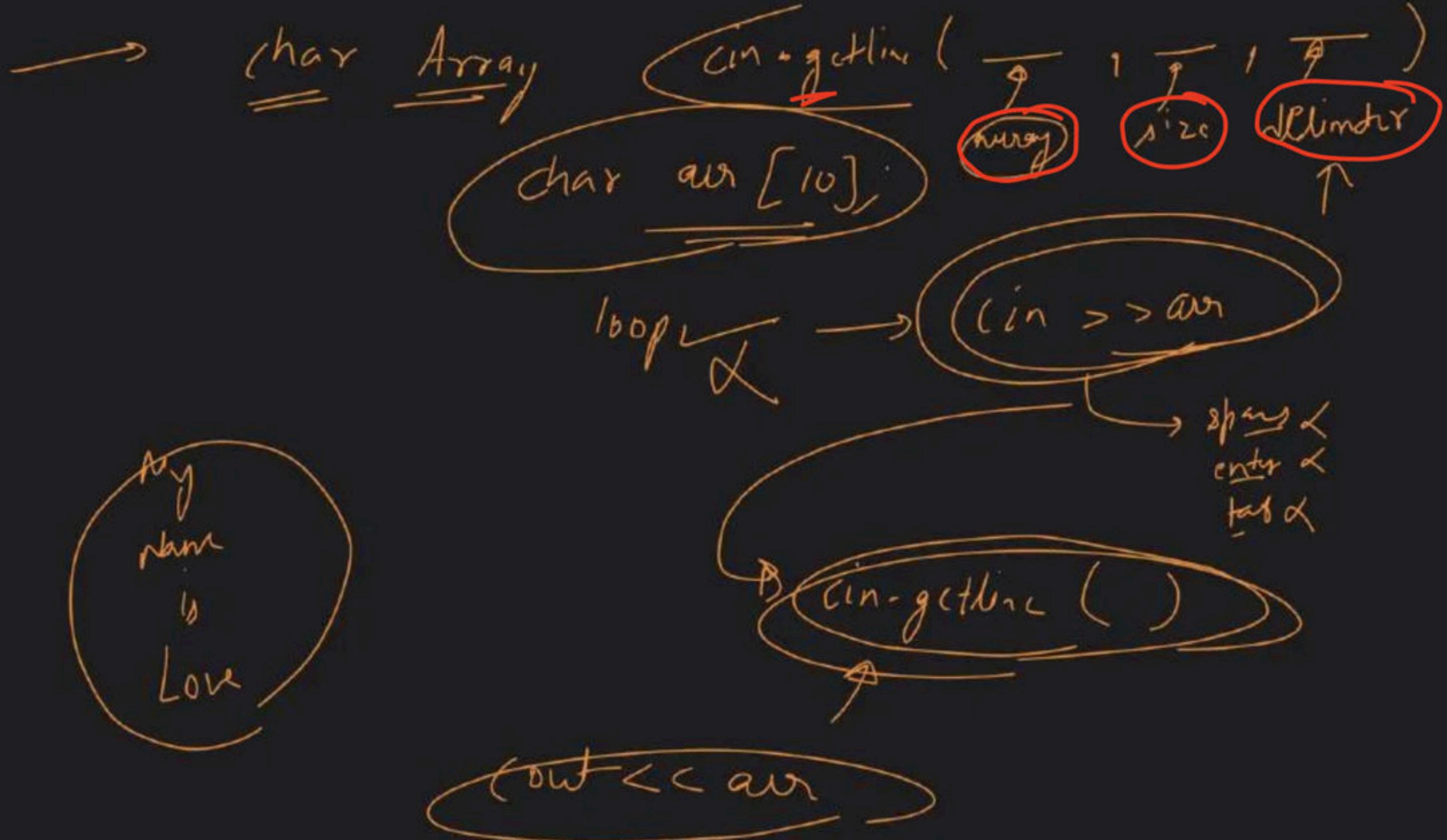
tab

name

tab

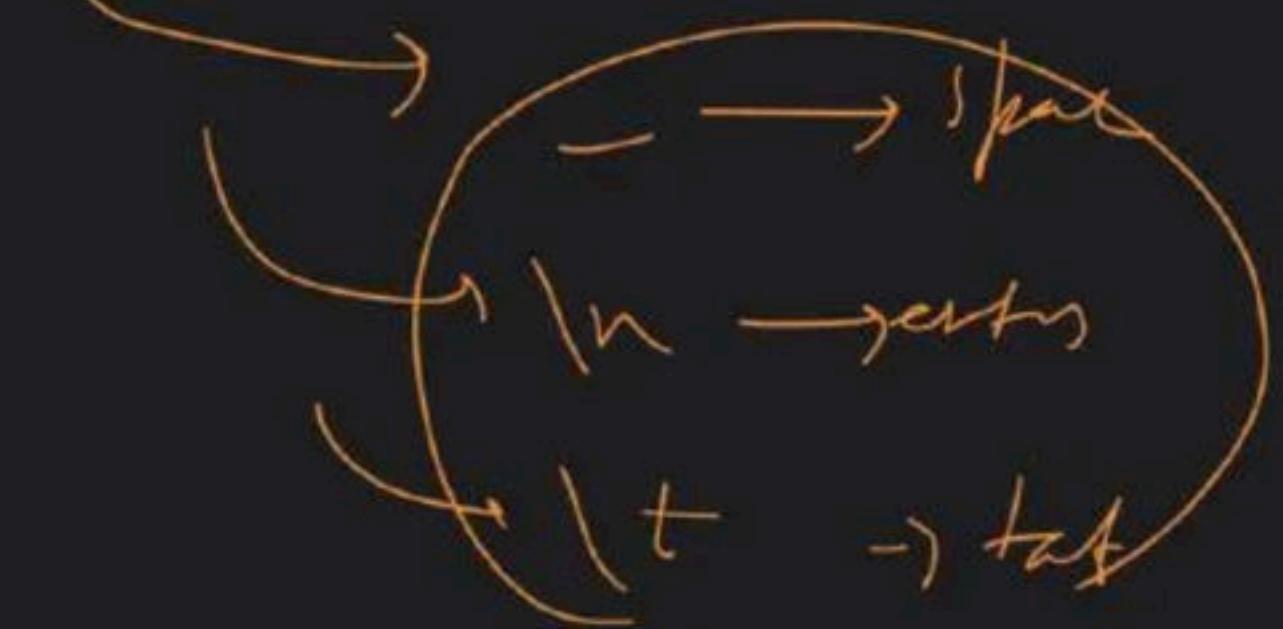
'\n'

Love



delimiter → character → found → input stream

cin >> all



input / o/p str

→ find layout of char Array → Service Based

strlen(arr)

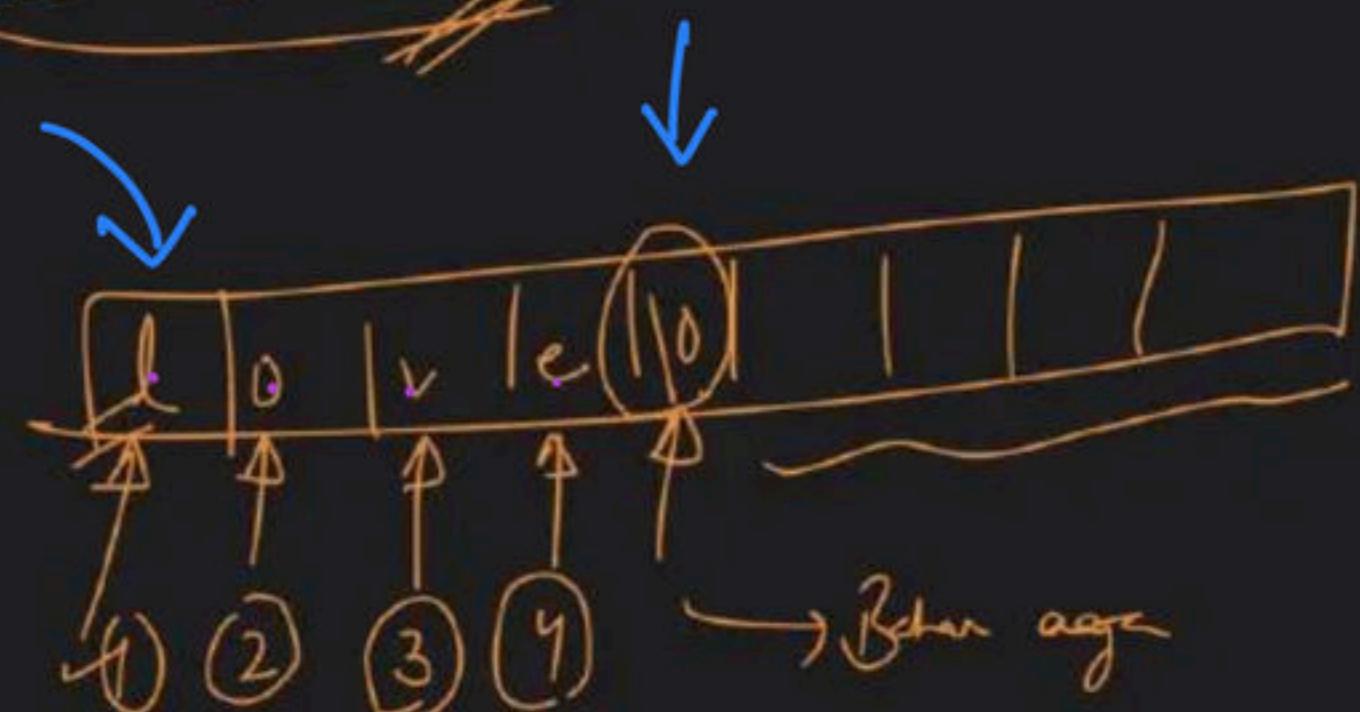
char arr[10];

cin >> arr

love

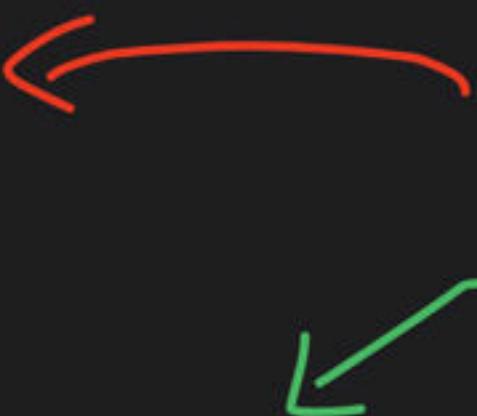
find len()

Y



$N+1$

$N+1$



Code help



Minimum → size of char array

char ch[9] = { 'c', 'o', 'd', 'e', ' ', 'h', 'e', 'l', 'l', 'P', '\0' };

Count <=

'\0'

count = 0, n = 8

```
for (int i = 0; i < n; i++)
```

```
if (arr[i] == '\0')
```

```
break;
```

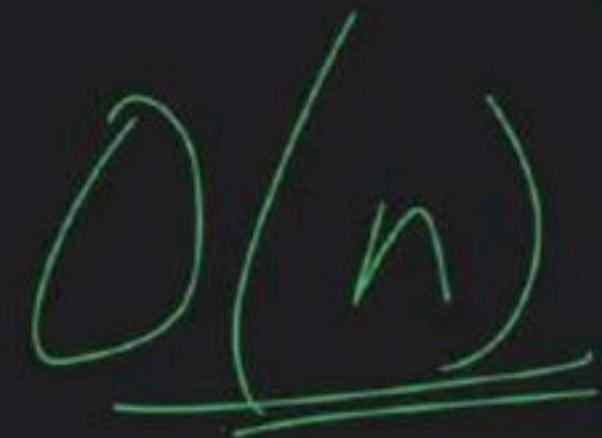
```
else
```

```
count++
```

```
}
```

*	*	*	*	*	*	*	*
1	0	2	3	4	5	6	7

count = ~~0~~ * ~~1~~ ~~2~~ ~~3~~ ~~4~~ ~~5~~ ~~6~~ ~~7~~
return



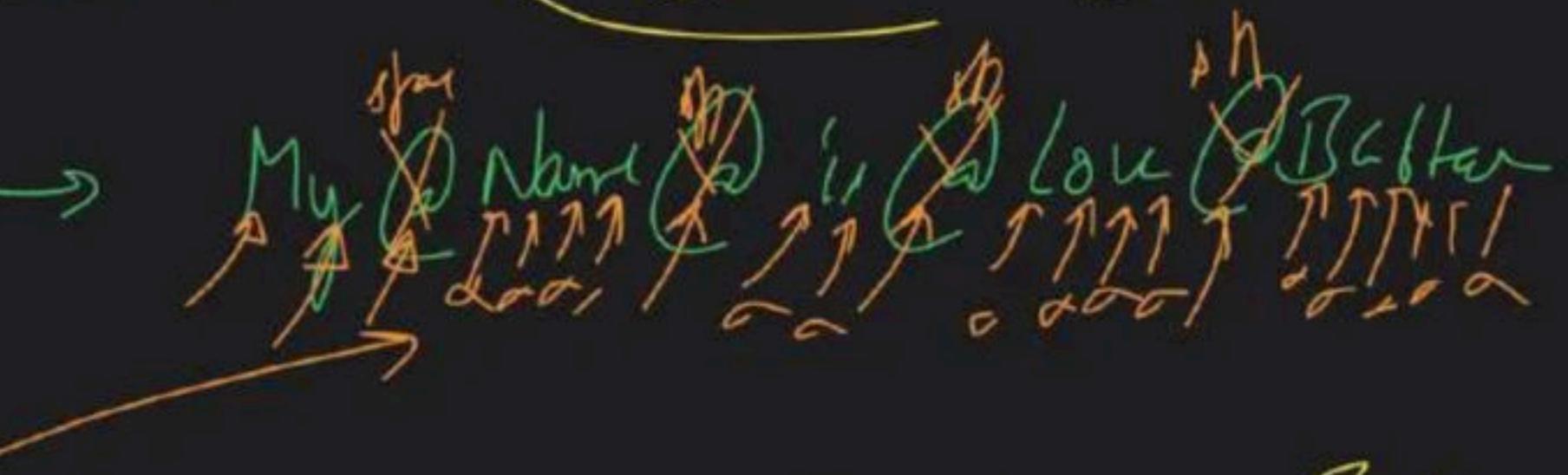
→ Replan character

Easy
Medium
Hard

ip

o/p

intuit

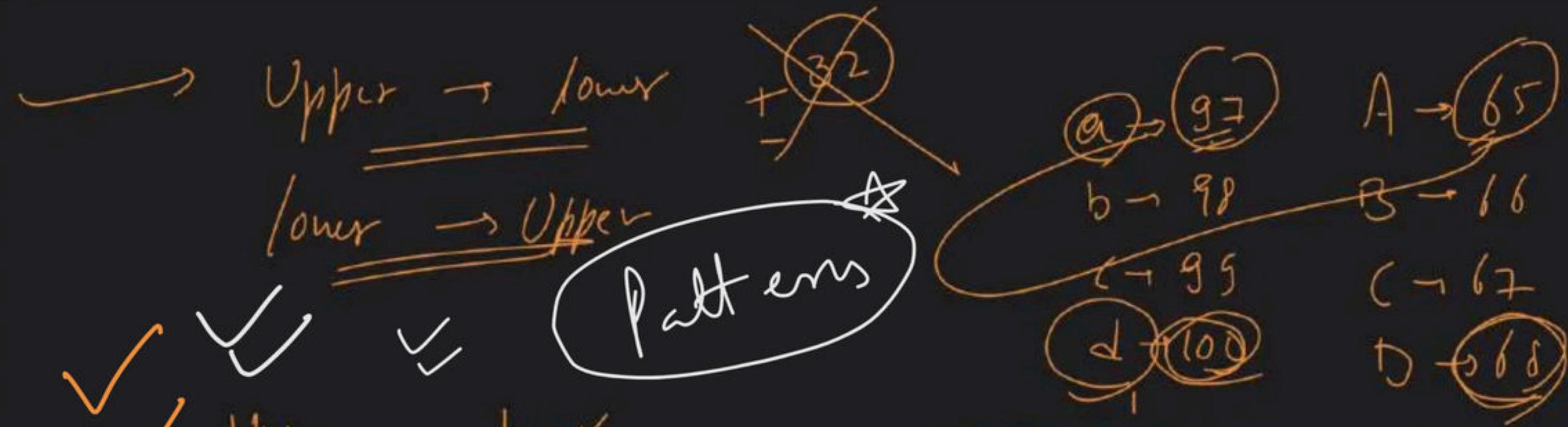


My - Name - is - Lou - Belle

① Replace = character

② DP

③ Graph X



✓ ✓ ✓ ✓

Upper → Lower ✓

$$ch = ch - 'A' + 'a'$$

$$= 71 - 71 + 5$$

$$= 0 + 1 = 1$$

A

~~D~~

$$\frac{65 - 65 + 97}{68 - 65 + 97}$$

$$\begin{aligned}
 & A' - Y - D - A' + a \\
 & 0 - 68 - 65 + 97 \\
 & = 3 - 2 \rightarrow 100 \rightarrow 1
 \end{aligned}$$

int a - ch

char ch
cin >> ch
cout << (int)ch

cout << a

$U \longrightarrow L$

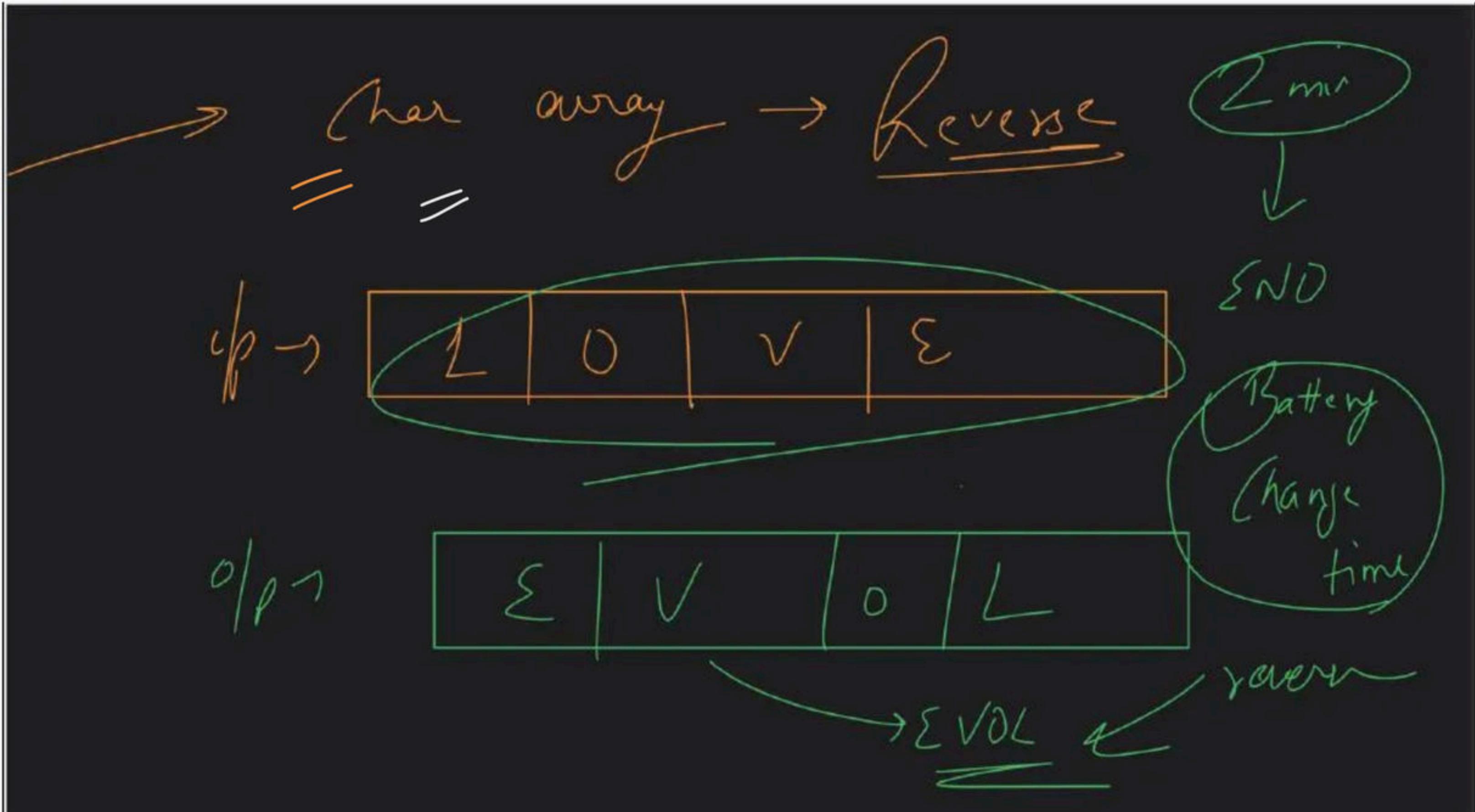
$$ch = 'A' + 'a'$$

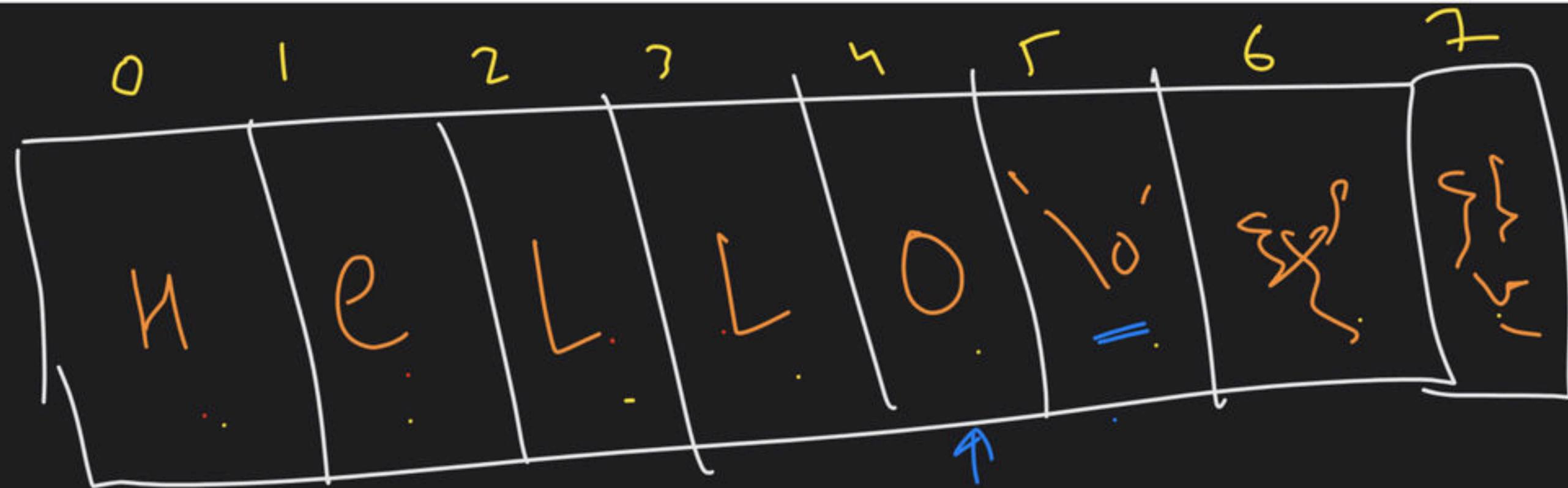
$L \longrightarrow U$

$$ch = 'a' + 'A'$$

2 min

Break





char
 $\text{ch}(s) =$



737 → Lakshay
 738 → Love Bal

62

Poorva Paths
 DSA

$h = \text{strlen}()$

$\frac{45 \text{ min}}{1}$

Pattu

Schur
line

Dhokha

Pd main

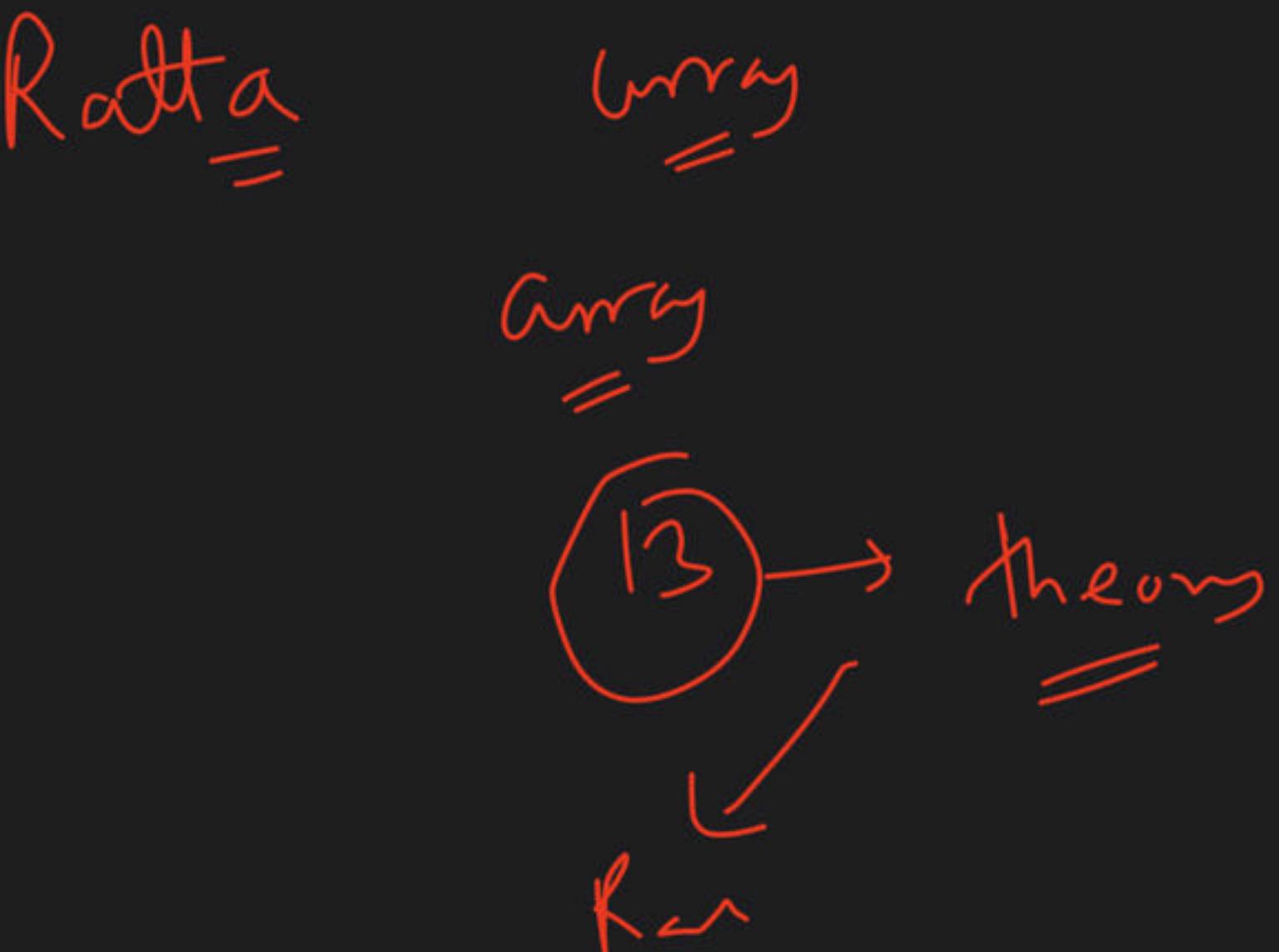
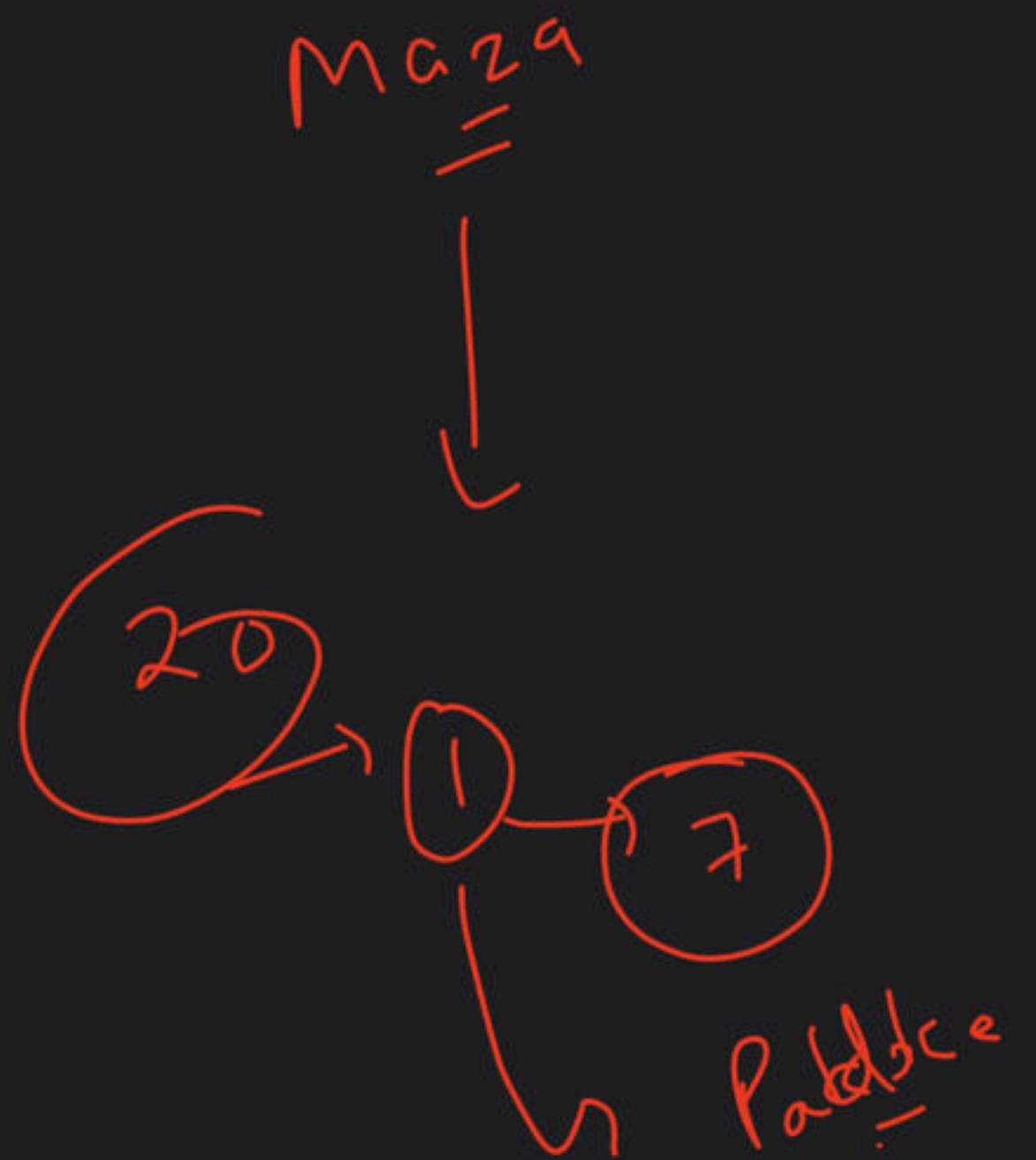
Mid sem

=
20

Foreshalf

sem

Dunk



Palindrome

Most Handout Qu

an

R \leftrightarrow R

X³³X

What is

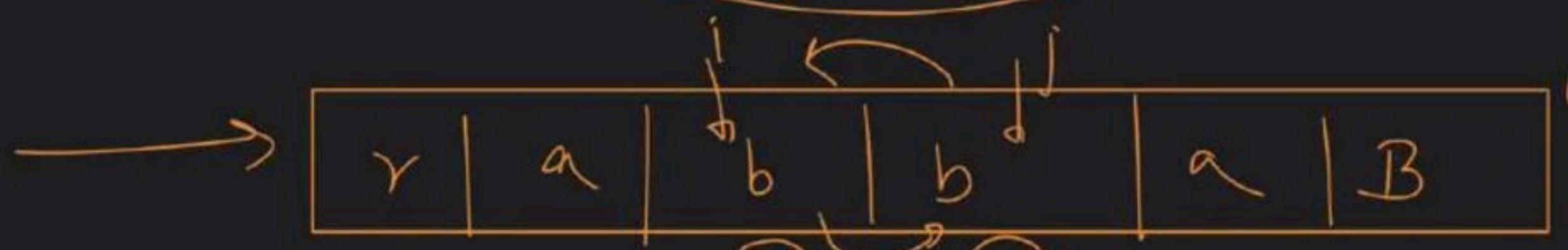
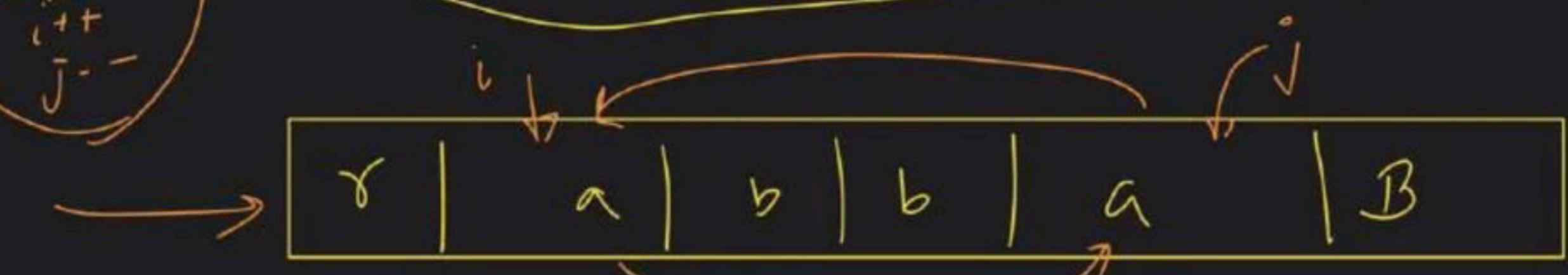
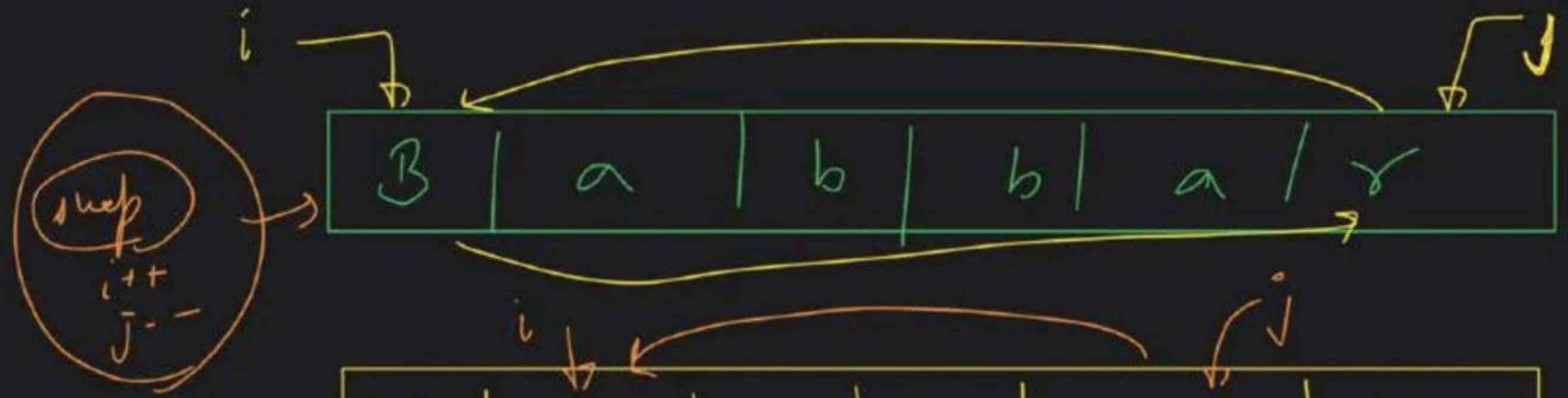
X³³

13

1 hr

20 min

40 min



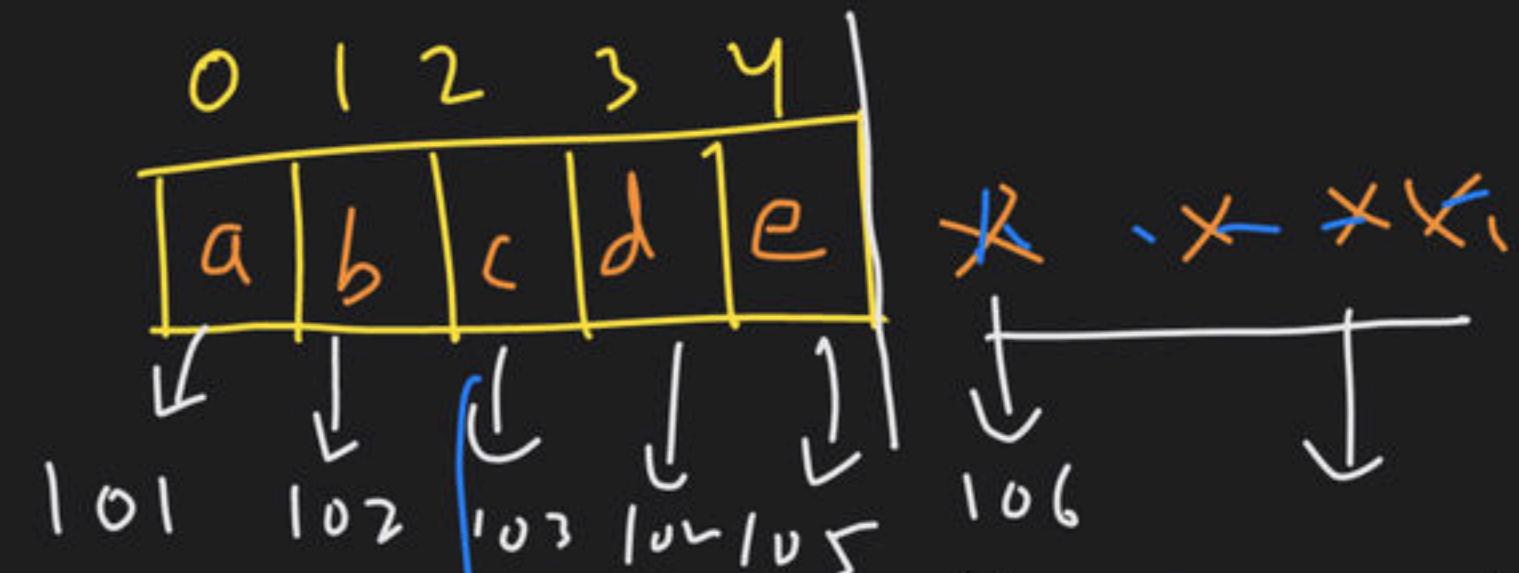
Hard limit ←
char a[5];

cin >> a;

↓

101 102
a b

cout



a b c d e f g h i j k l m
⇒
- Kisi aur
↳ garbage

a b c d e —————

~~Pt~~ alpha

legal add -

(Pubg)

a b c d e

x x x

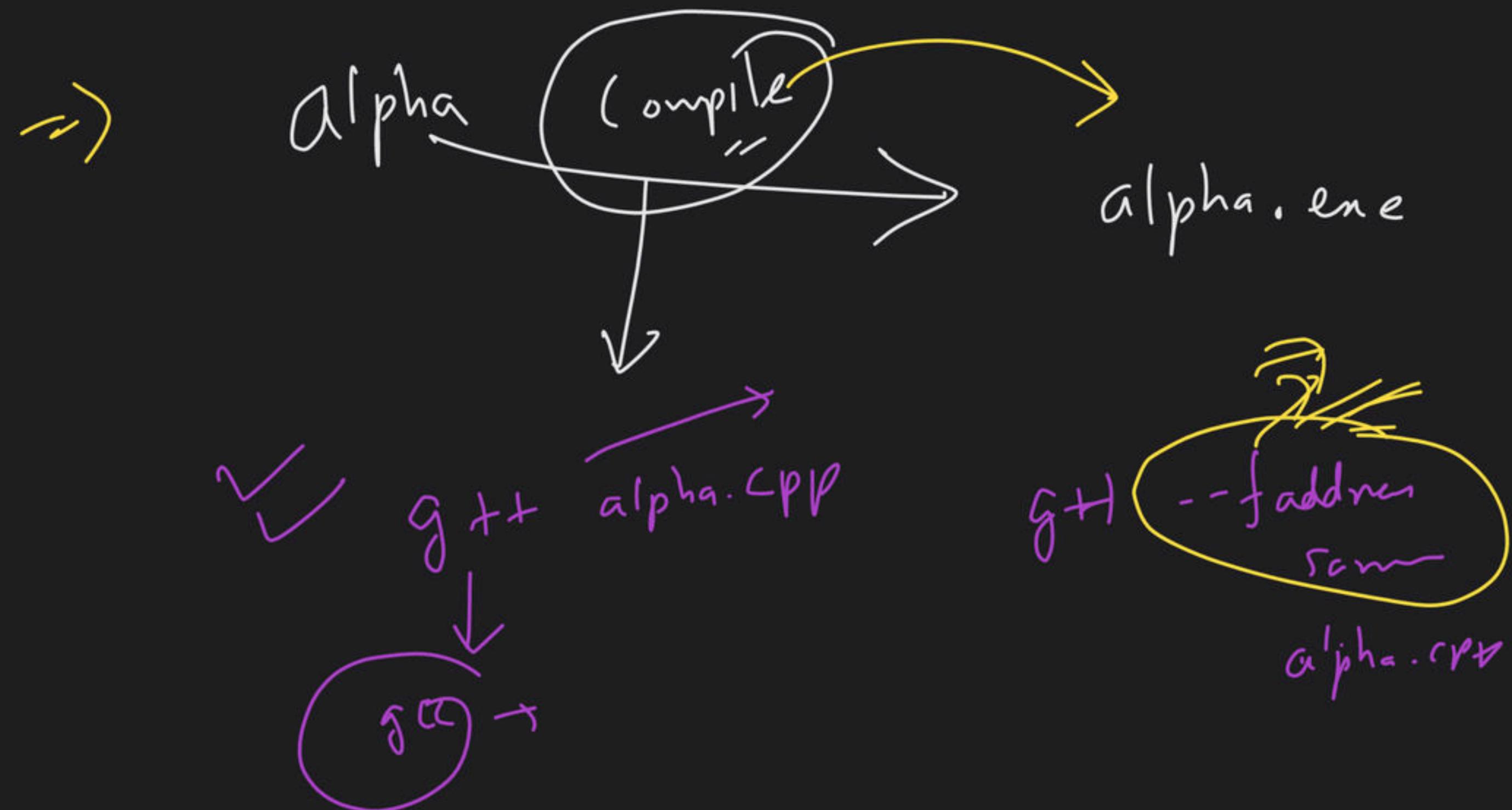
illegal

ad -

R

ah -

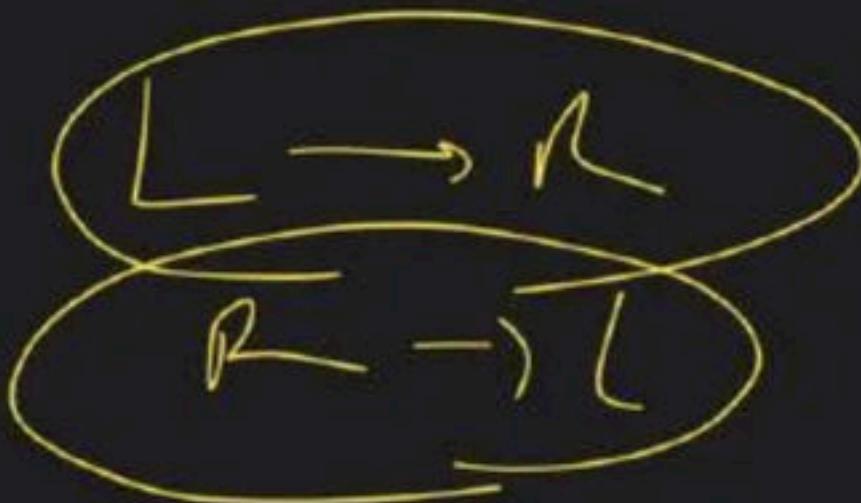
ab c d e -



~~did i~~

Palindrome

DAD



MOM
MAM
MADAM
NITIN

R	A	C	E	C	A	R
~	~	~	~	~	~	~

WOW
NOON

(L → R) → RACECAR

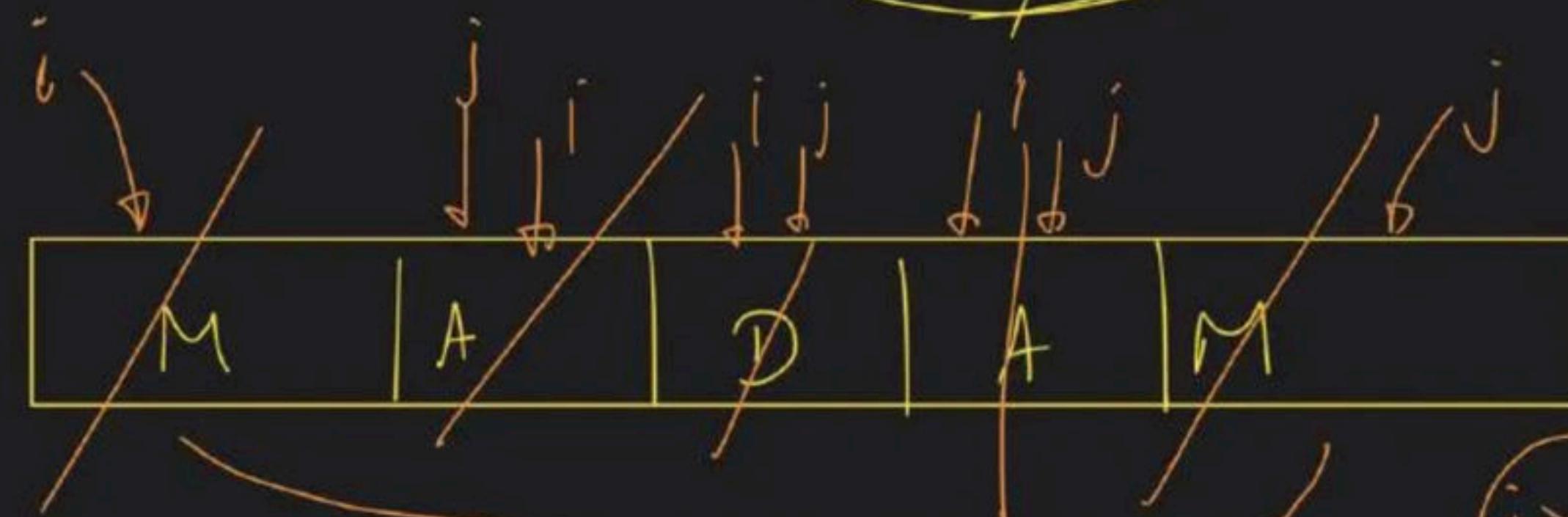
KANAK
LOL

R → L
RACELCK

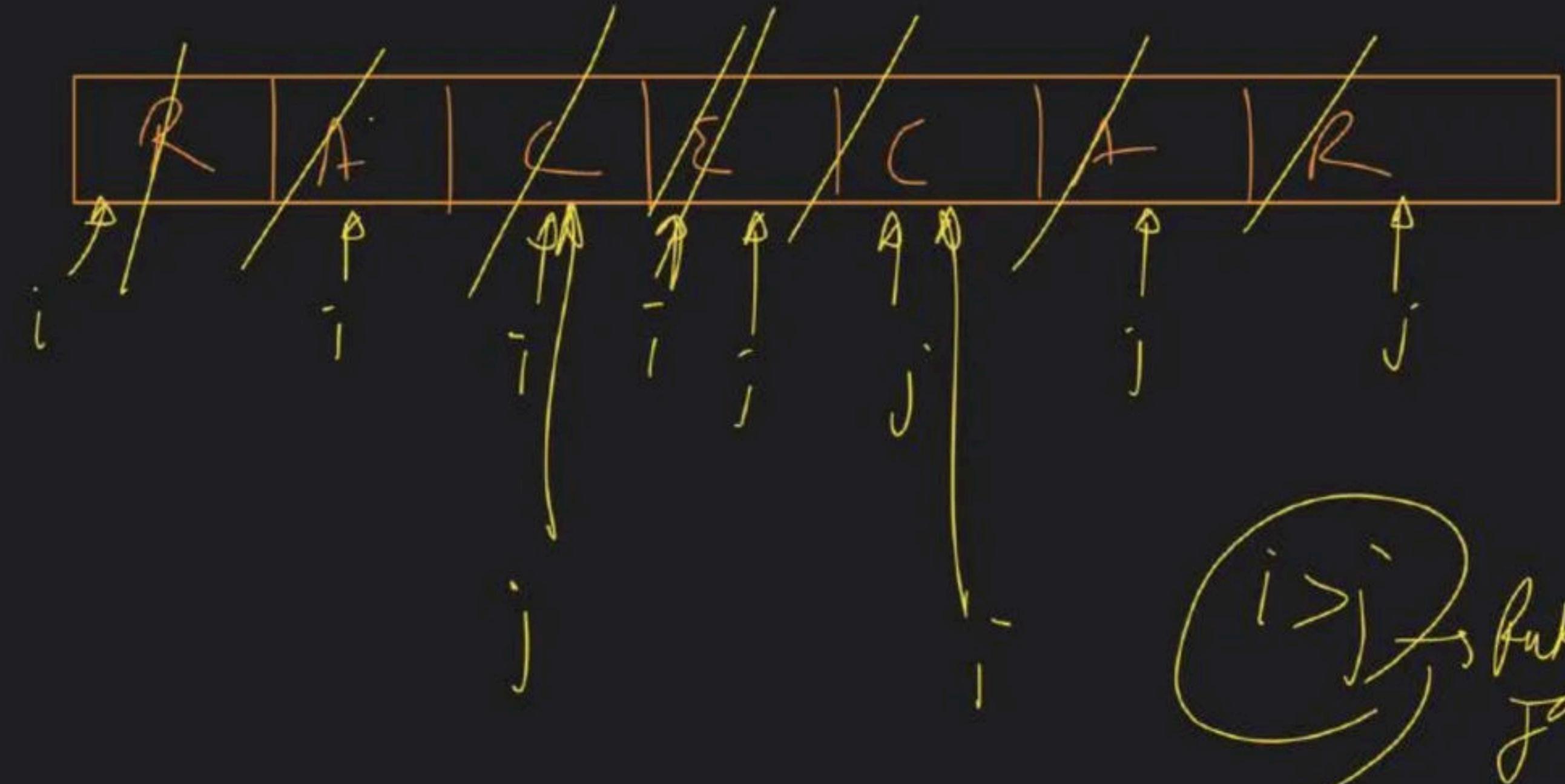
ip → word



q in drome

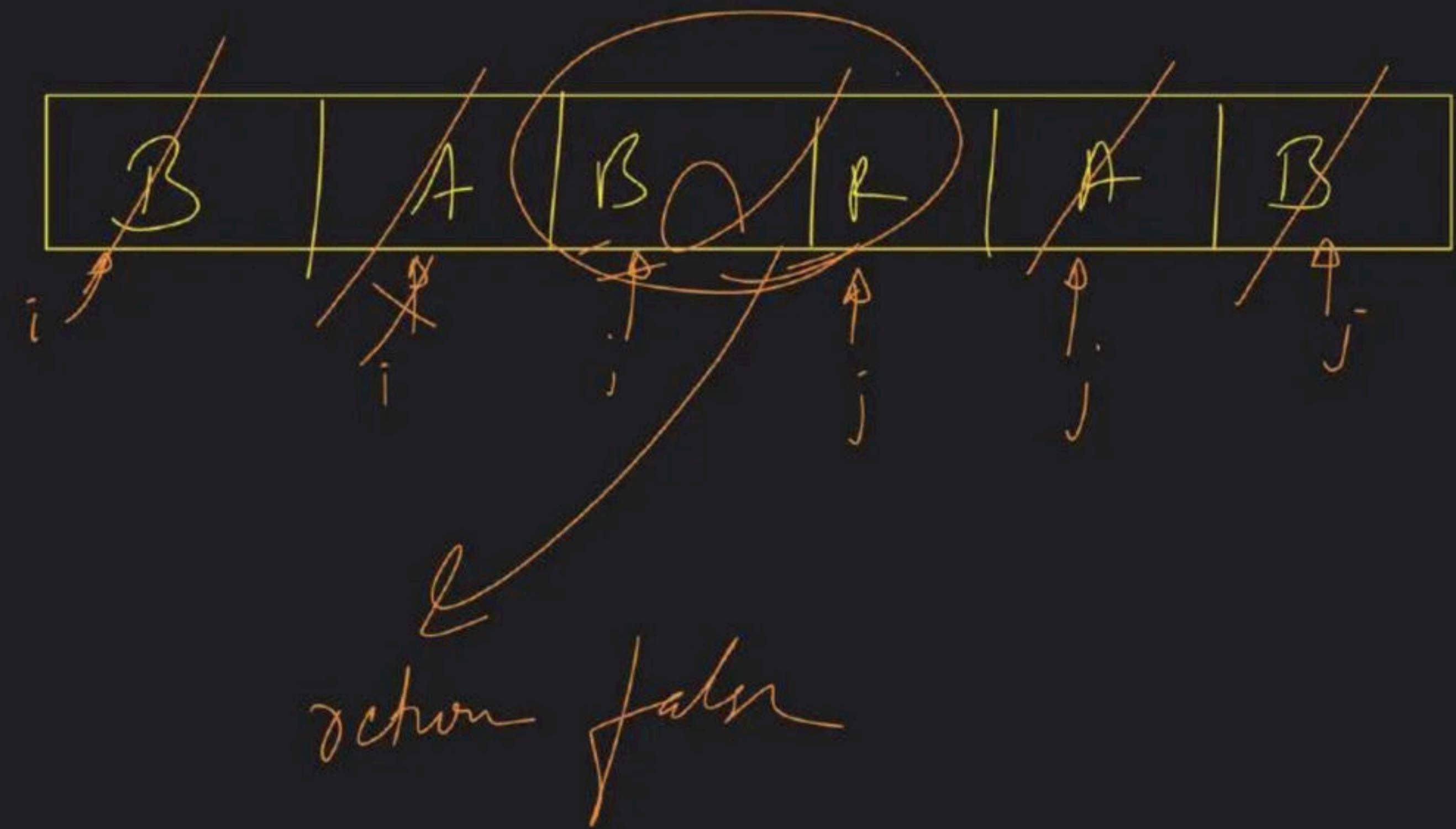


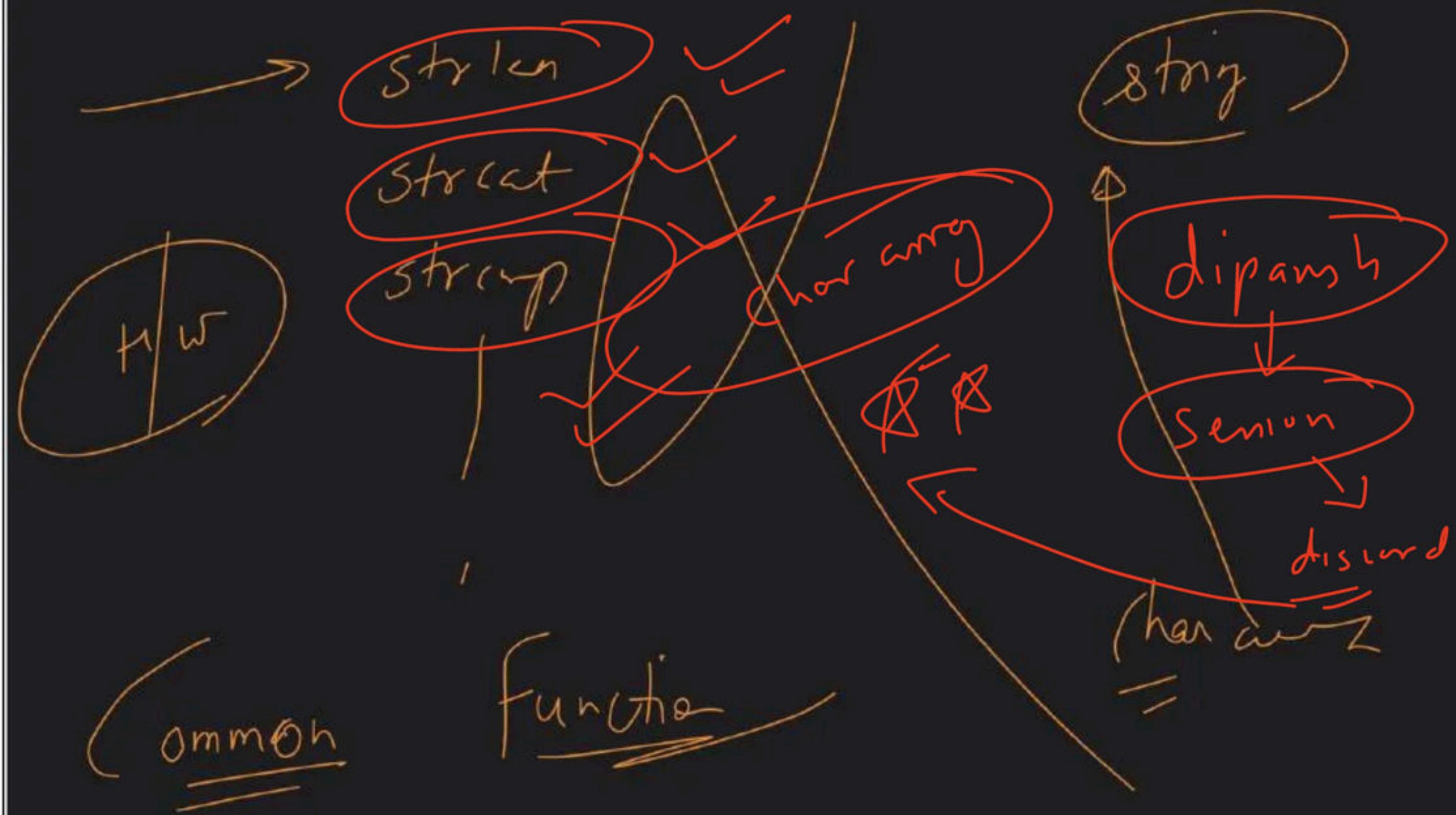
(i,j) → pair



True

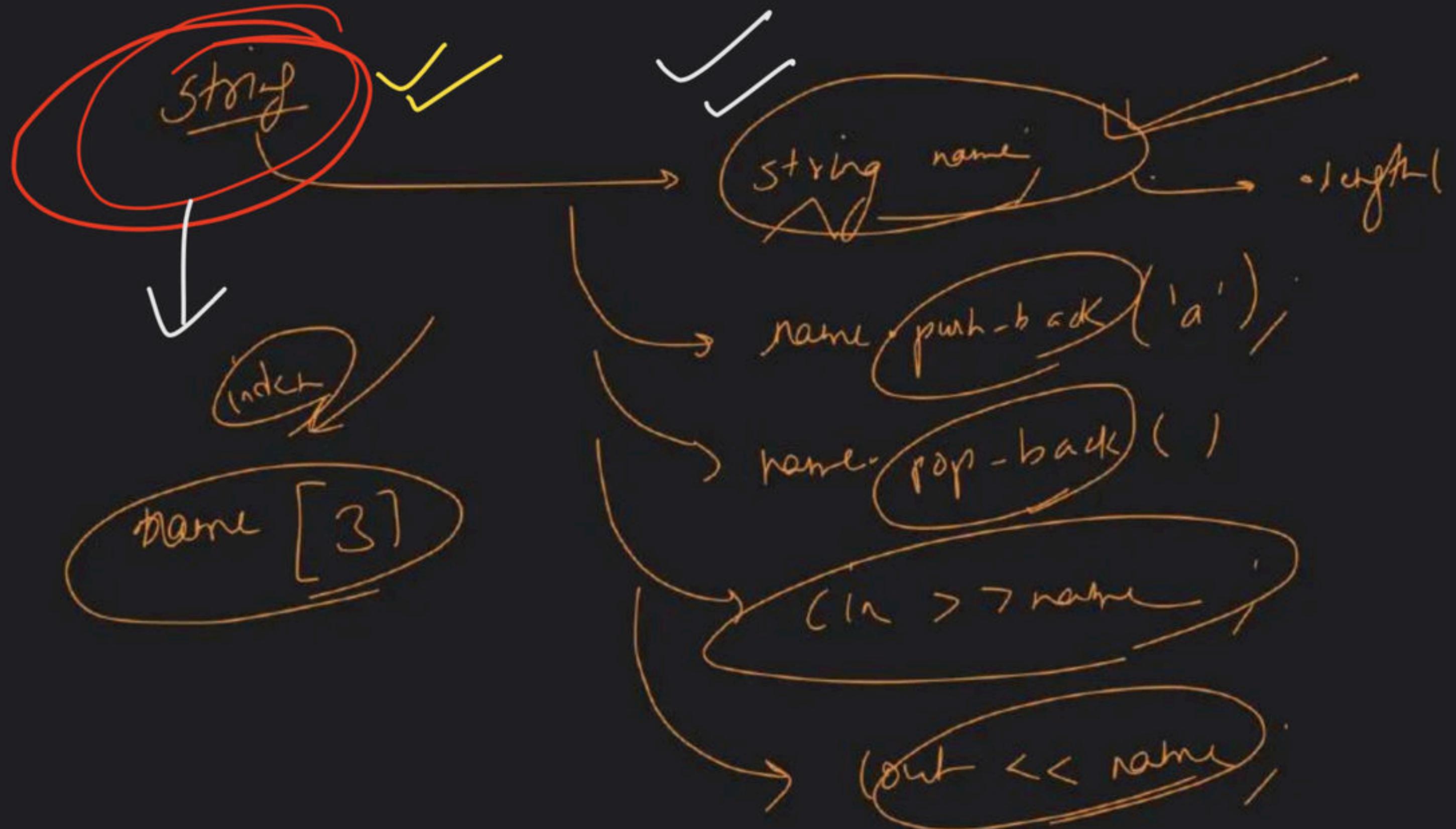
$i > j$ fakt
jaw





String

char
array



`vector<vector<string>> Beta;`

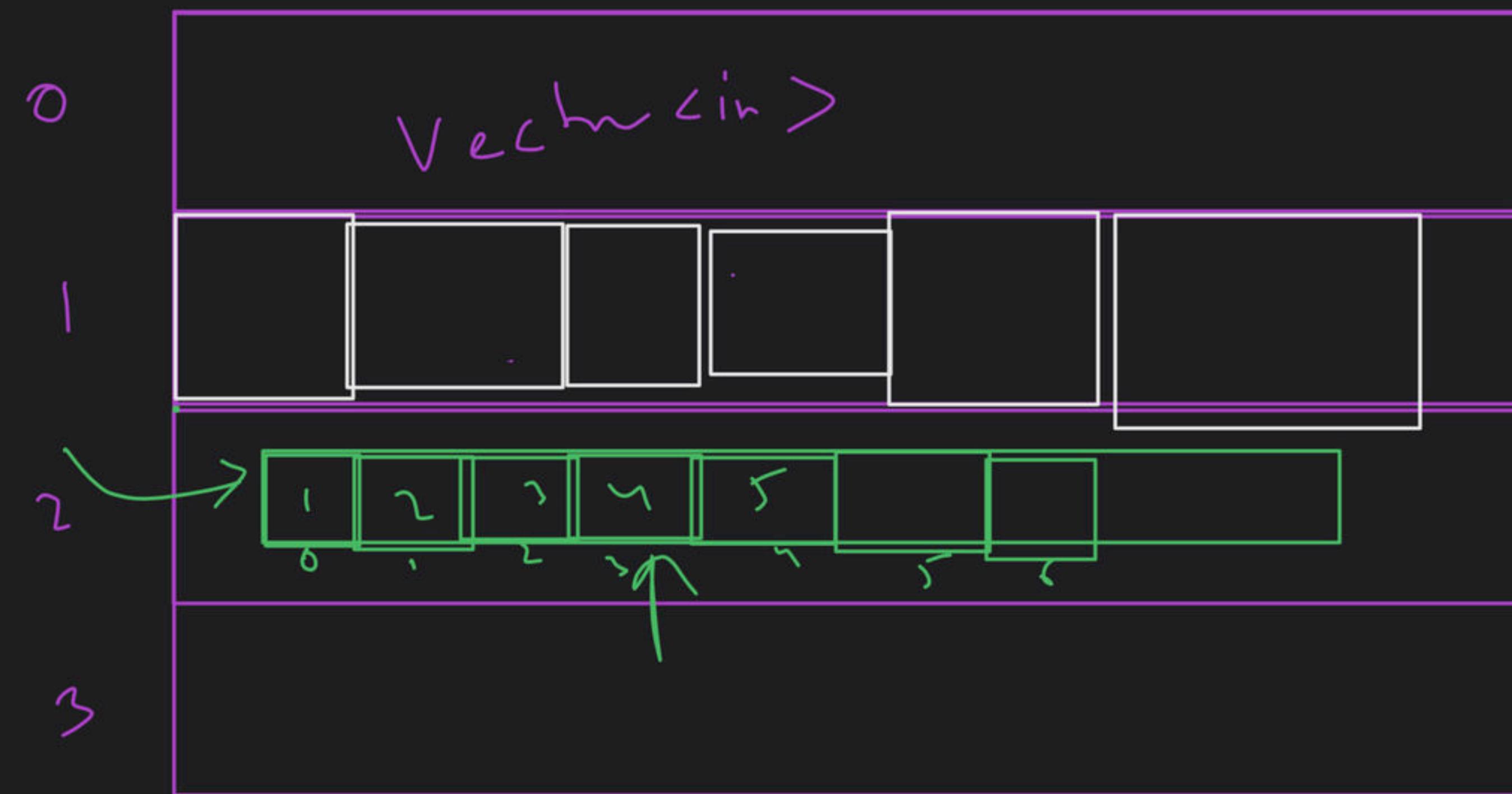
`Beta[0][1][2] >= 'S'`



`Beta[0] >= vector<string>`

`Beta[0][1] >= AUS`

`vector<vector<int>> A;` `A[2][3]`



0

1

2

3

oo	e	c	p	

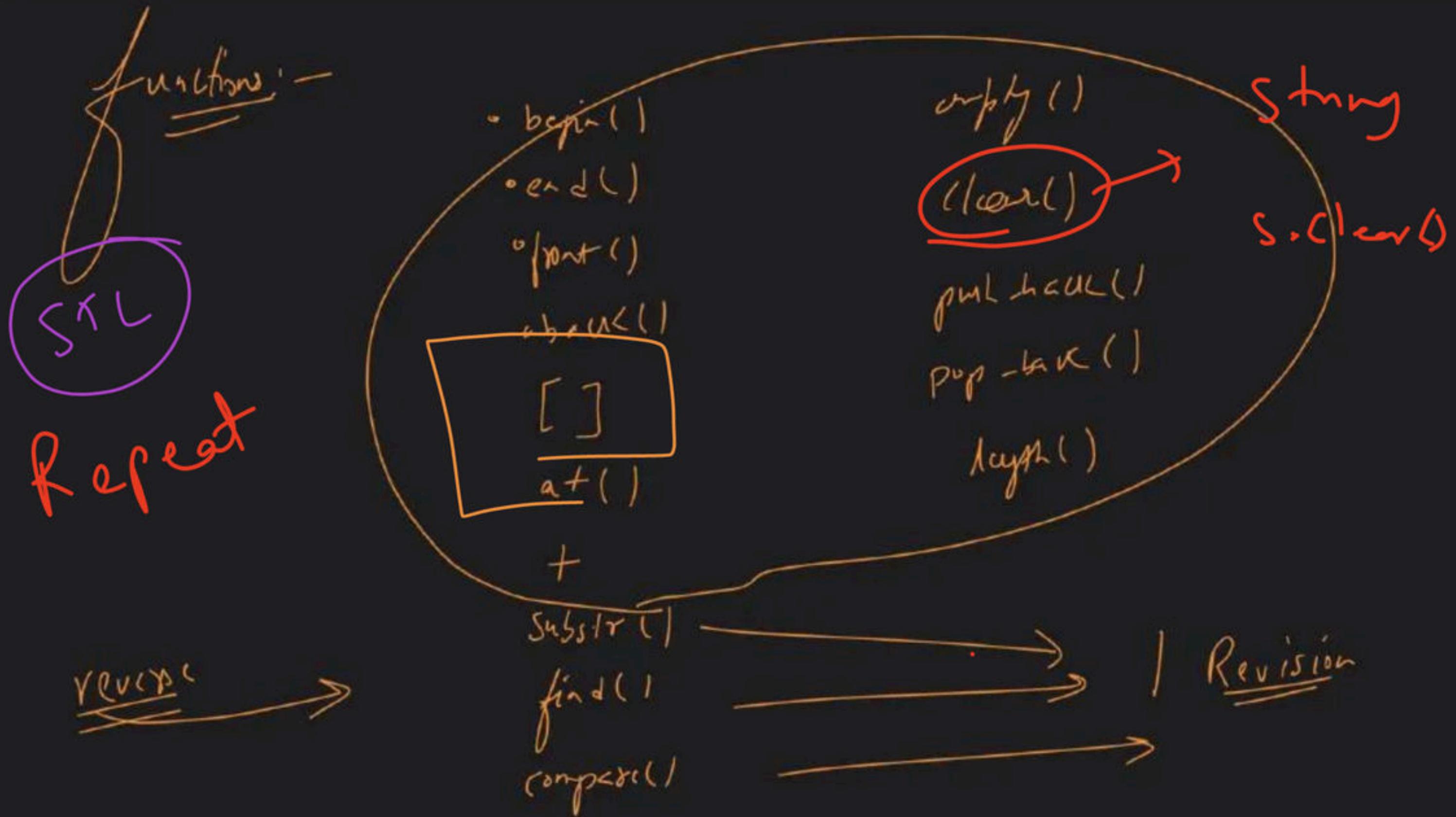
vector<int>

1234567

vector<string> a

alpha v k Austria never = index

a[0] → alpha



Kal

→ 8 : 30 pm



Extra class - Stories
Questions











































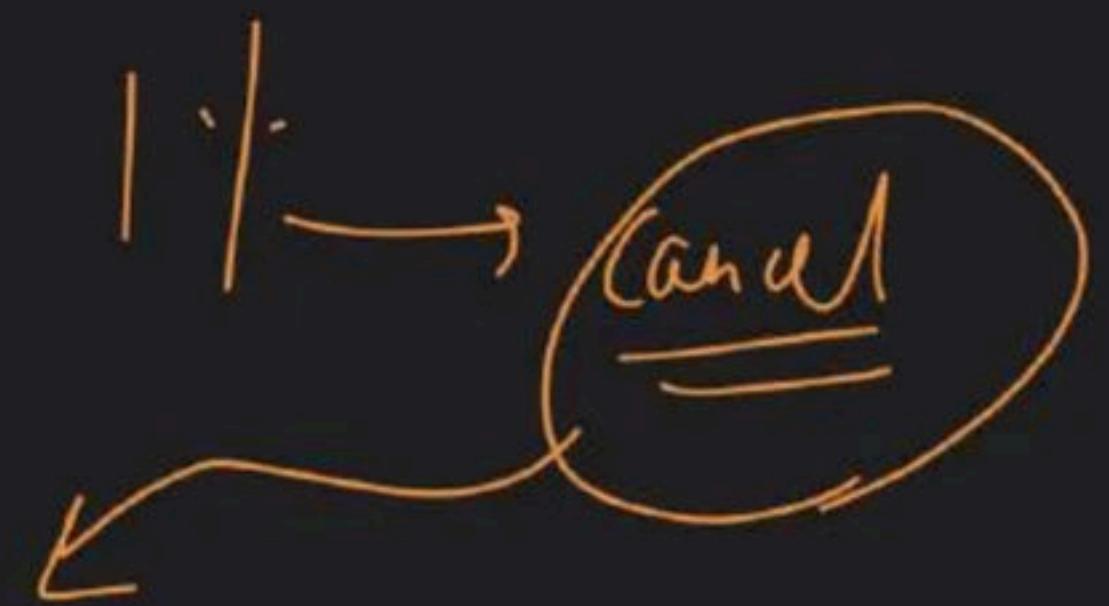


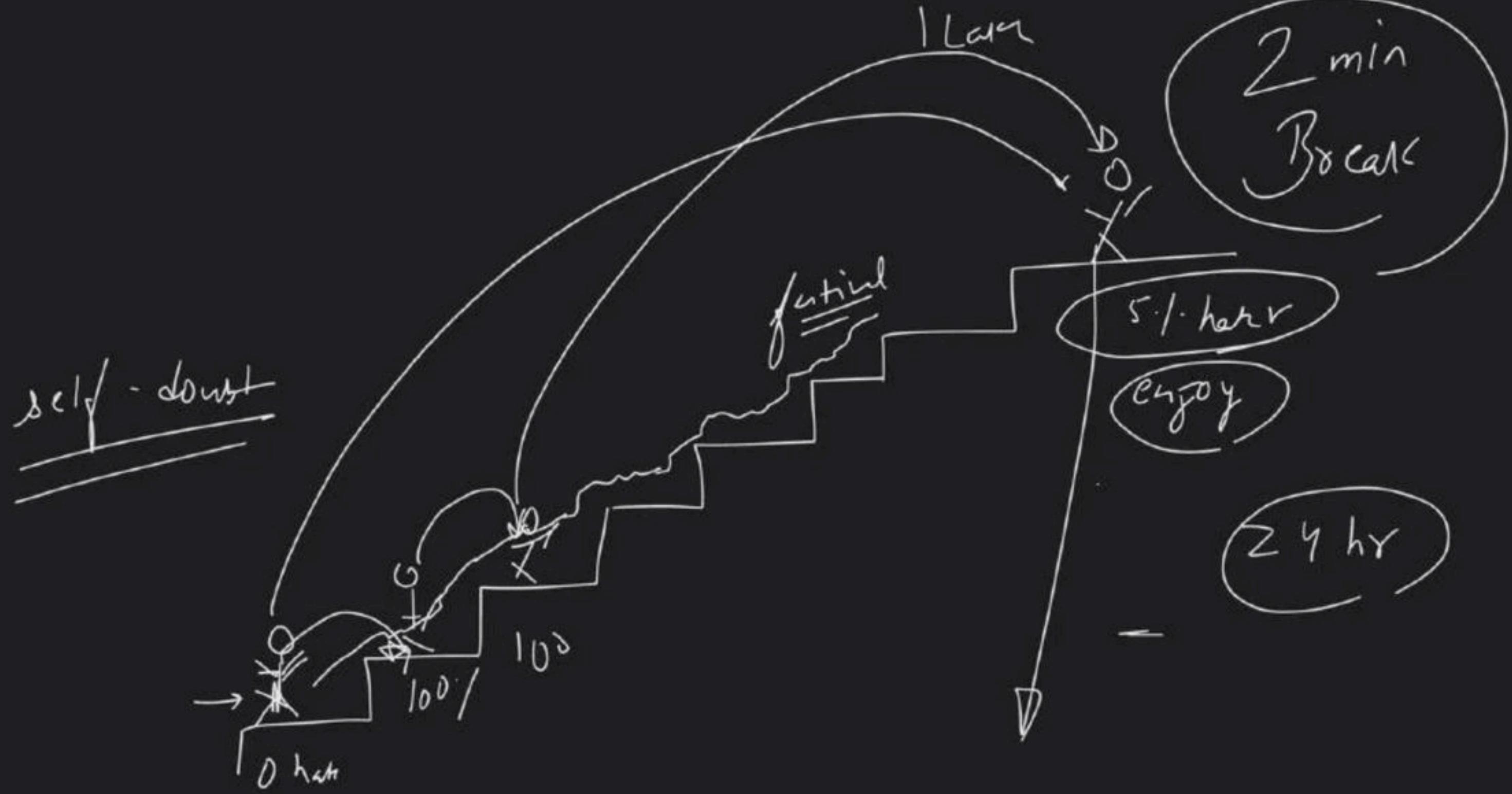


99.1

Char Arrays & Strings - Class 2

Special class





→ Remove all adjacent duplicates in a string

i/p → string →

"abbaca"

abbaca

o/p

abac

Approach

Now?

abbaca

abaca
ddca

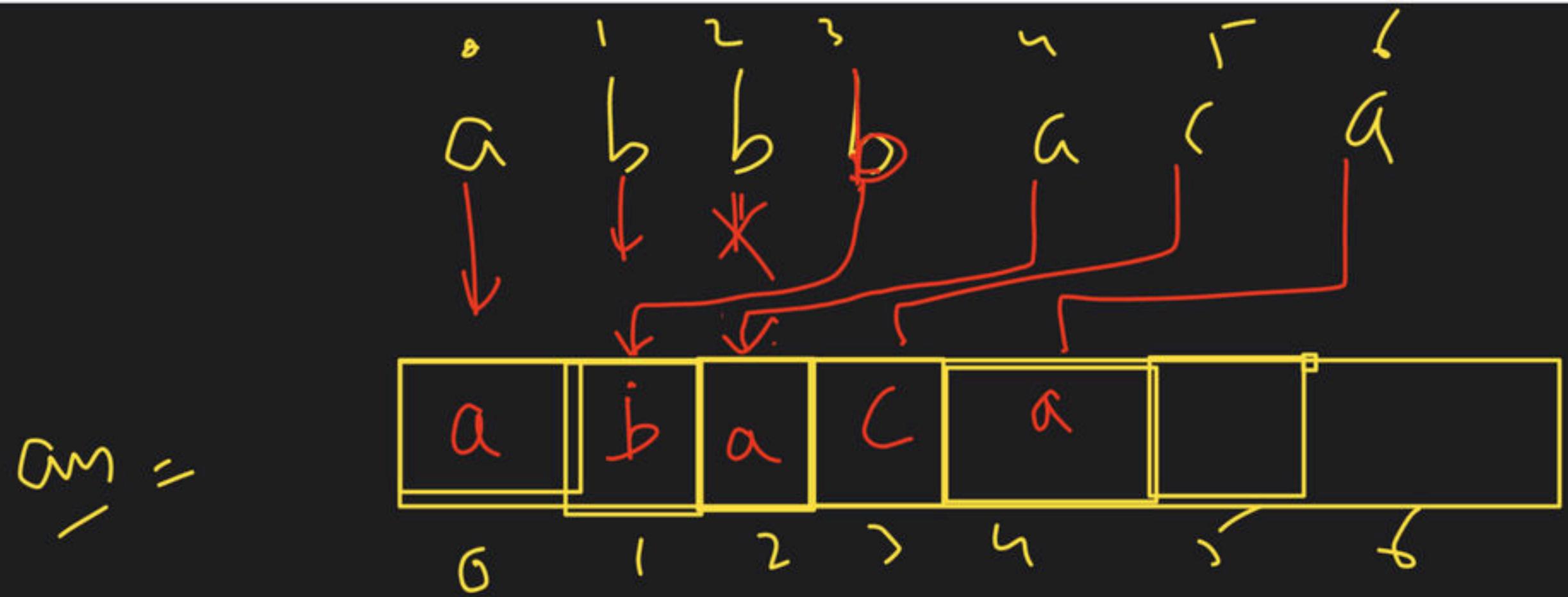
fa

$a \ b \ b \ a \ < \ a$
 1 2 3 4 5
 ↓ ↓ ↓ ↓
 b X X
 ↓ ↓
 X X
 ↓ ↓
 Pop
 ans = a

a ~~b~~

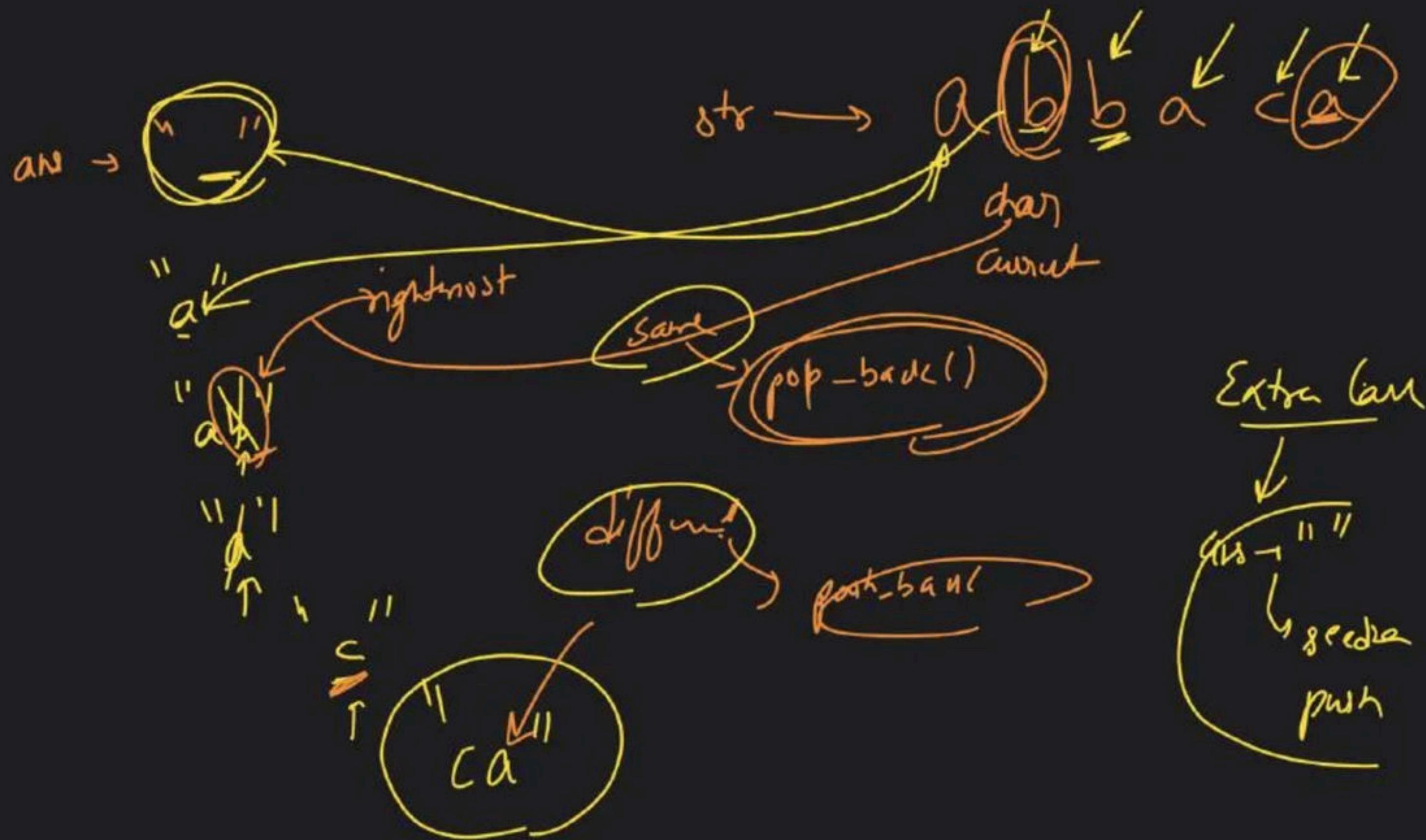
$a \ b \ b \ a \ < \ a$
 1 2 3 4 5
 ↓ X ↓
 a a < a
 ↓
 ca

aabbaca
 if (ans.empty())
 || curch != ans.back()
 Push curch;
 else if (curch == ans.back())
 ans.pop();

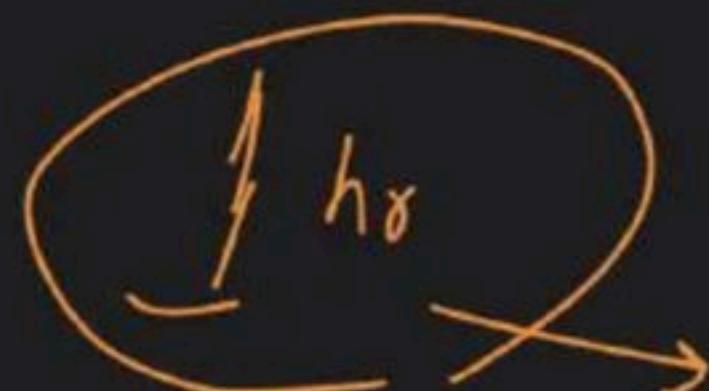
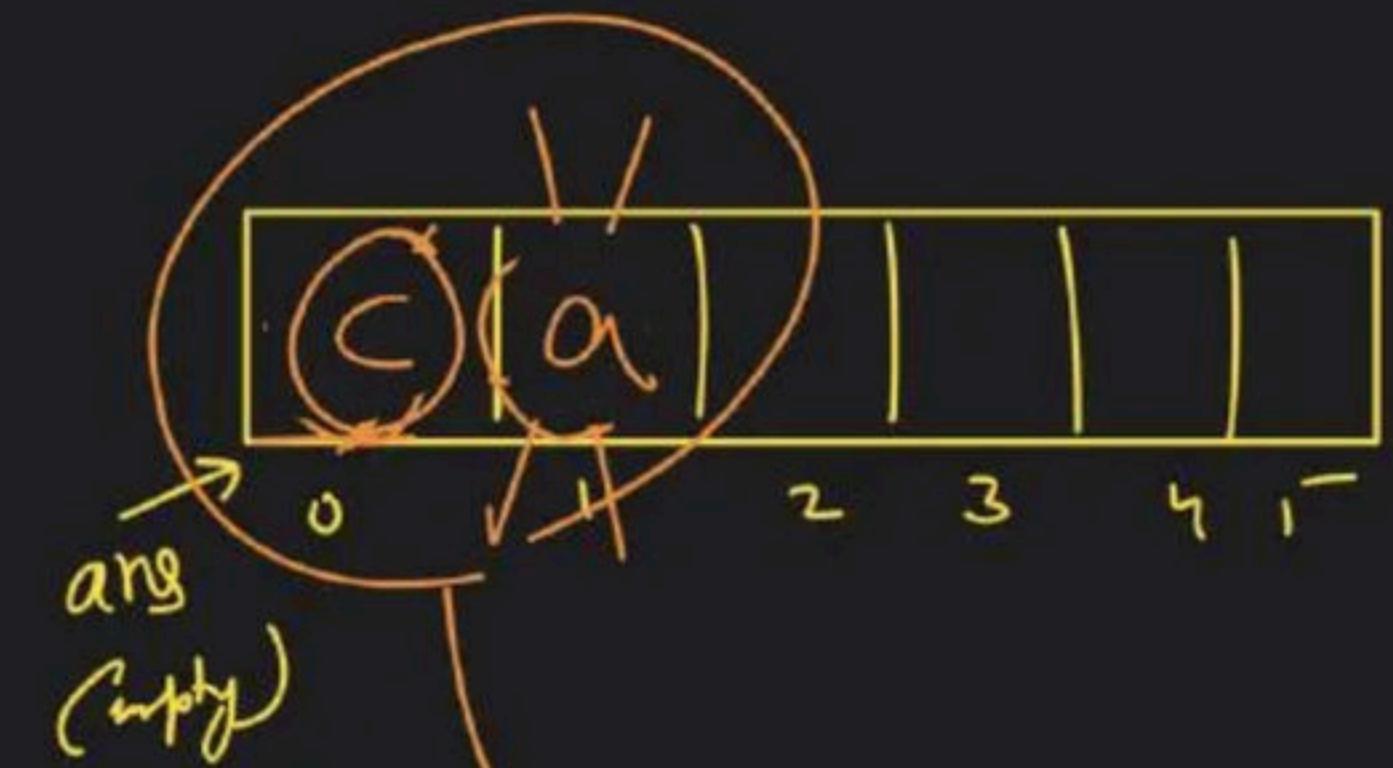
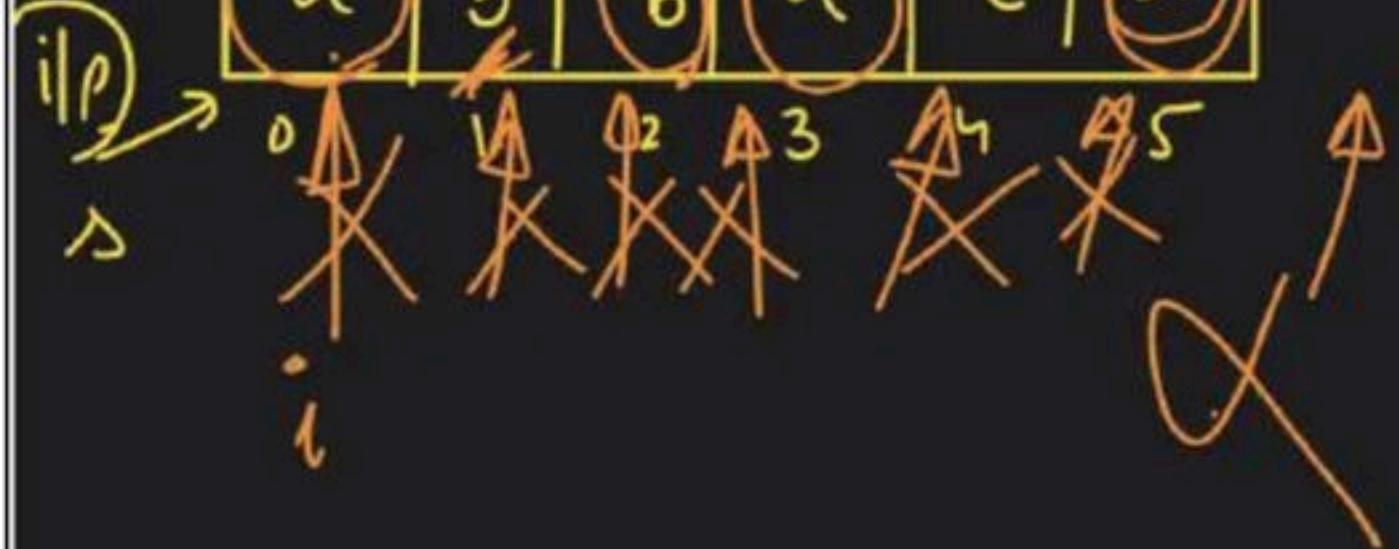


abaca





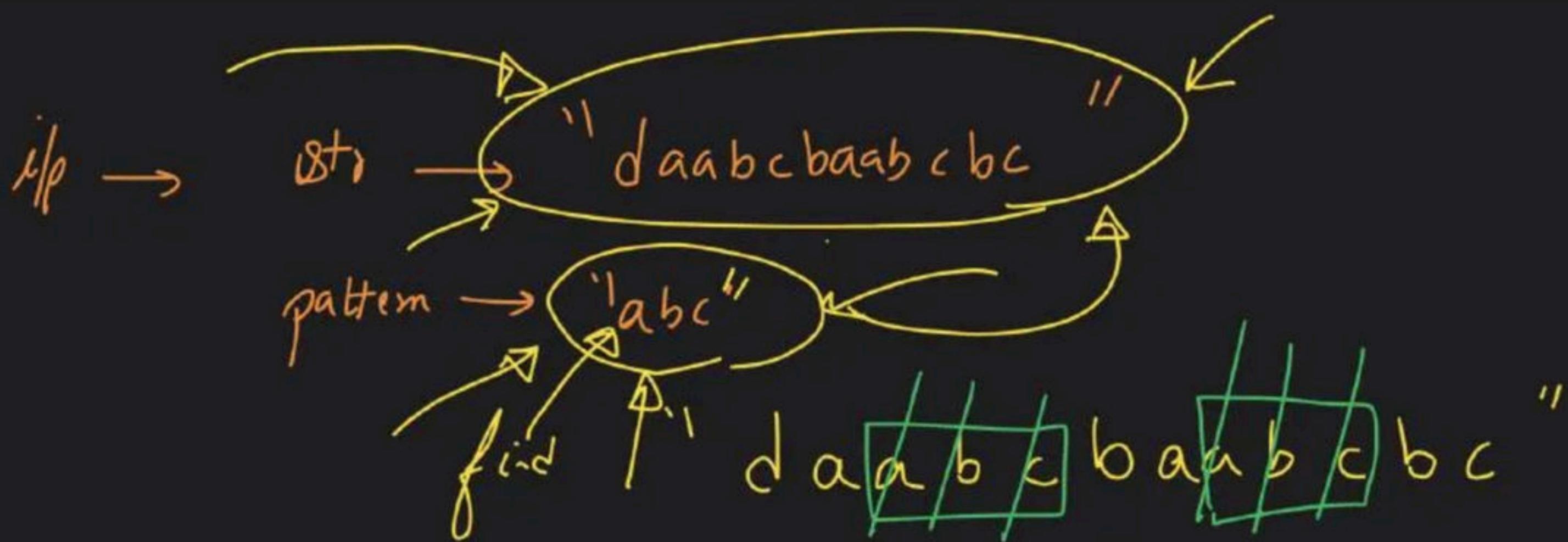
a	b	b	a	c	a
---	---	---	---	---	---

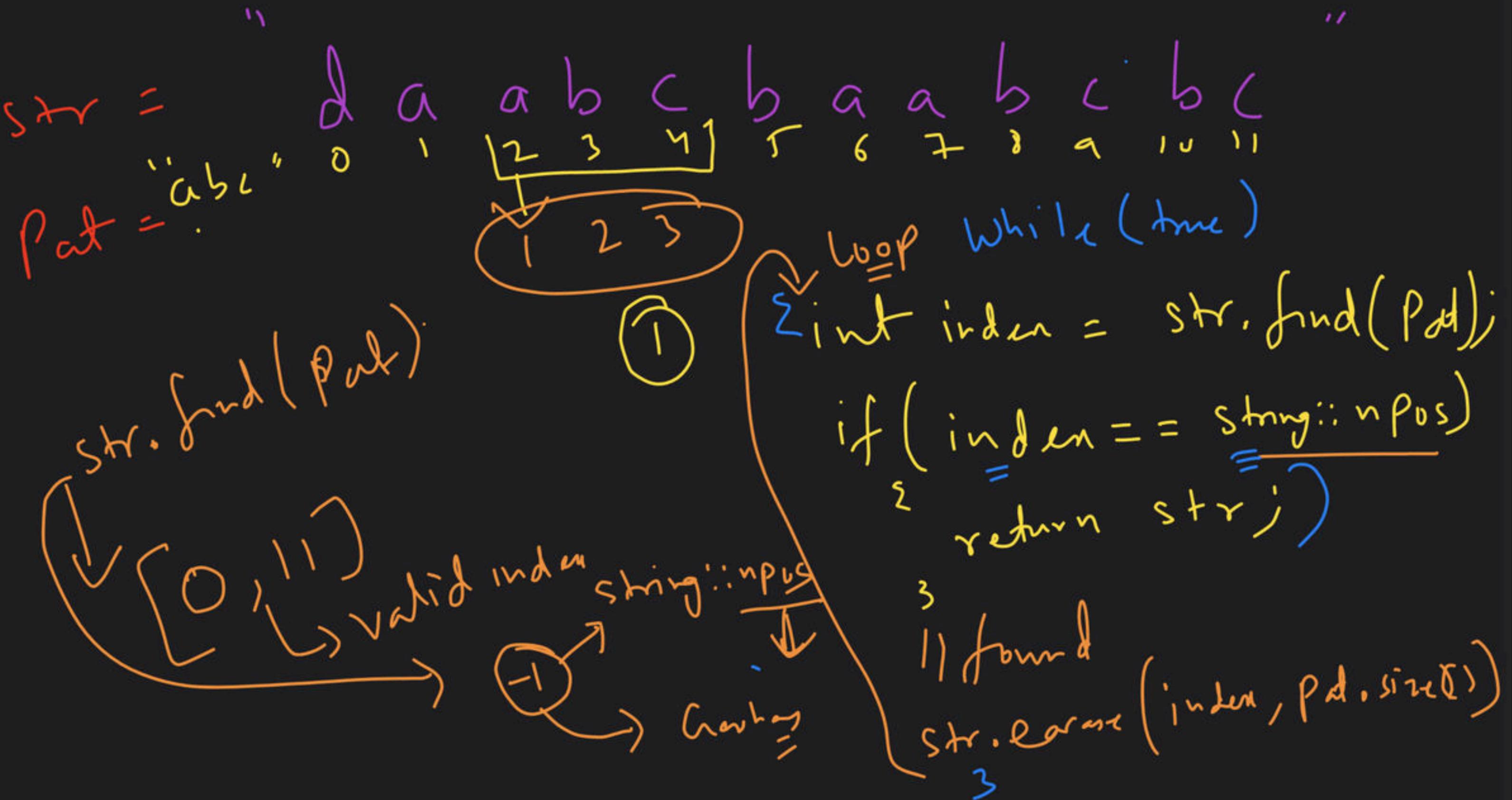


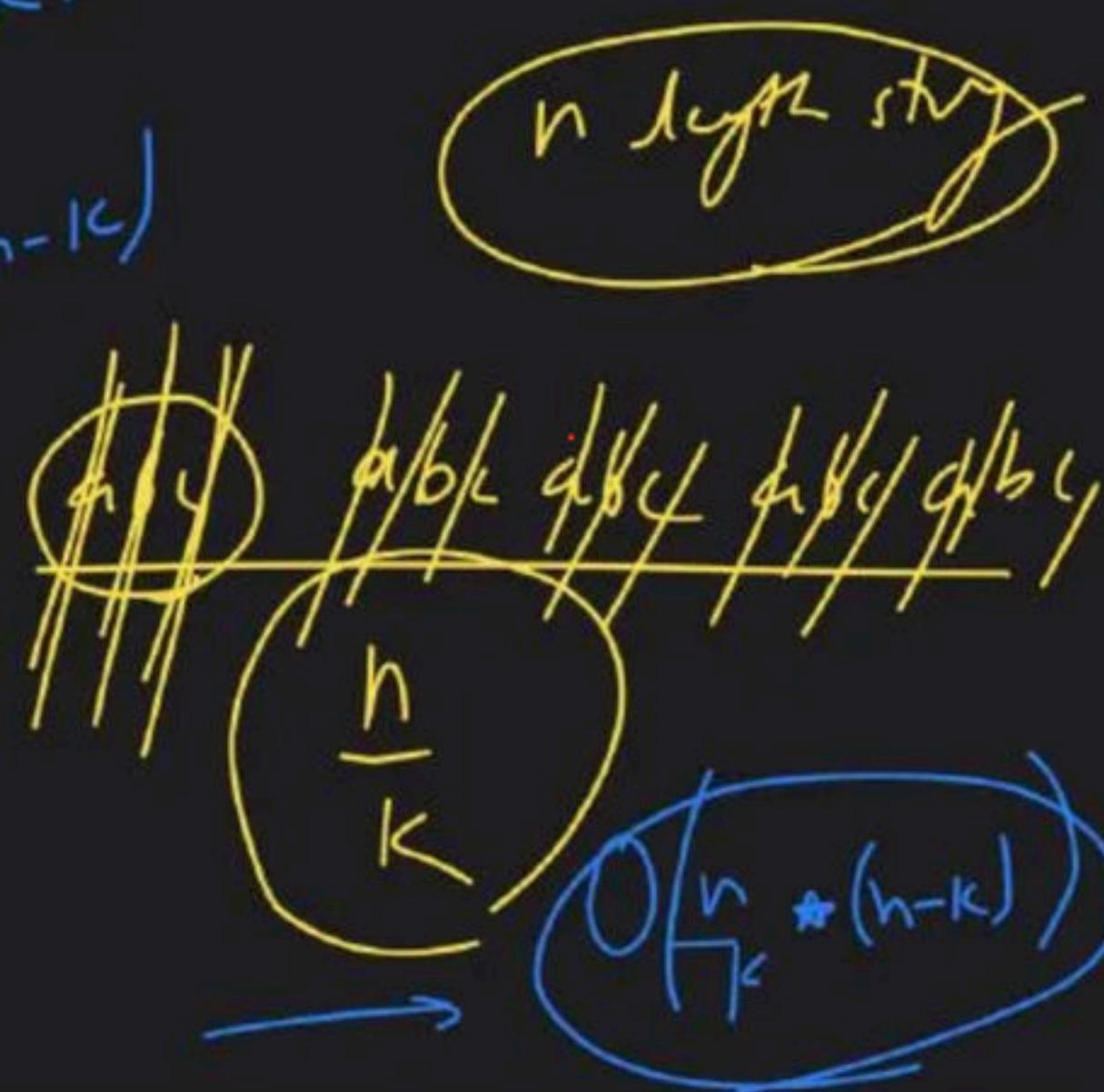
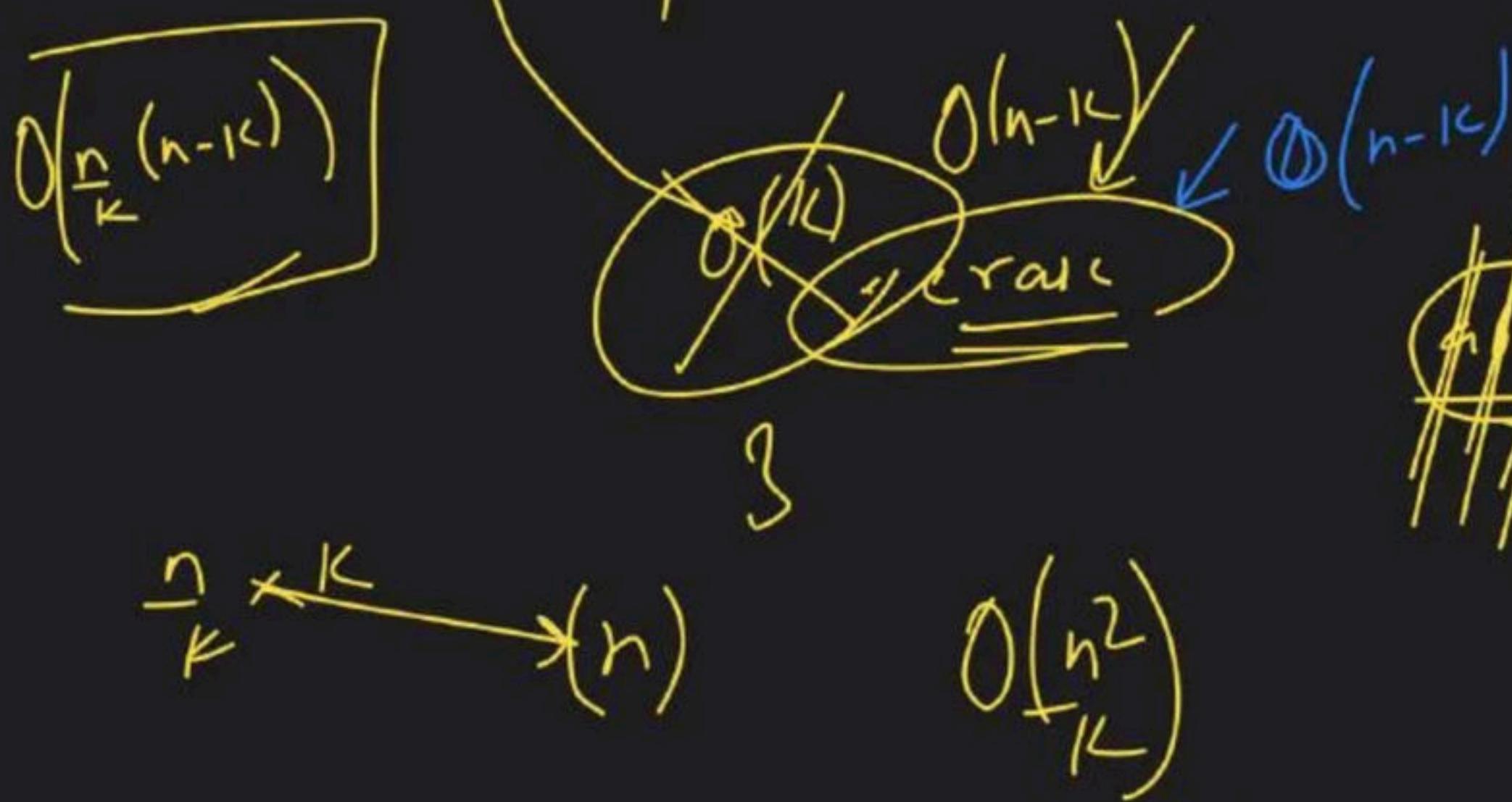
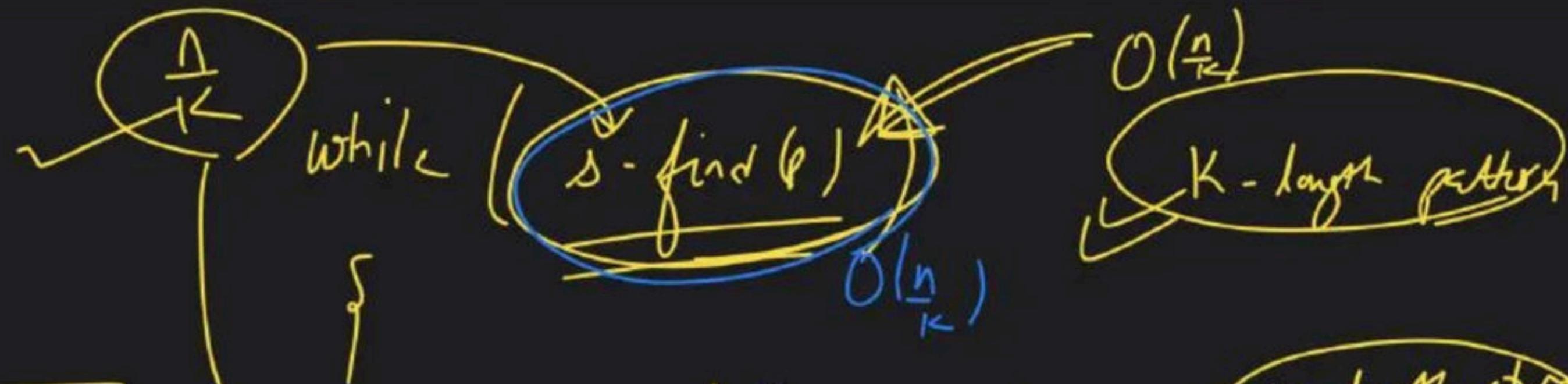
Assignment

Rec Solution

func i







Pattern

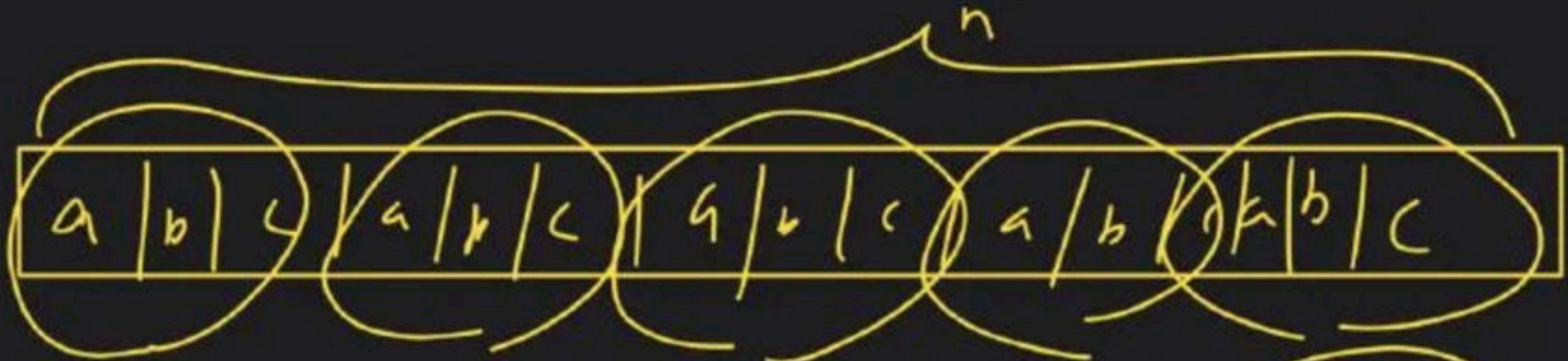


K-length



"abc"

K=3



$n = 15$

Pattern

$$\text{occuring} = \frac{n}{K}$$



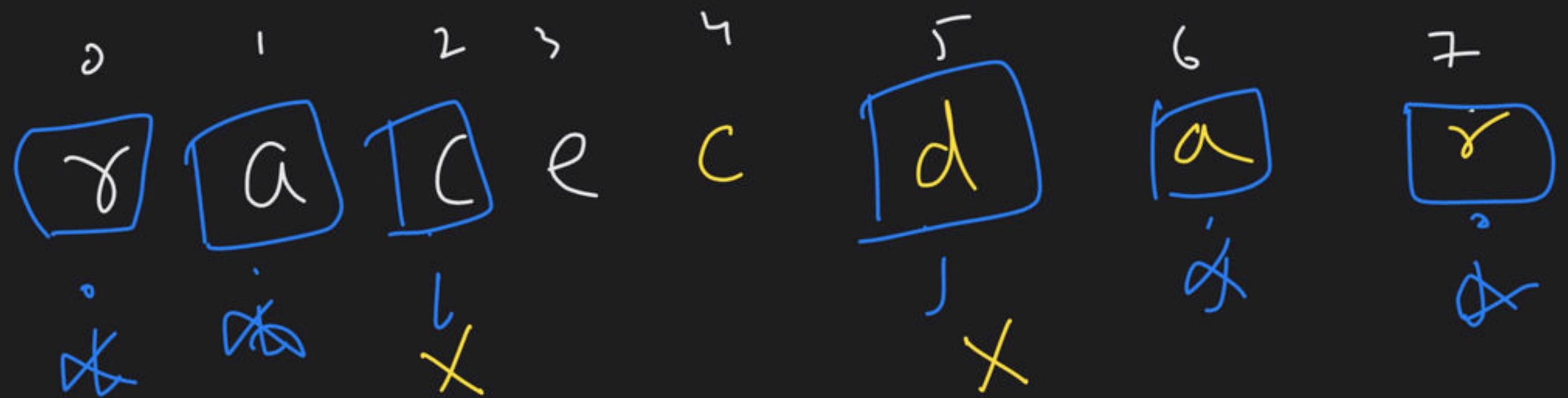
✓ race car \Rightarrow ✓

✓ race card car \Rightarrow ✗

race() car () \Rightarrow

γ a c e c a γ





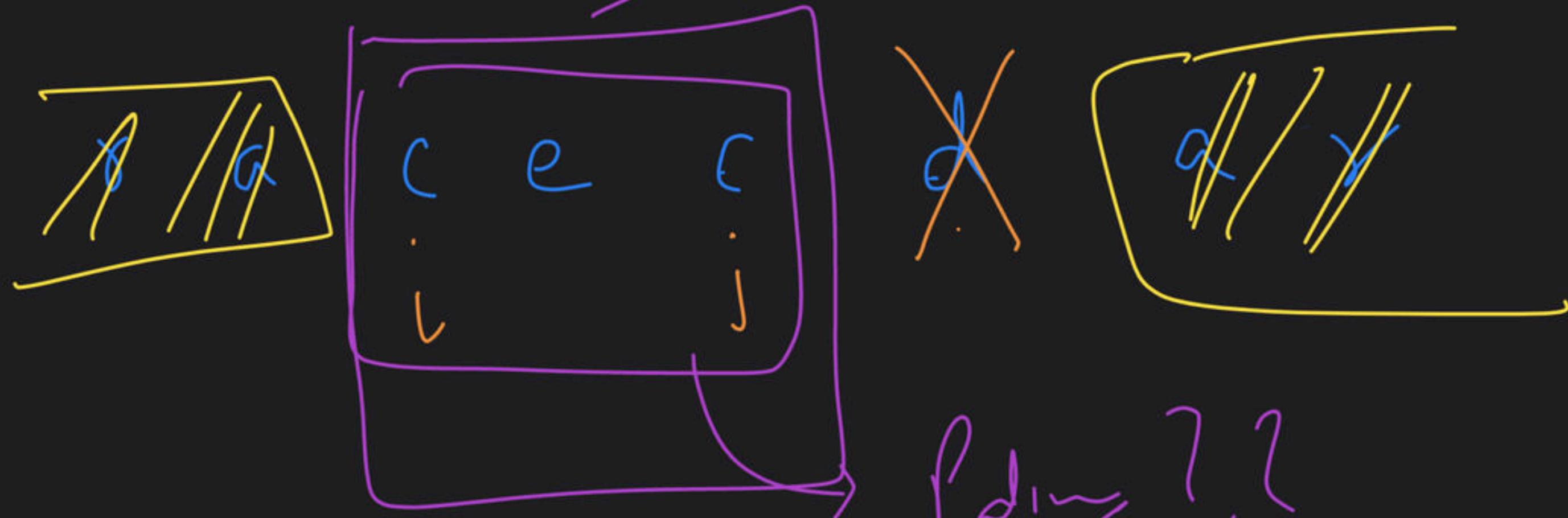
① Let's remove 'c' को क्या Palind
har?!, if ($a[i] \neq a[j]$)

Yes

\leftarrow ~~a~~ \times \leftarrow ~~e~~ \leftarrow ~~c~~ \leftarrow ~~d~~ \leftarrow ~~j~~

②

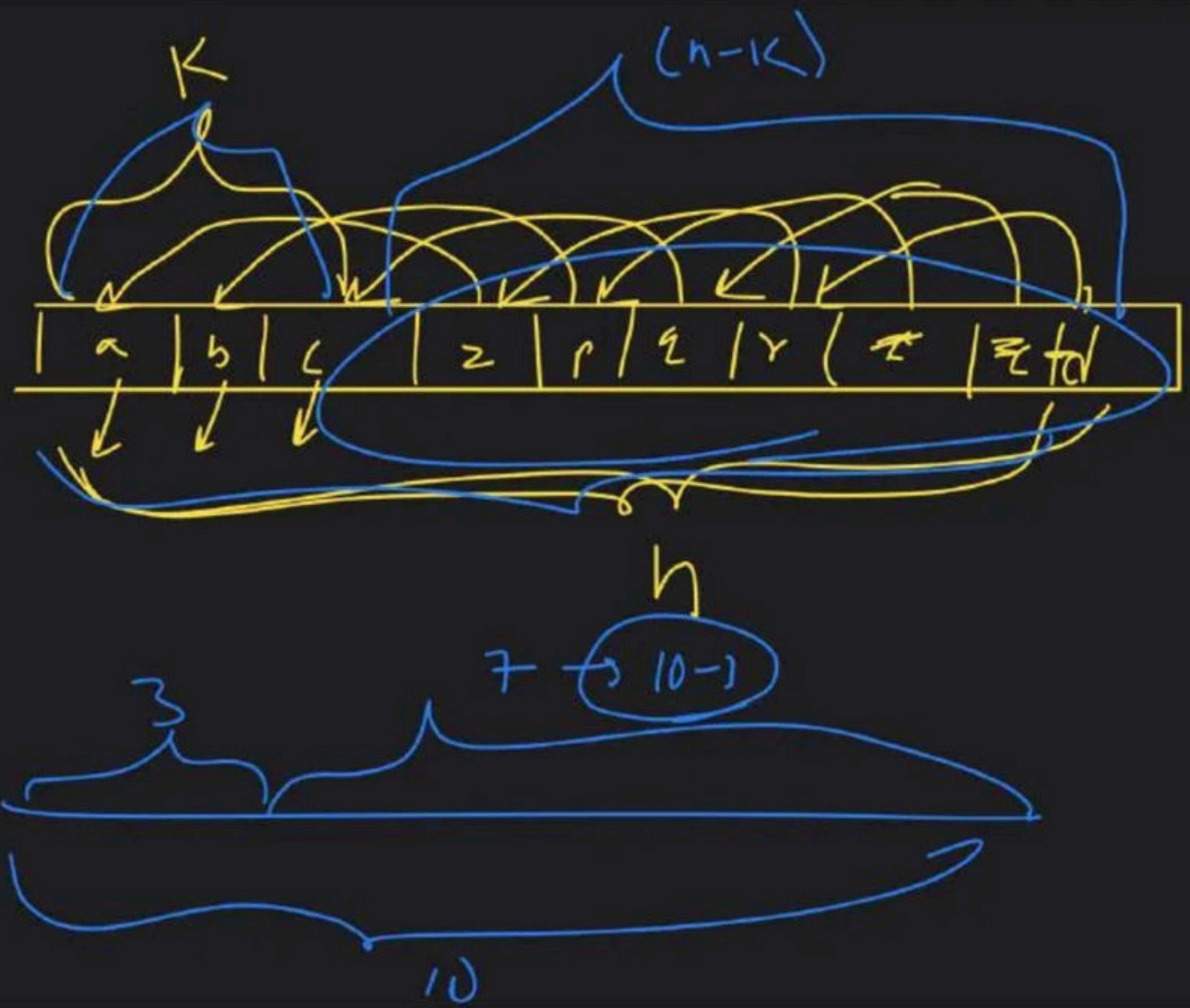
Len ven 'd' range

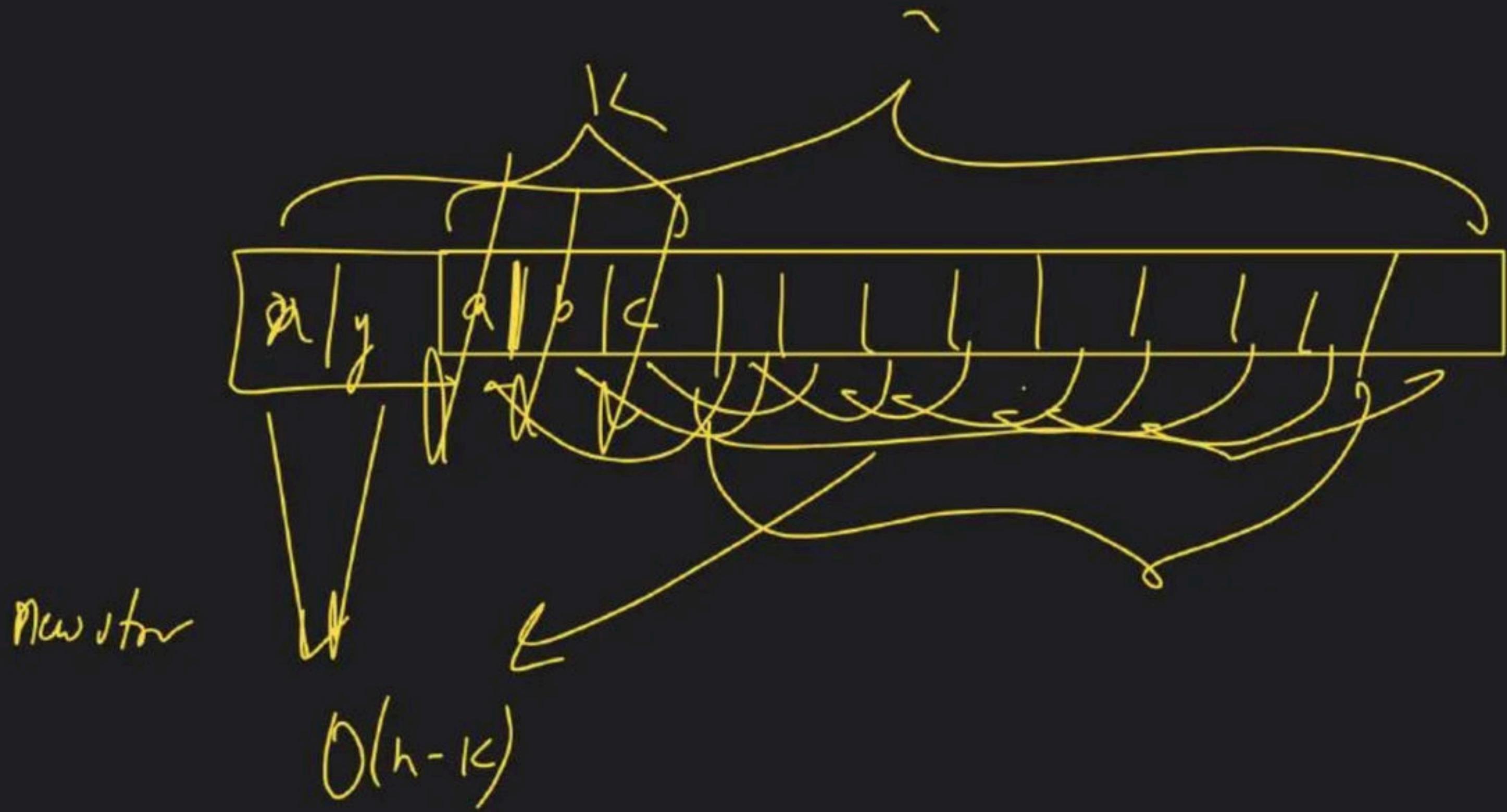


Plein ??



yes



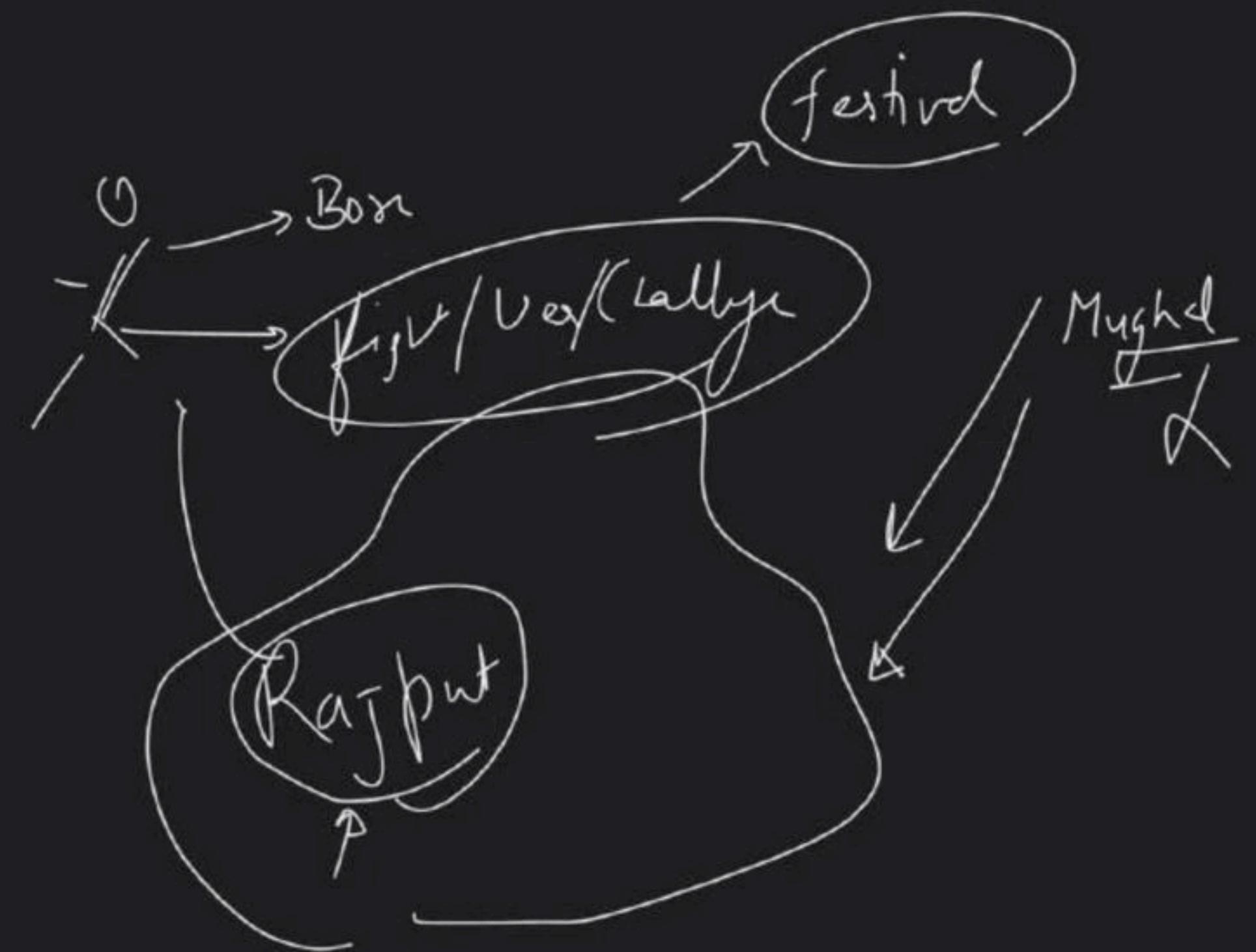


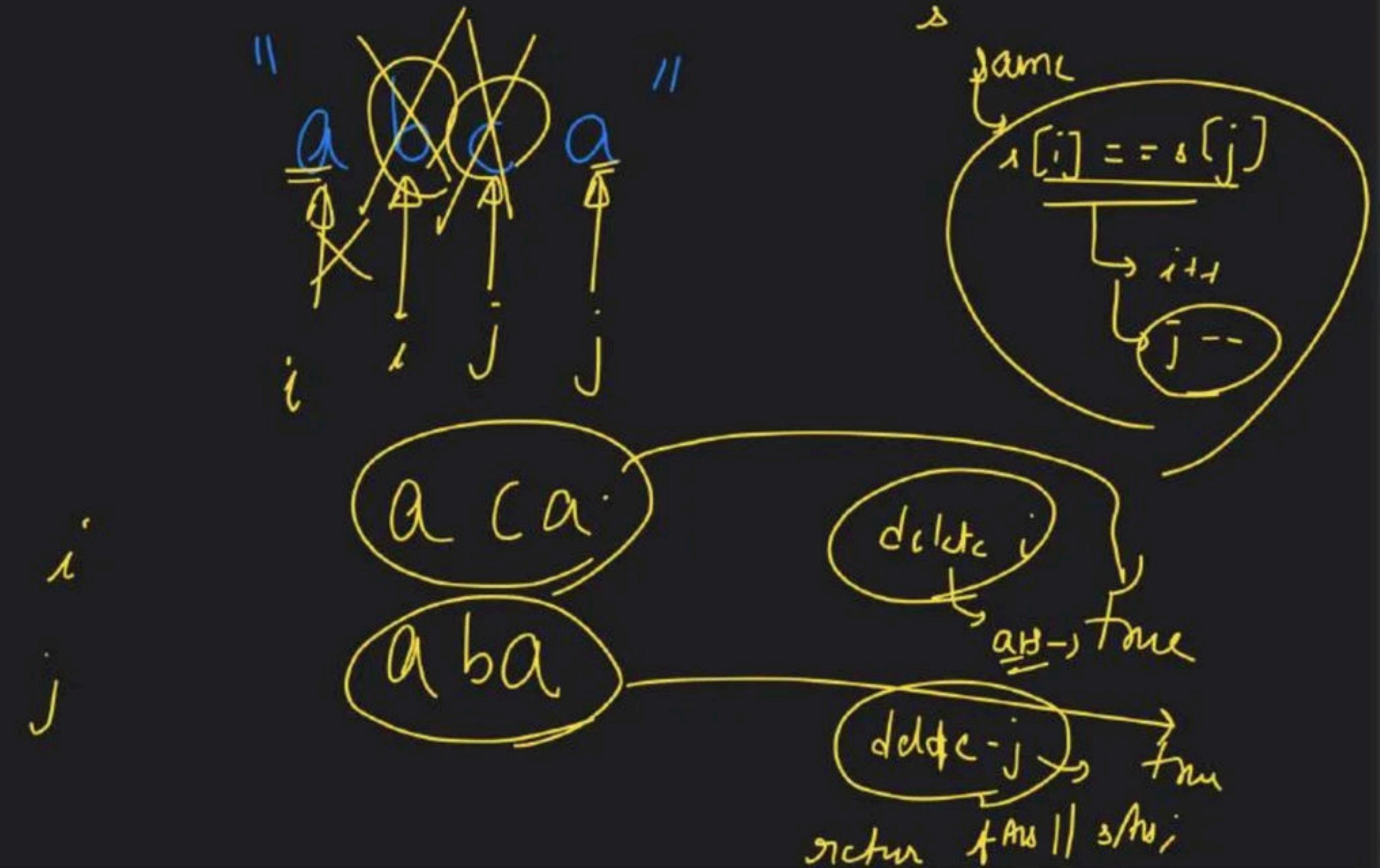
a z h h z y

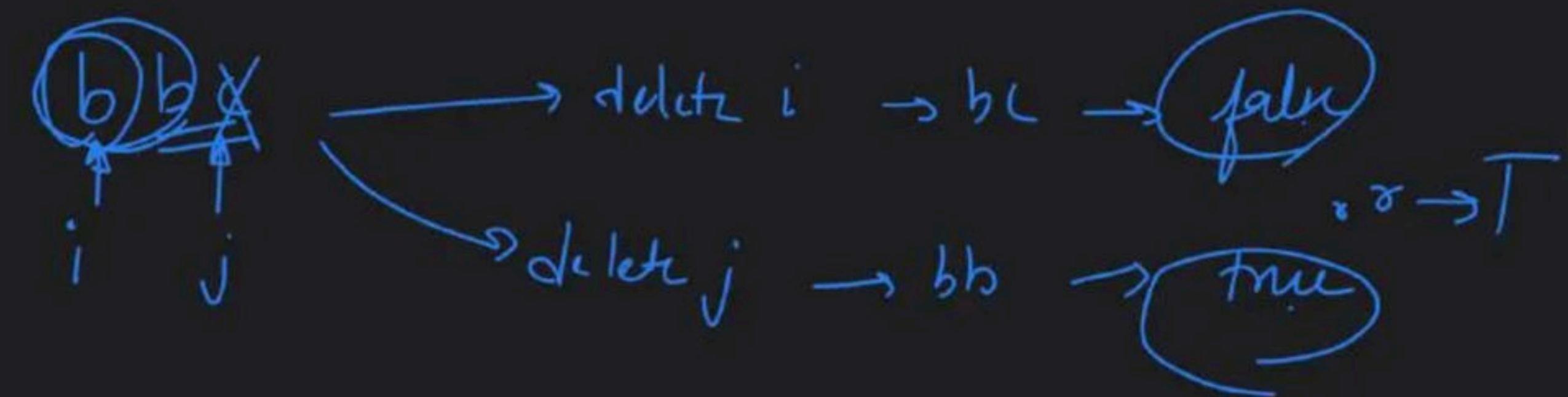
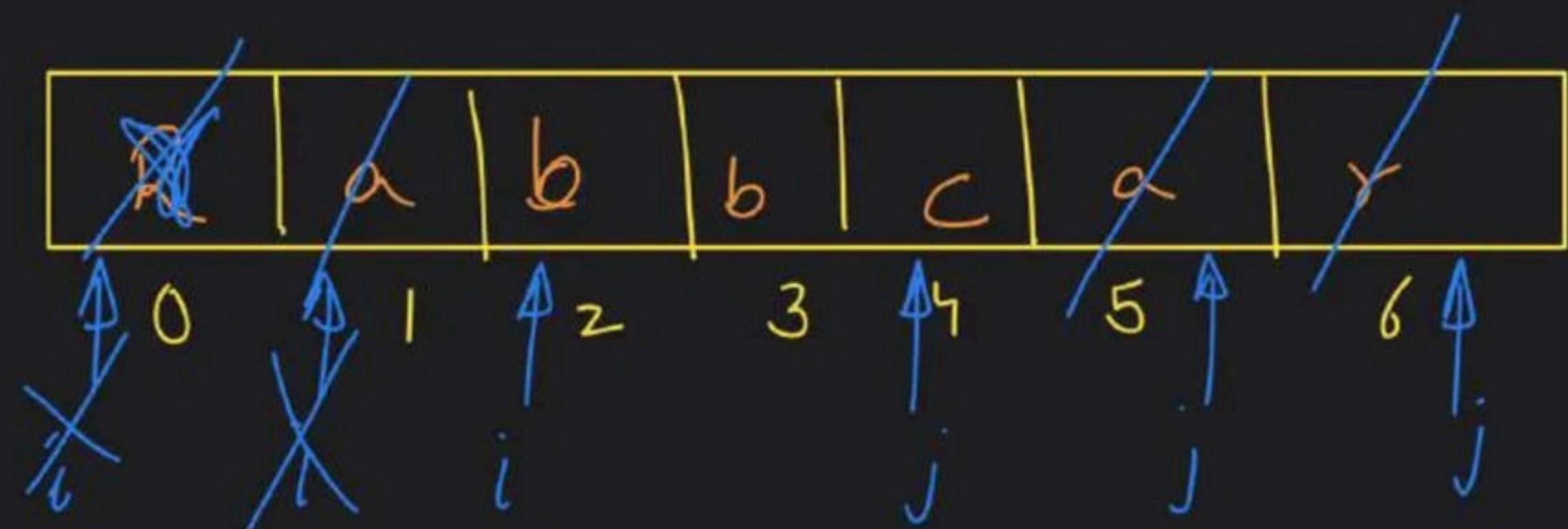
a z z y

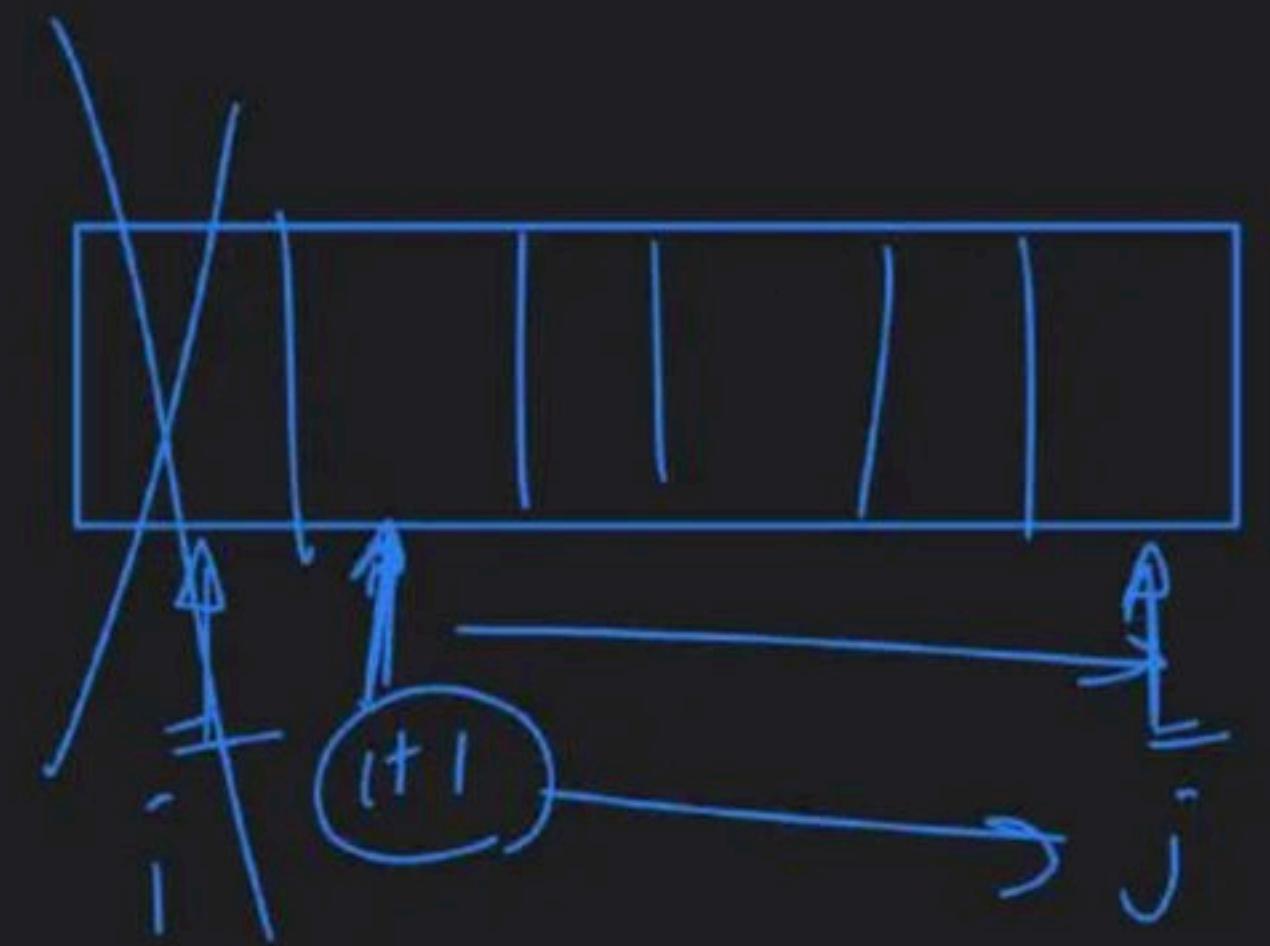
ay → is find
Ayy

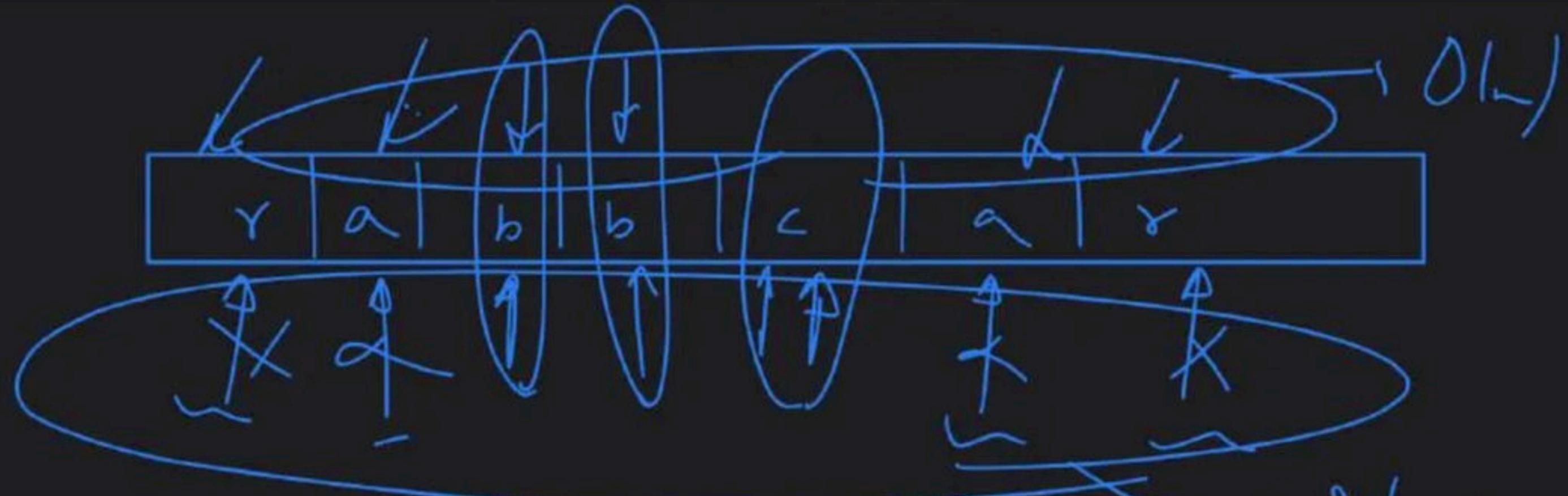
Castes









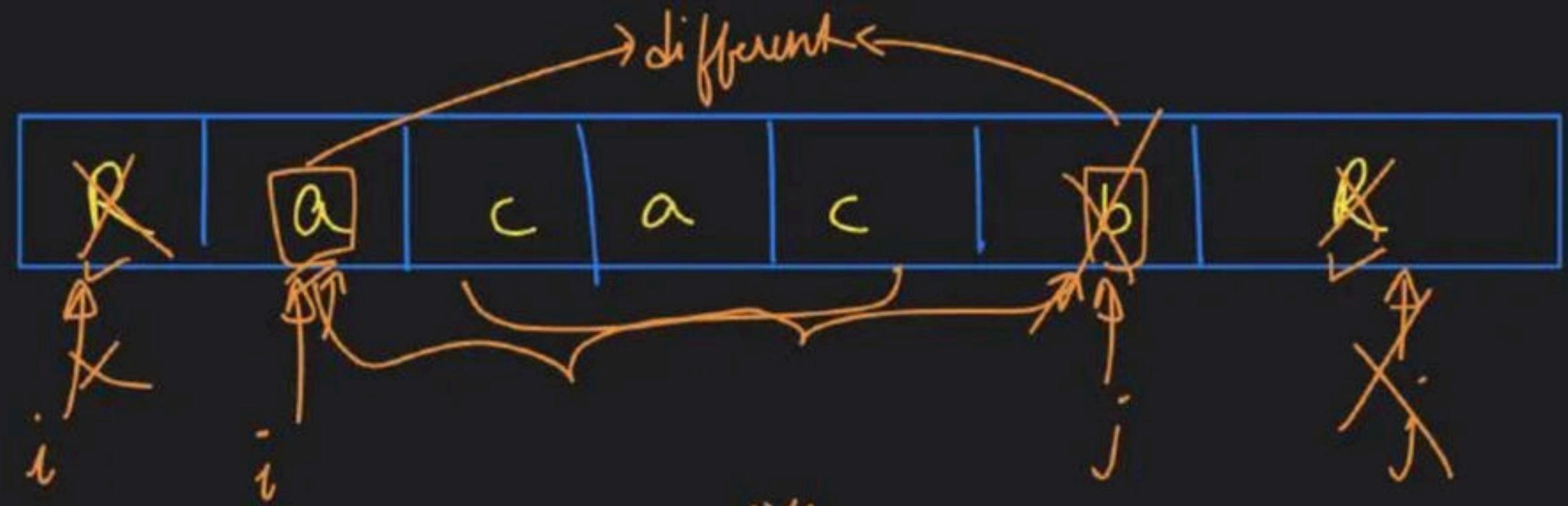


$b\ b$

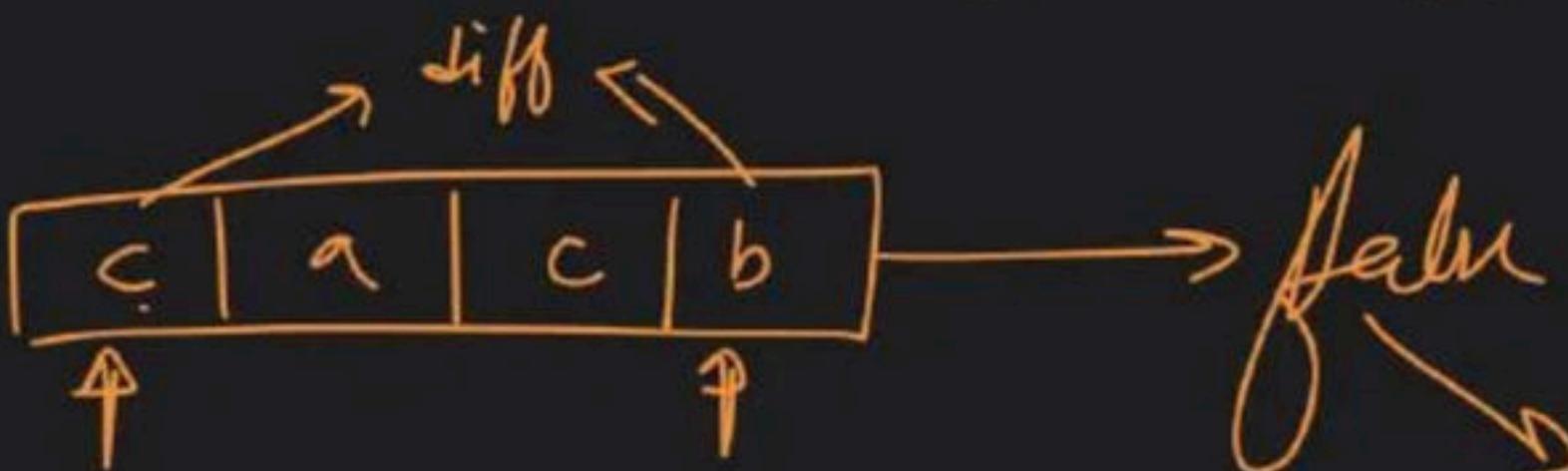
$b\ c$

ob_n

$- ob$

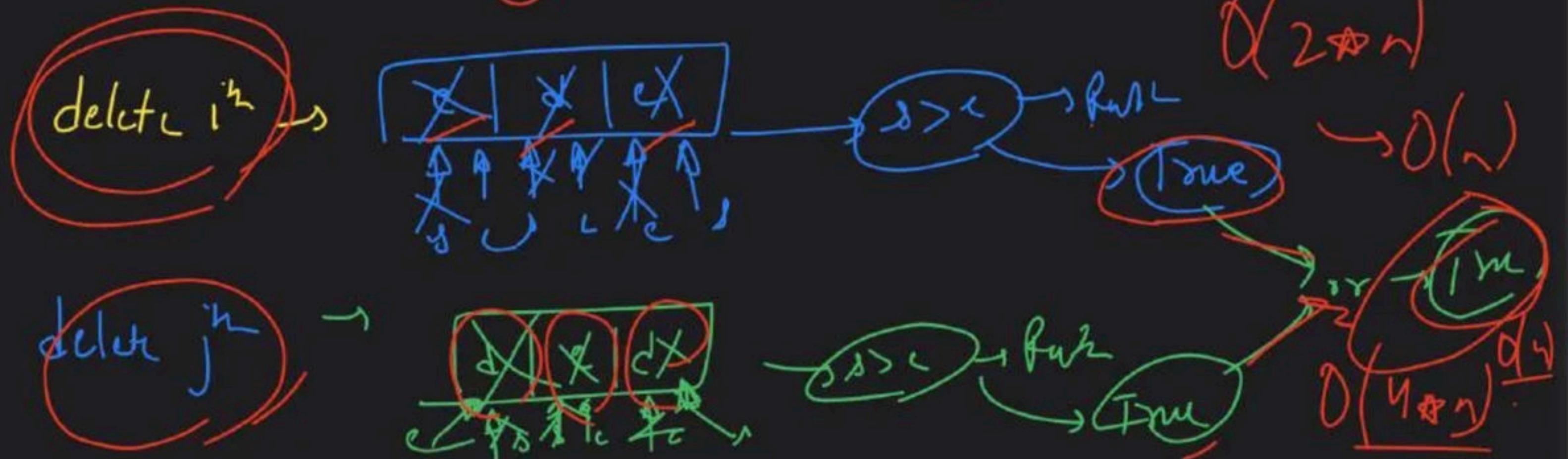
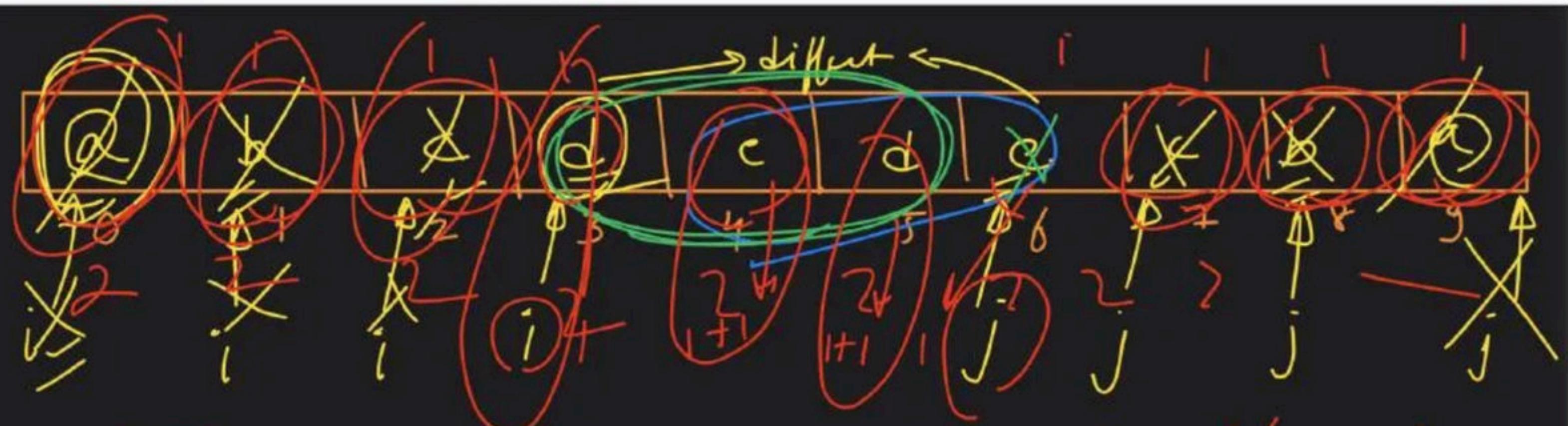


delete ith char ->



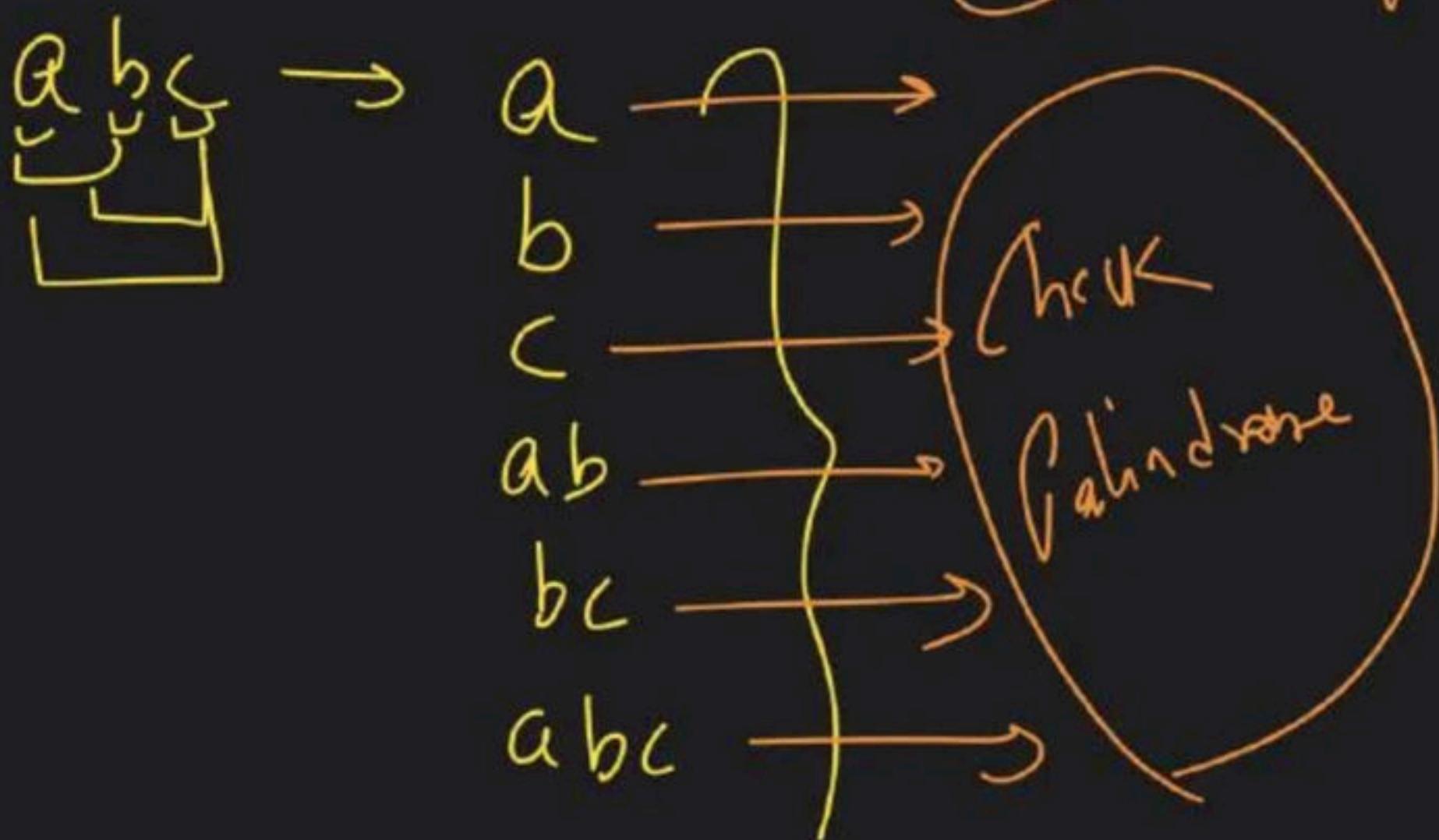
delete jth char ->





→ Palindromic Substring

3rd part for

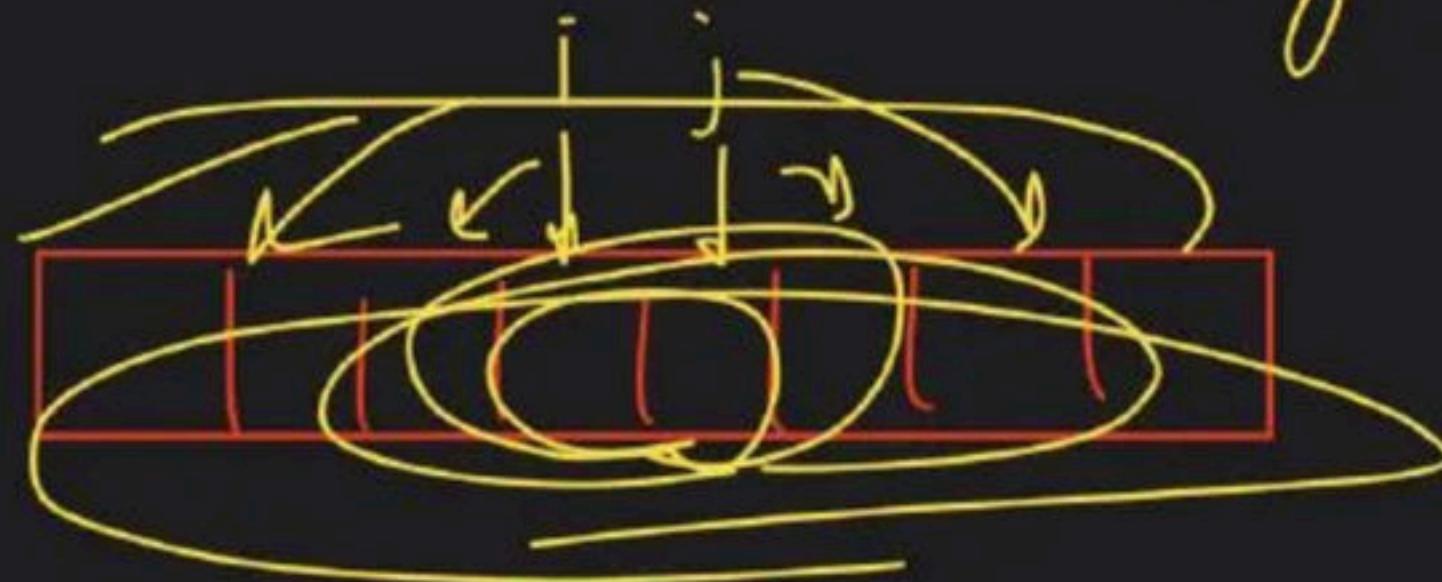


Palindrome

Odd

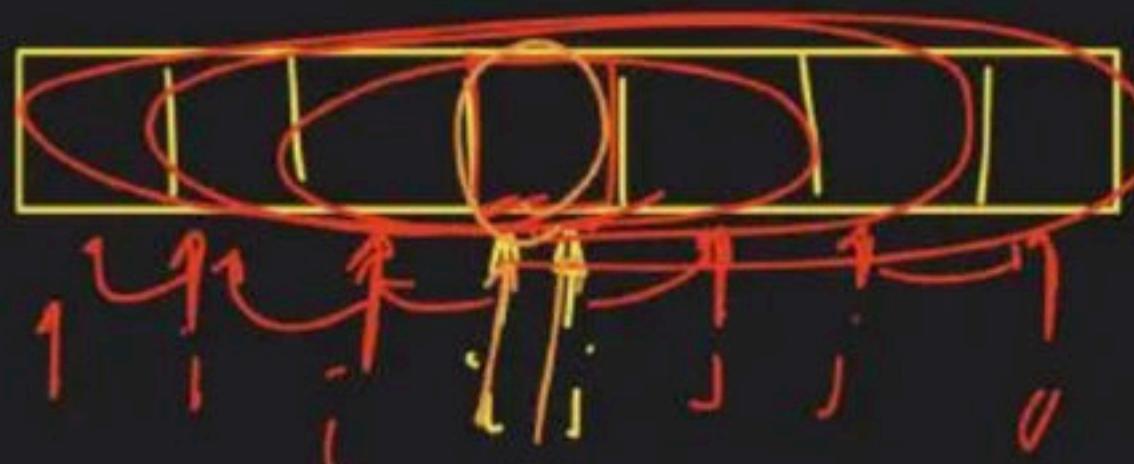
length

Even
- length



expand around

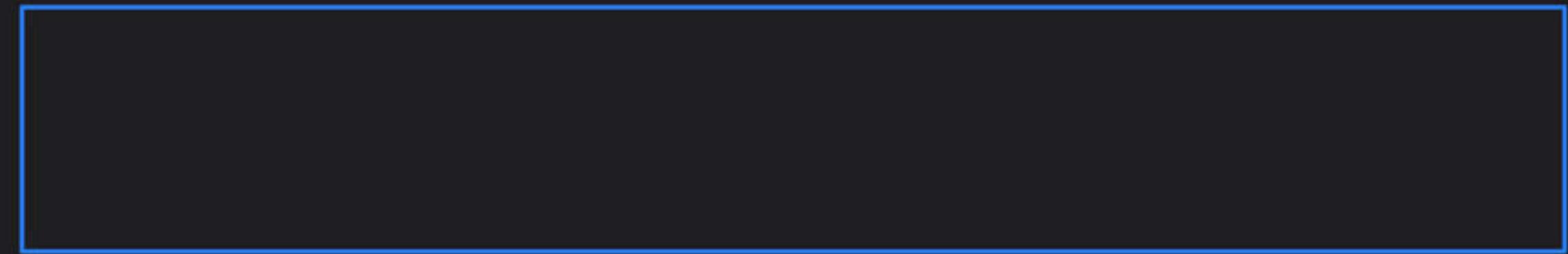
center



odd

B a }
B a b b
B a b b a
b b c
a b b a ✓

B	a	b	b	a	Y
---	---	---	---	---	---



(M)

→ final all substrings

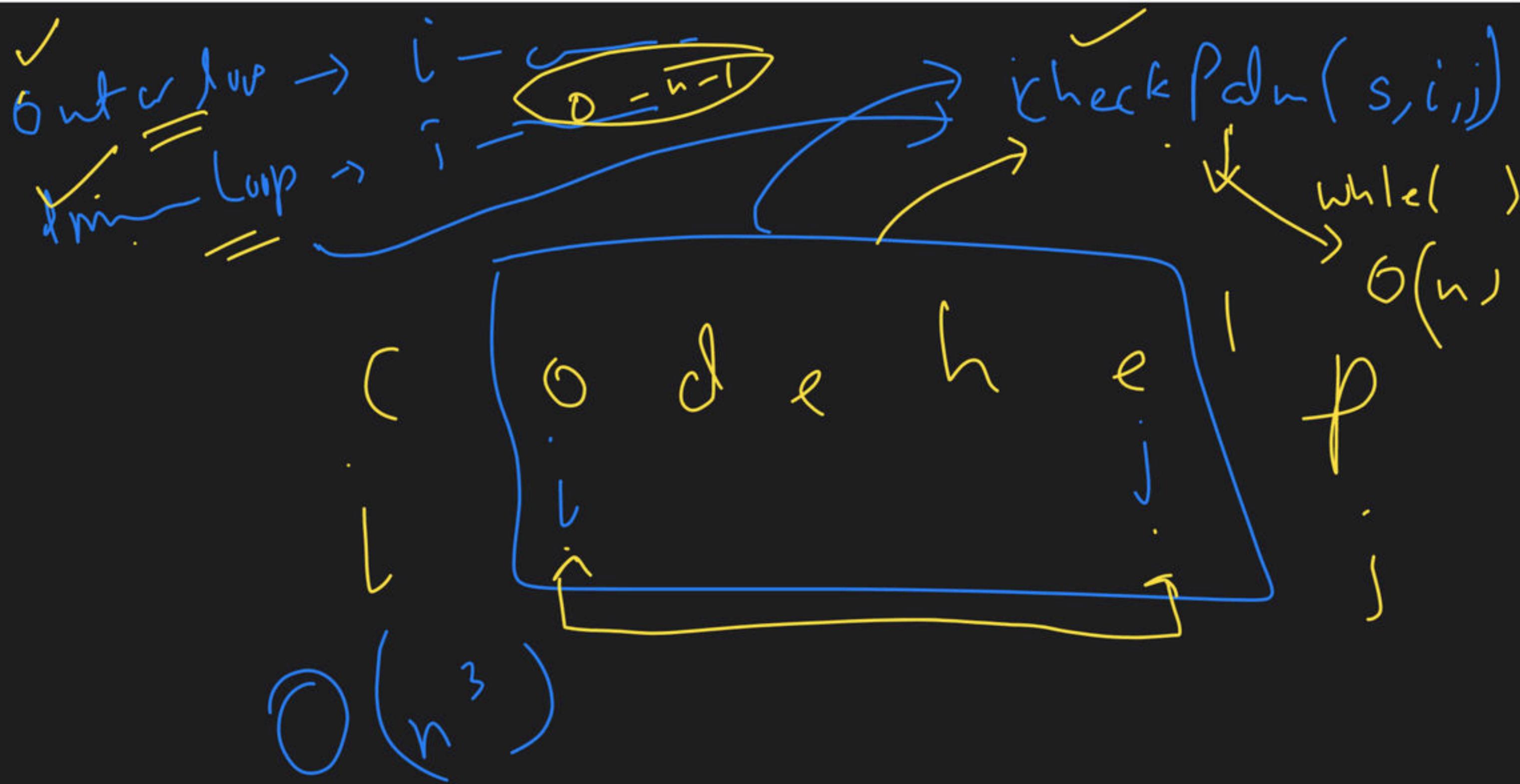
hw / print

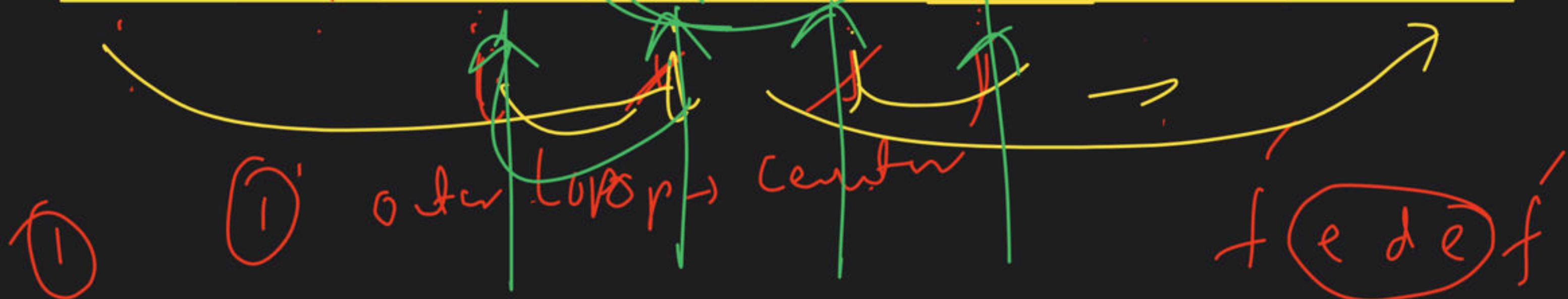
all substrings

c o d e h e l p
i

for ($i = 0 \rightarrow n-1$)

for ($j = 0 \rightarrow n-1$)





hor index < 0 center Banao \rightarrow for($cent = 0 \ll$

①



Outer loop over string for center



①

odd str

②

even str

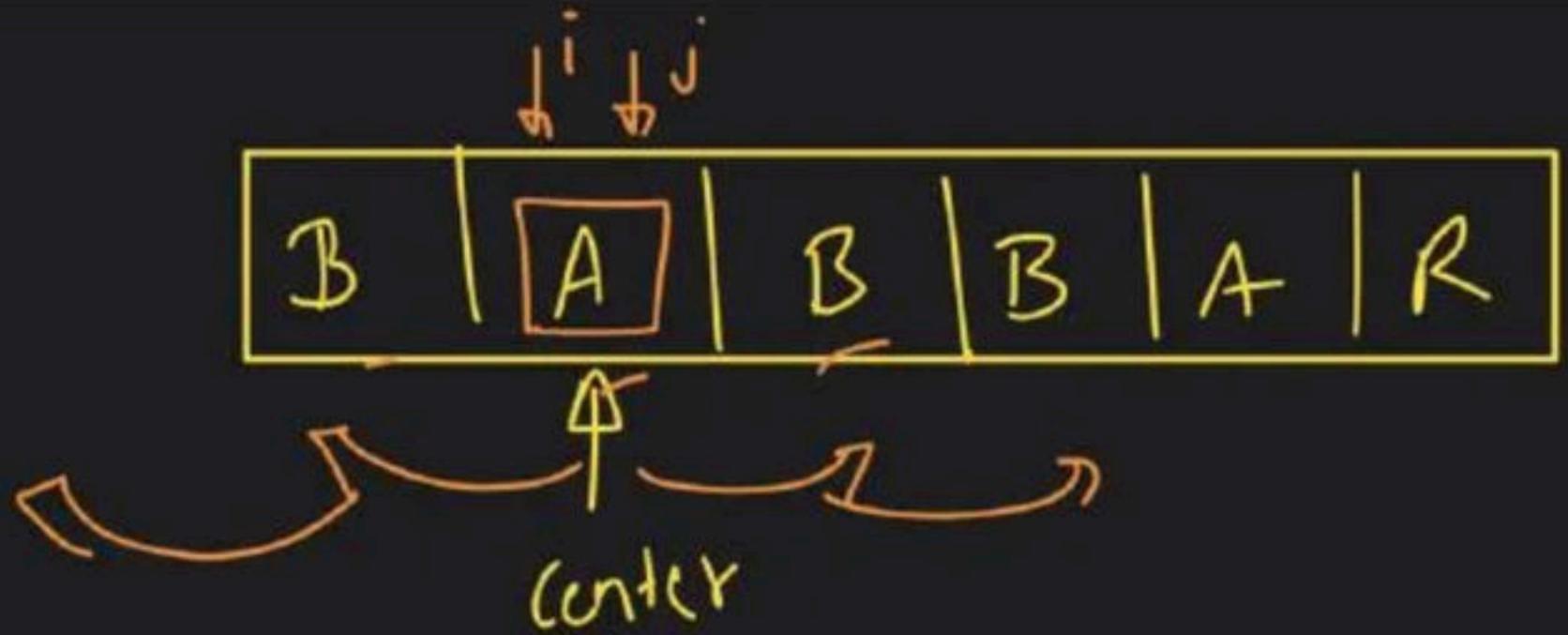
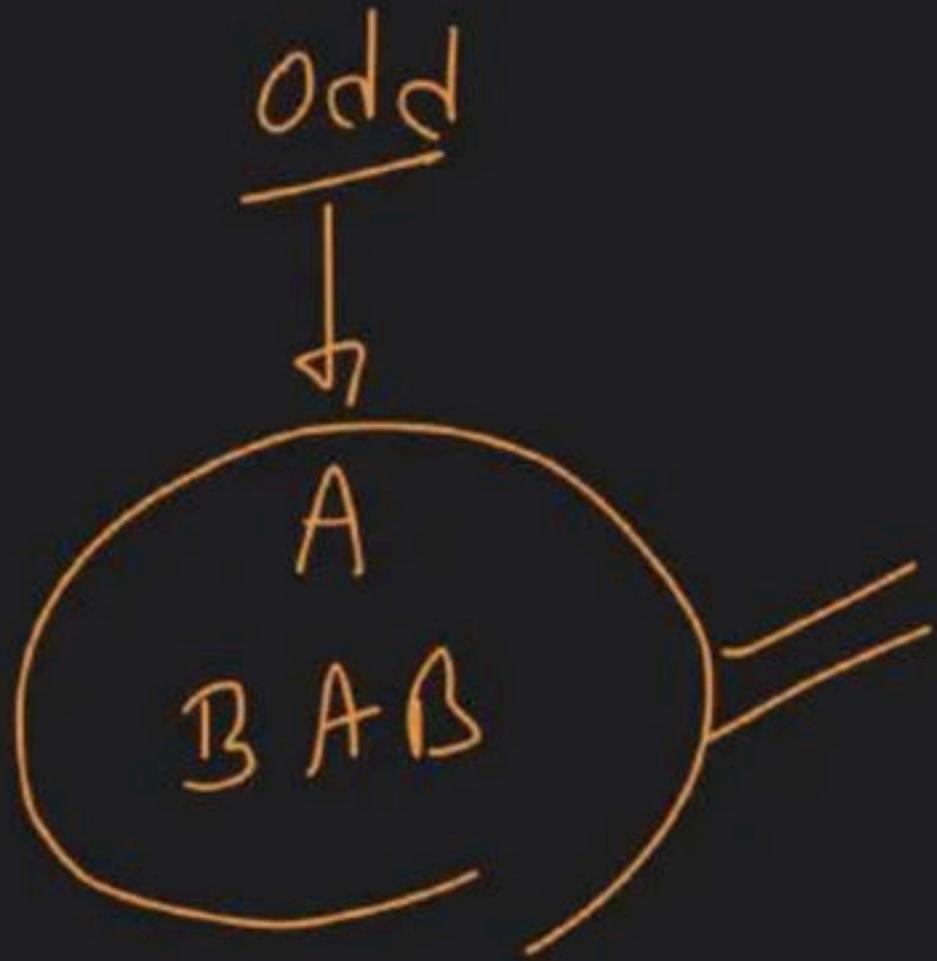
O(n)

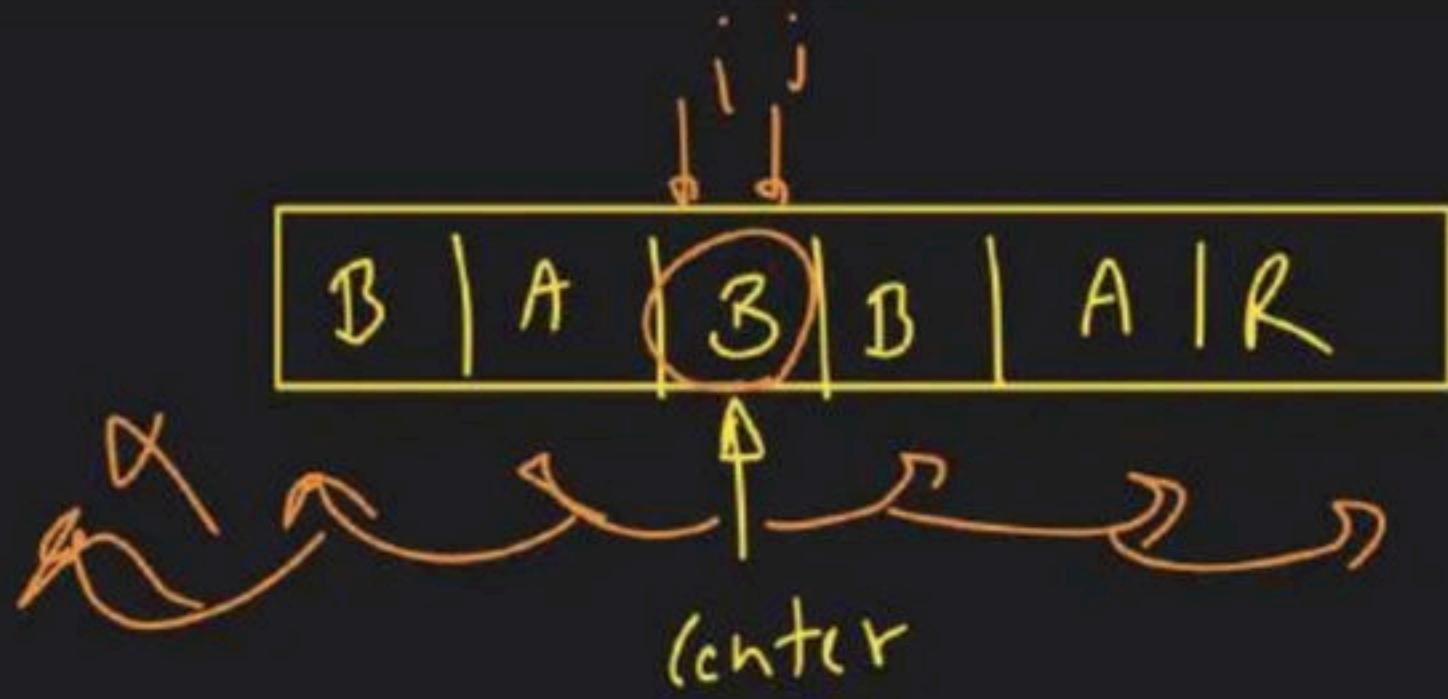
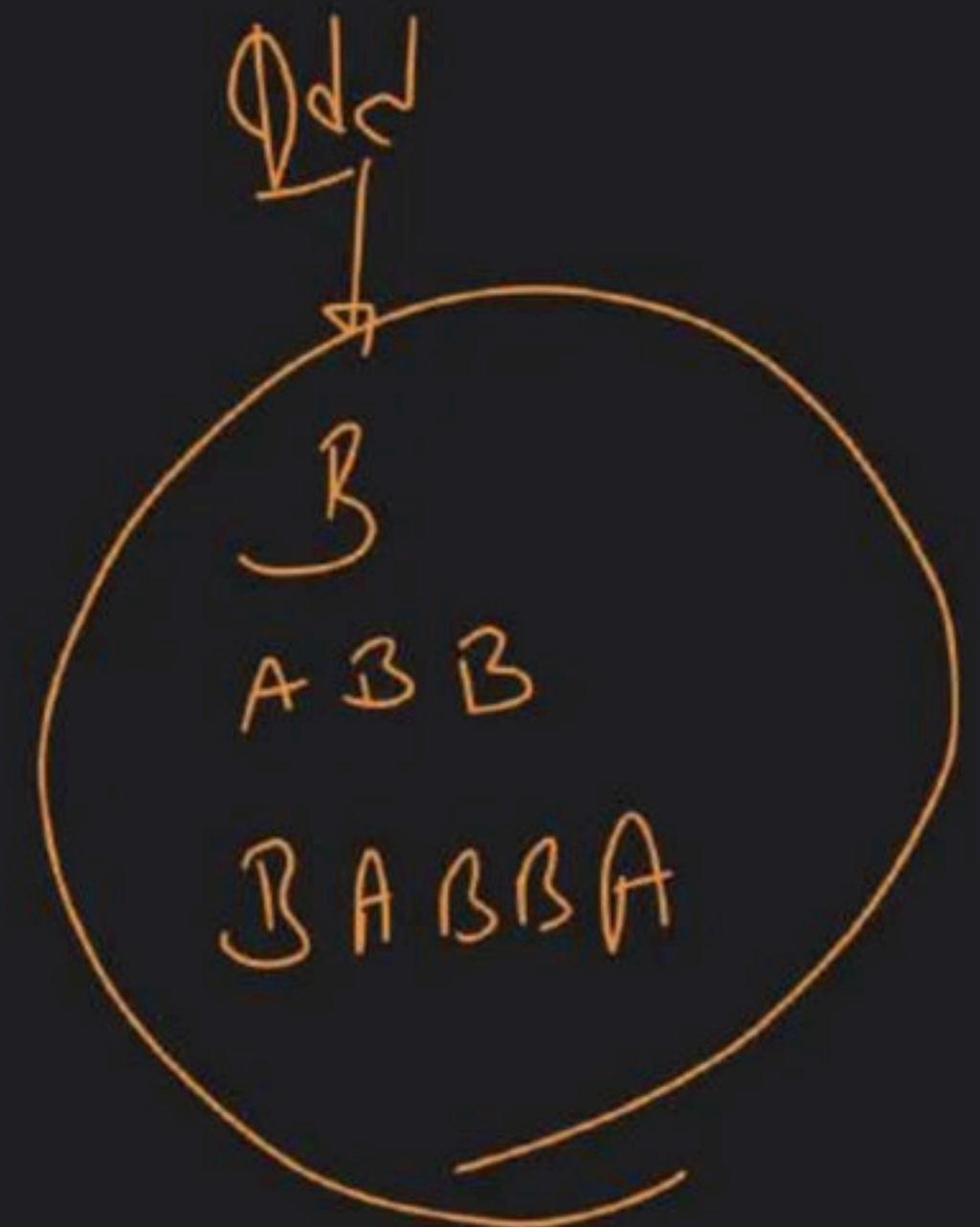
O(n)

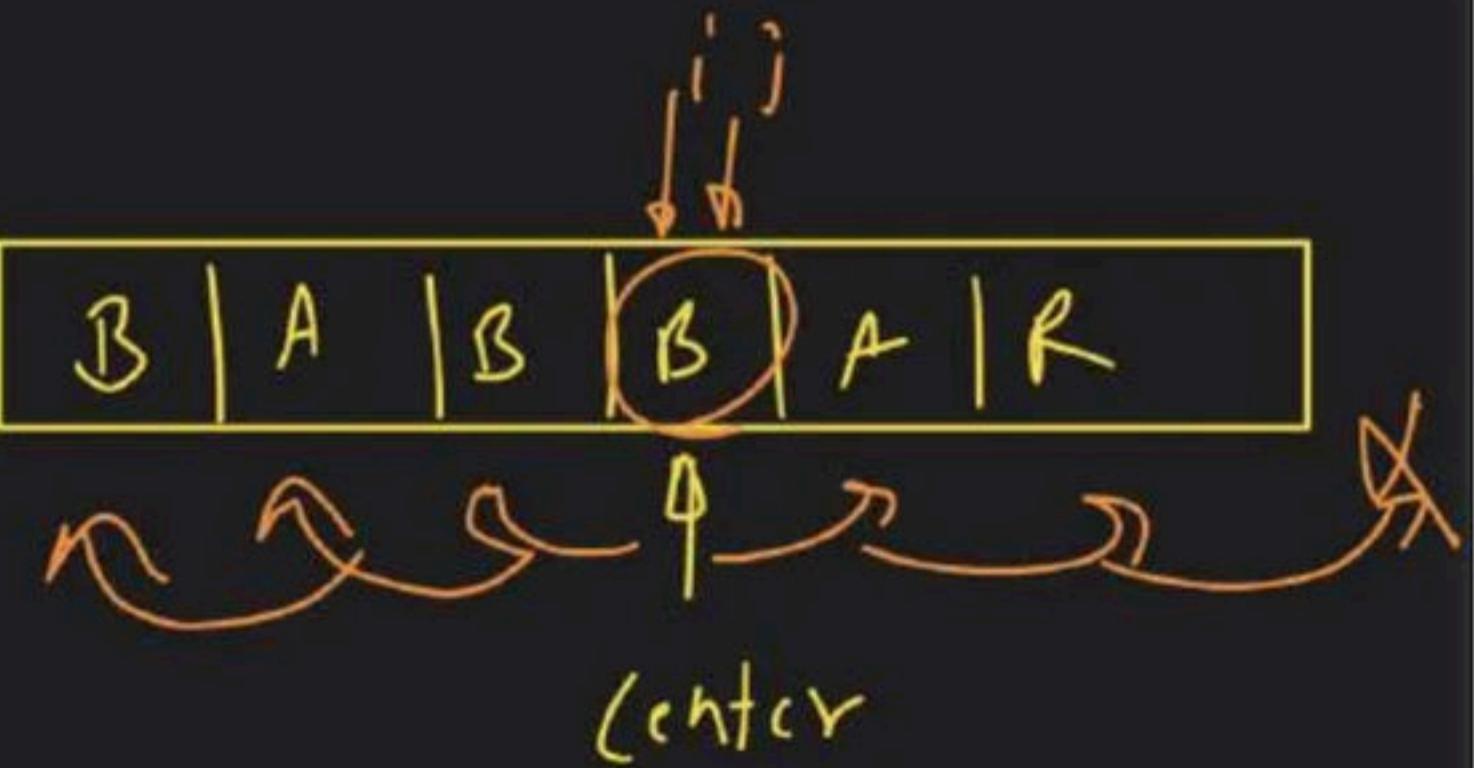
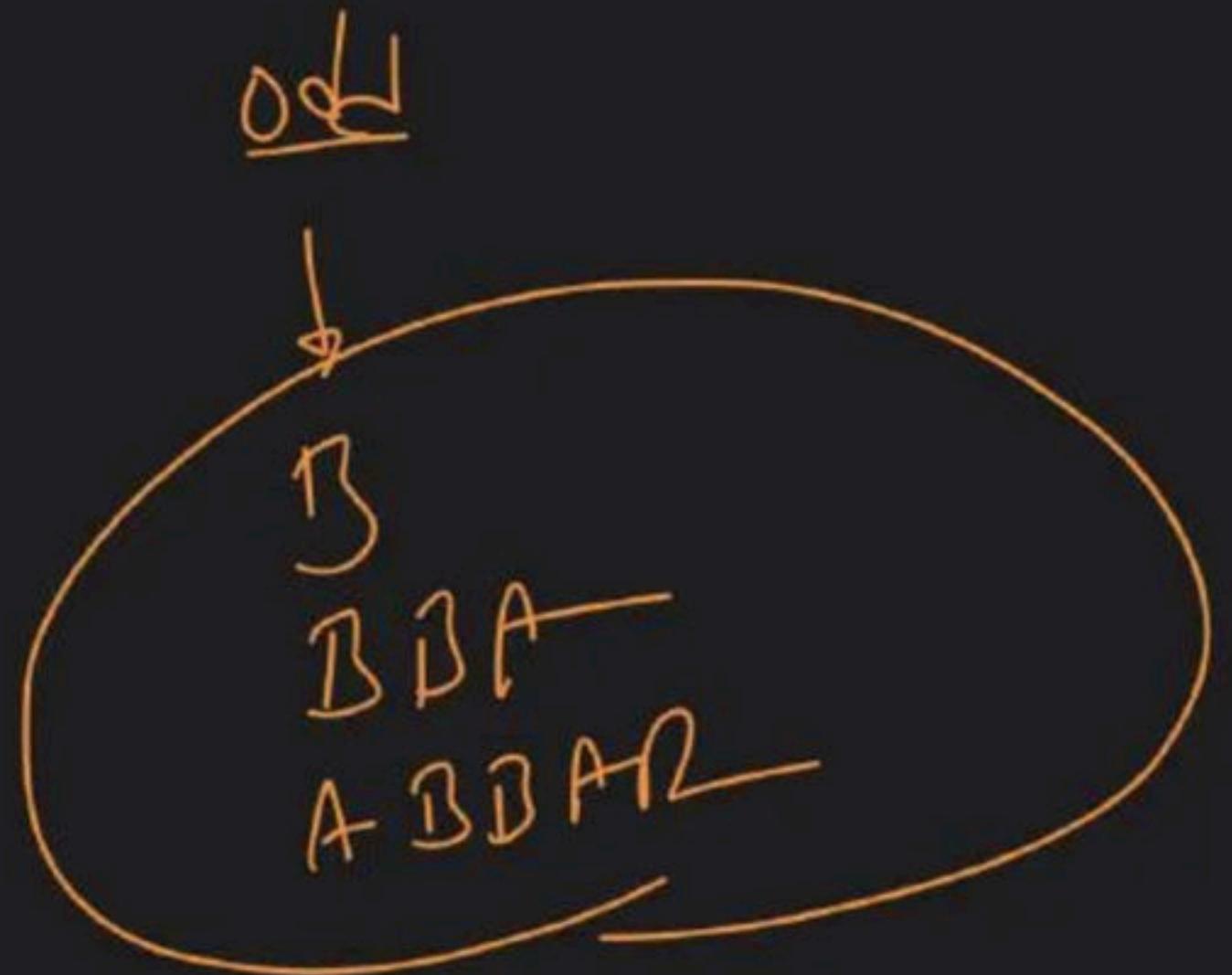


$O(n^2)$

a s d s a v b a b
l k j
x

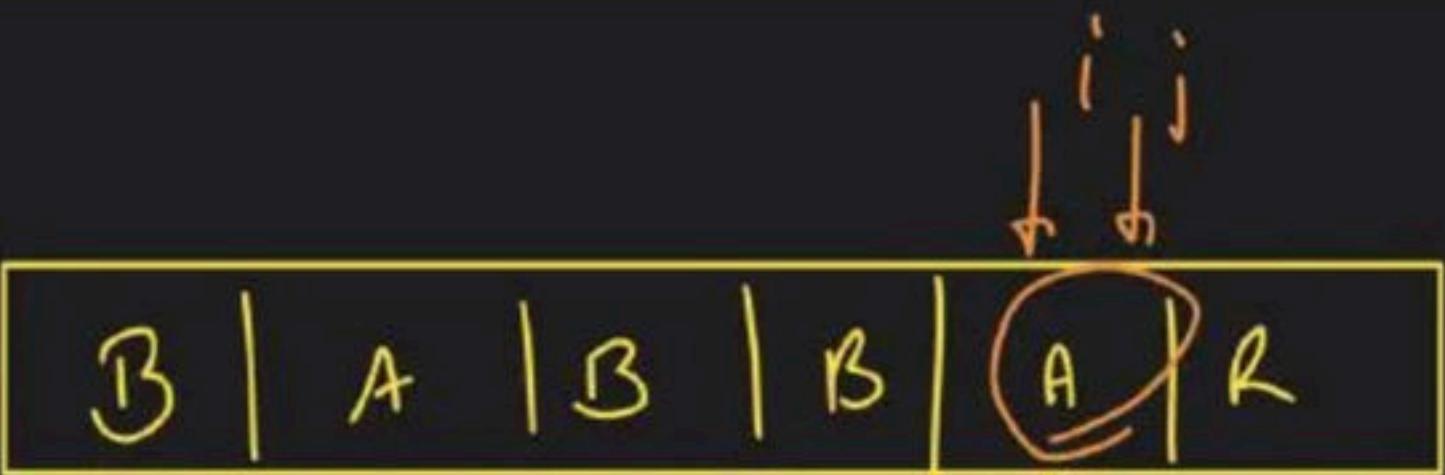
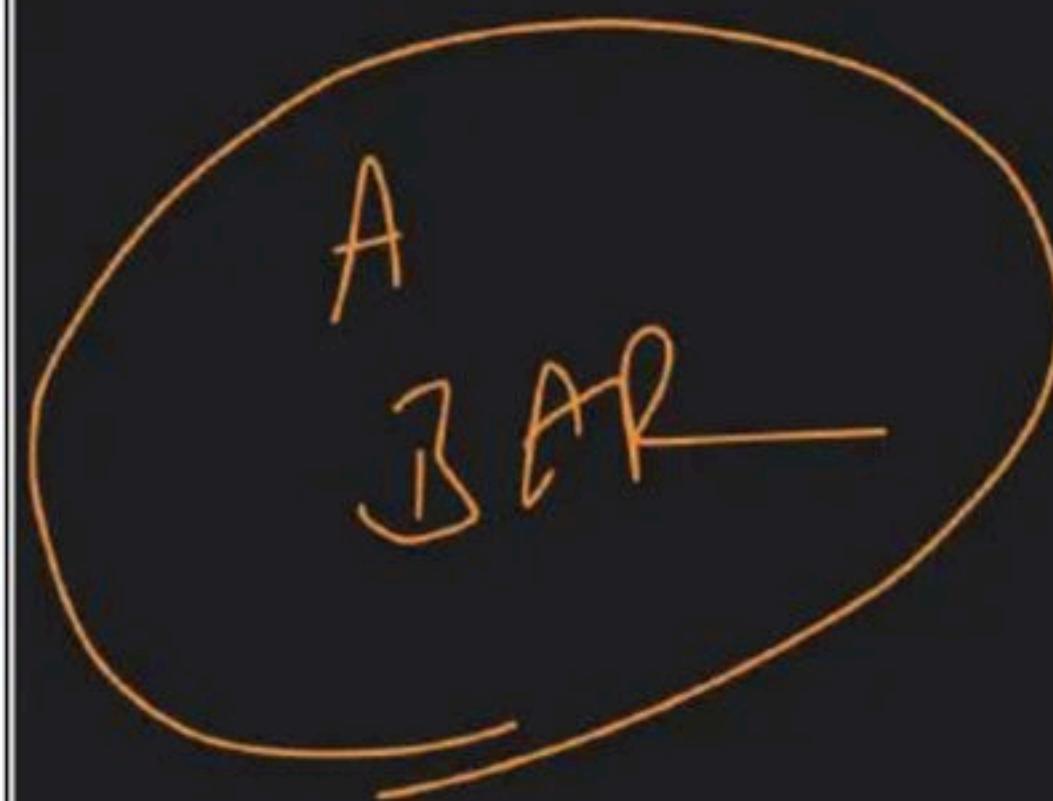


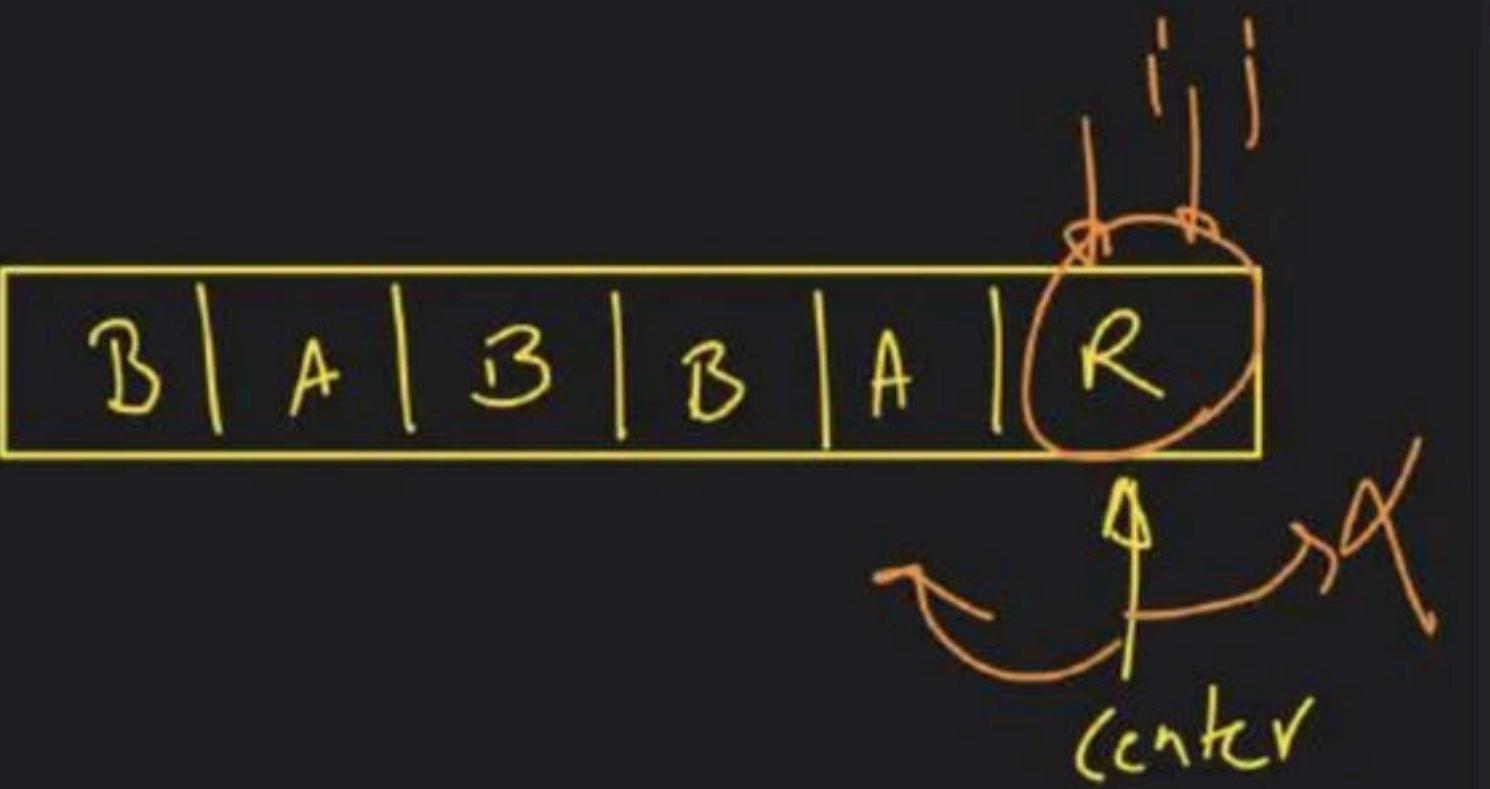






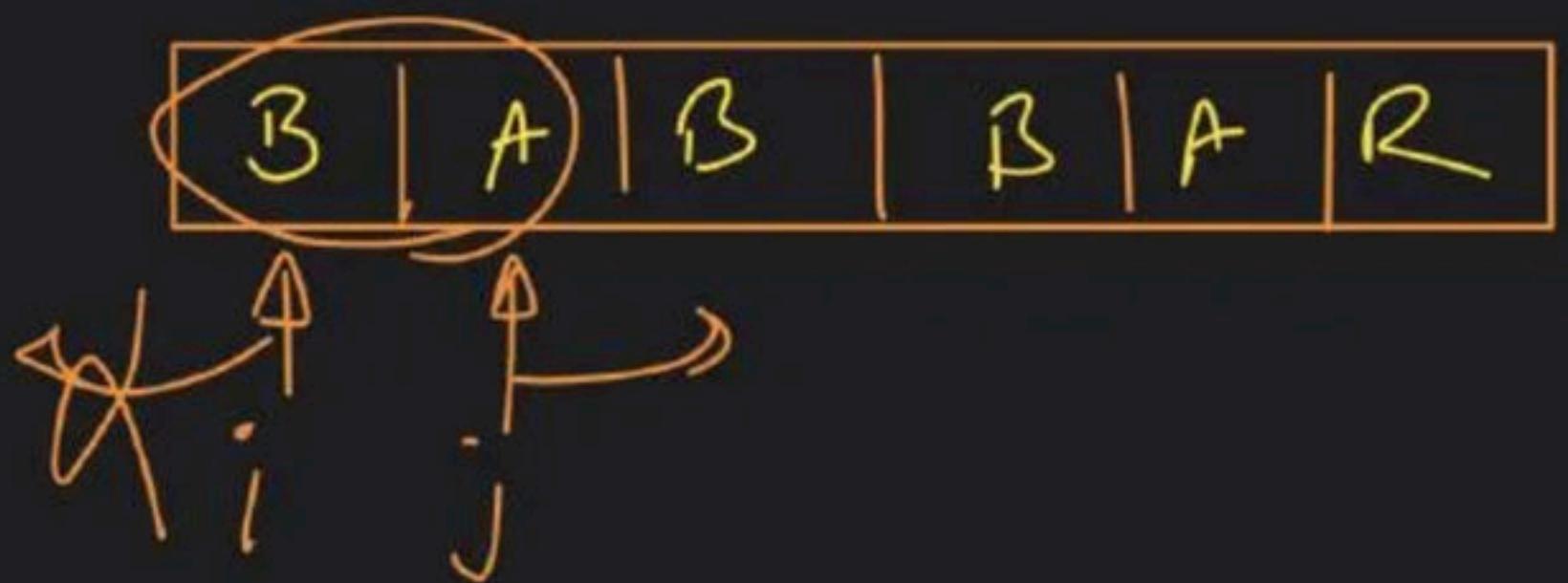
vold





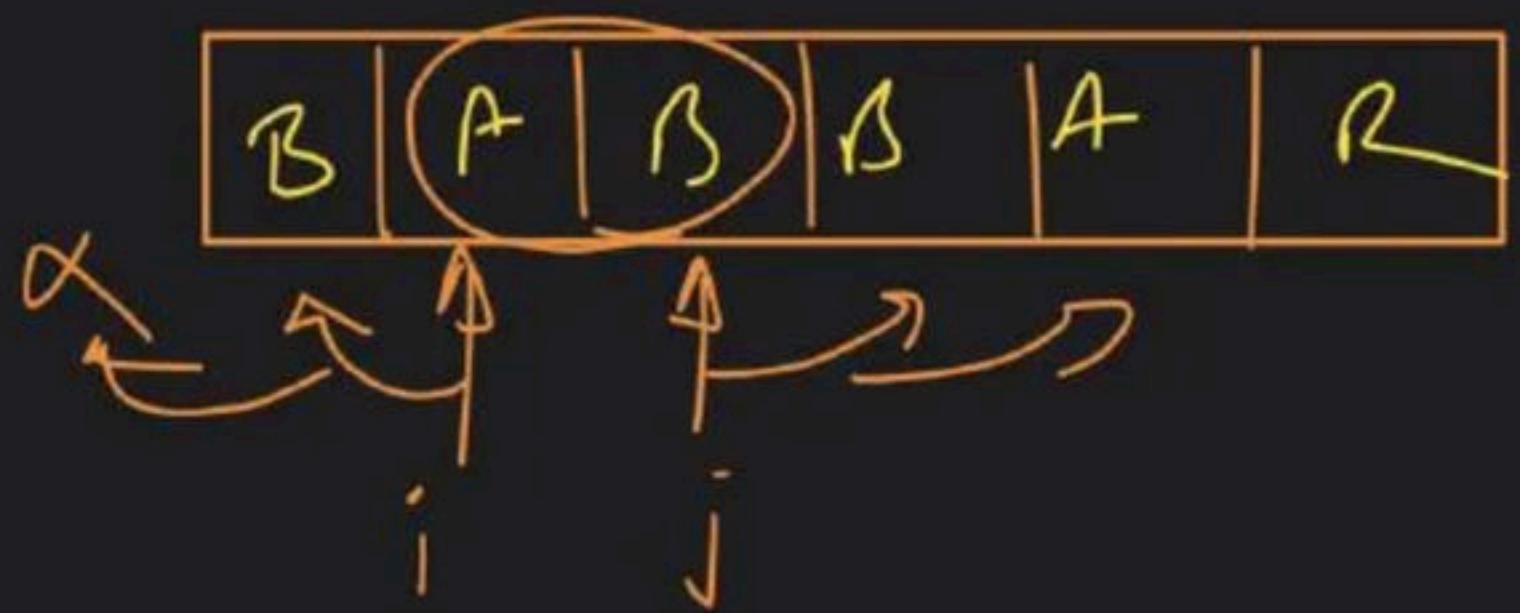
Even

BA

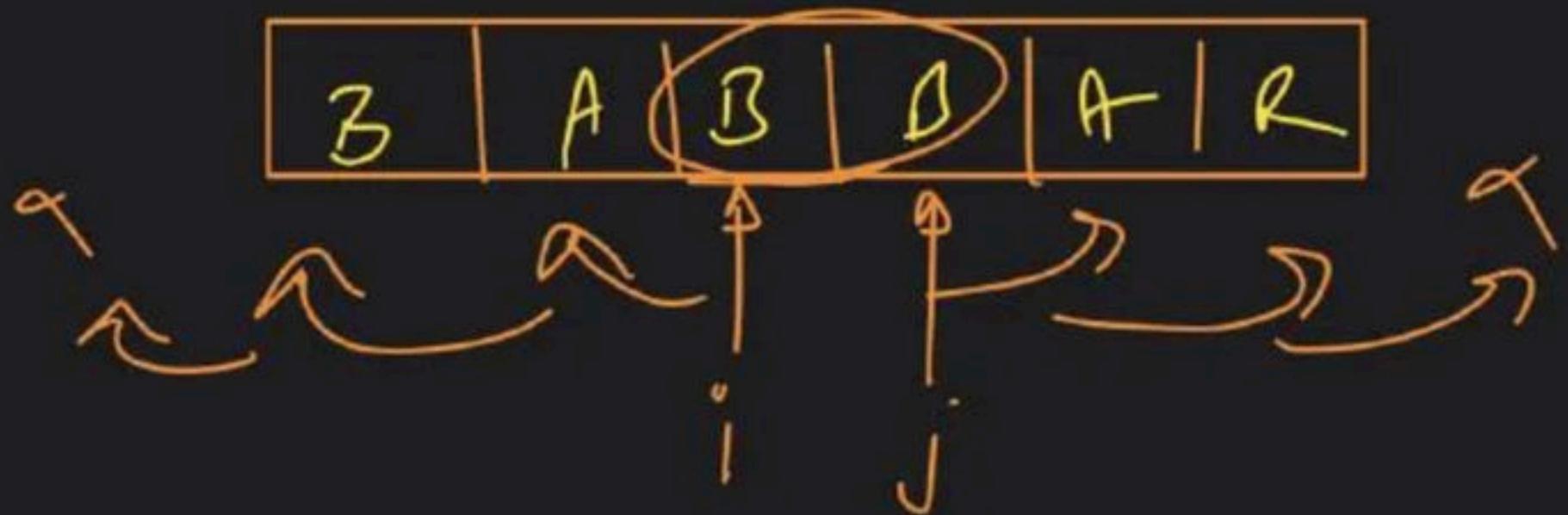


$A\beta$

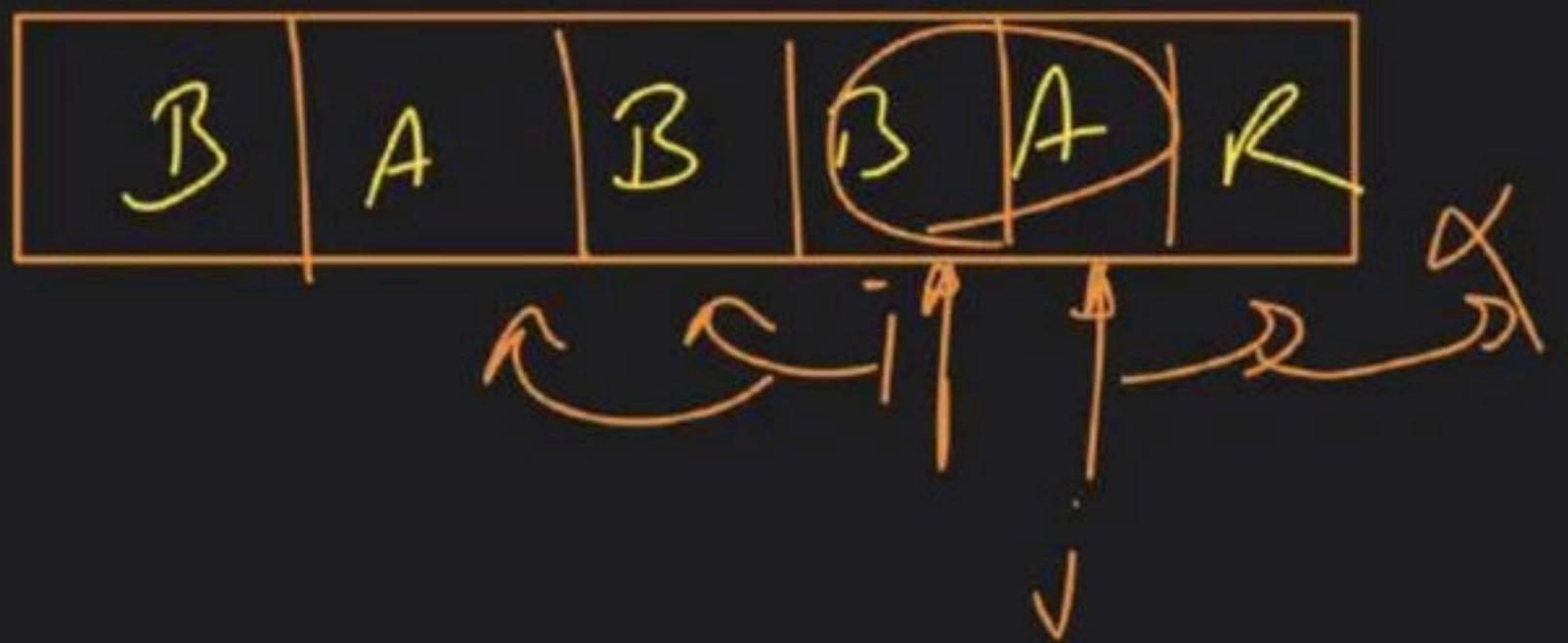
$\beta A \beta \beta$

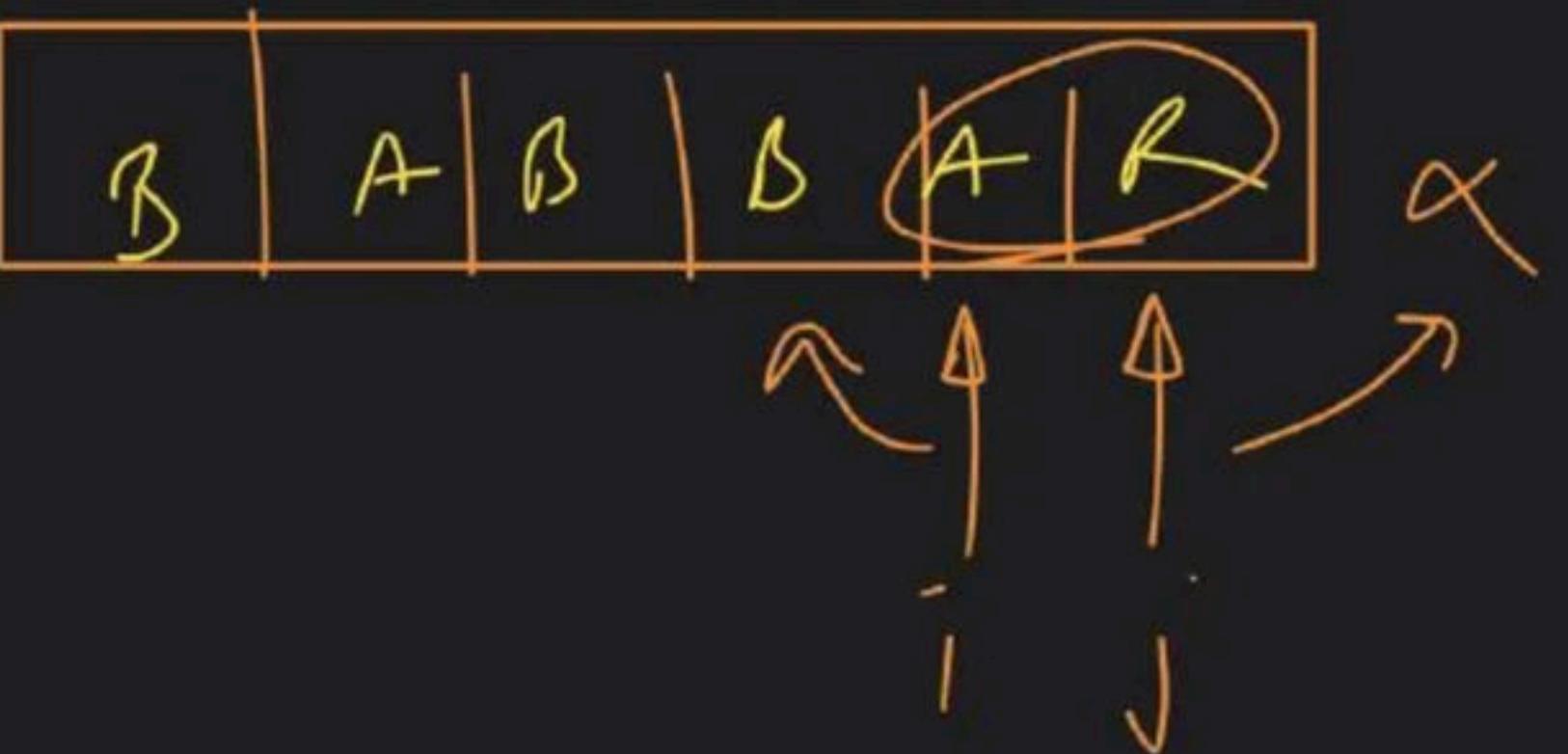


B B
A B B A
BABBAR

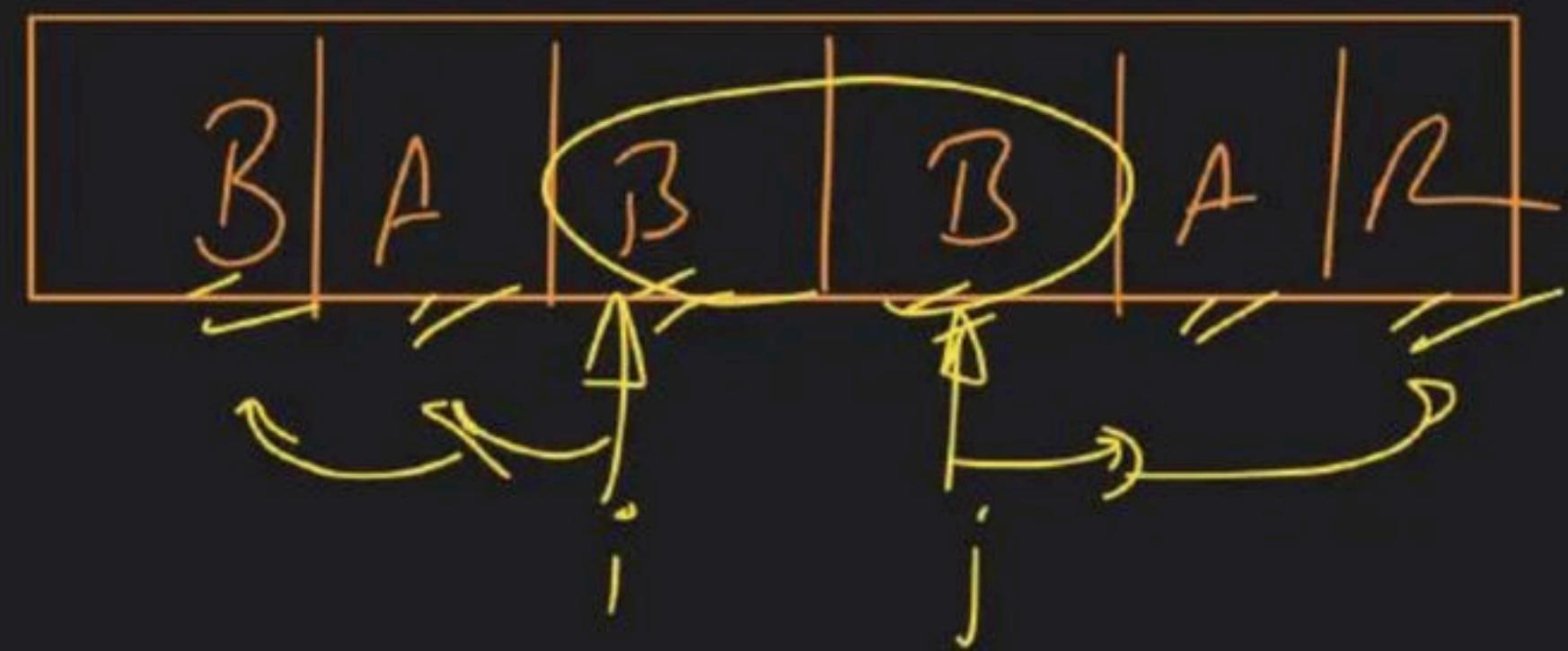


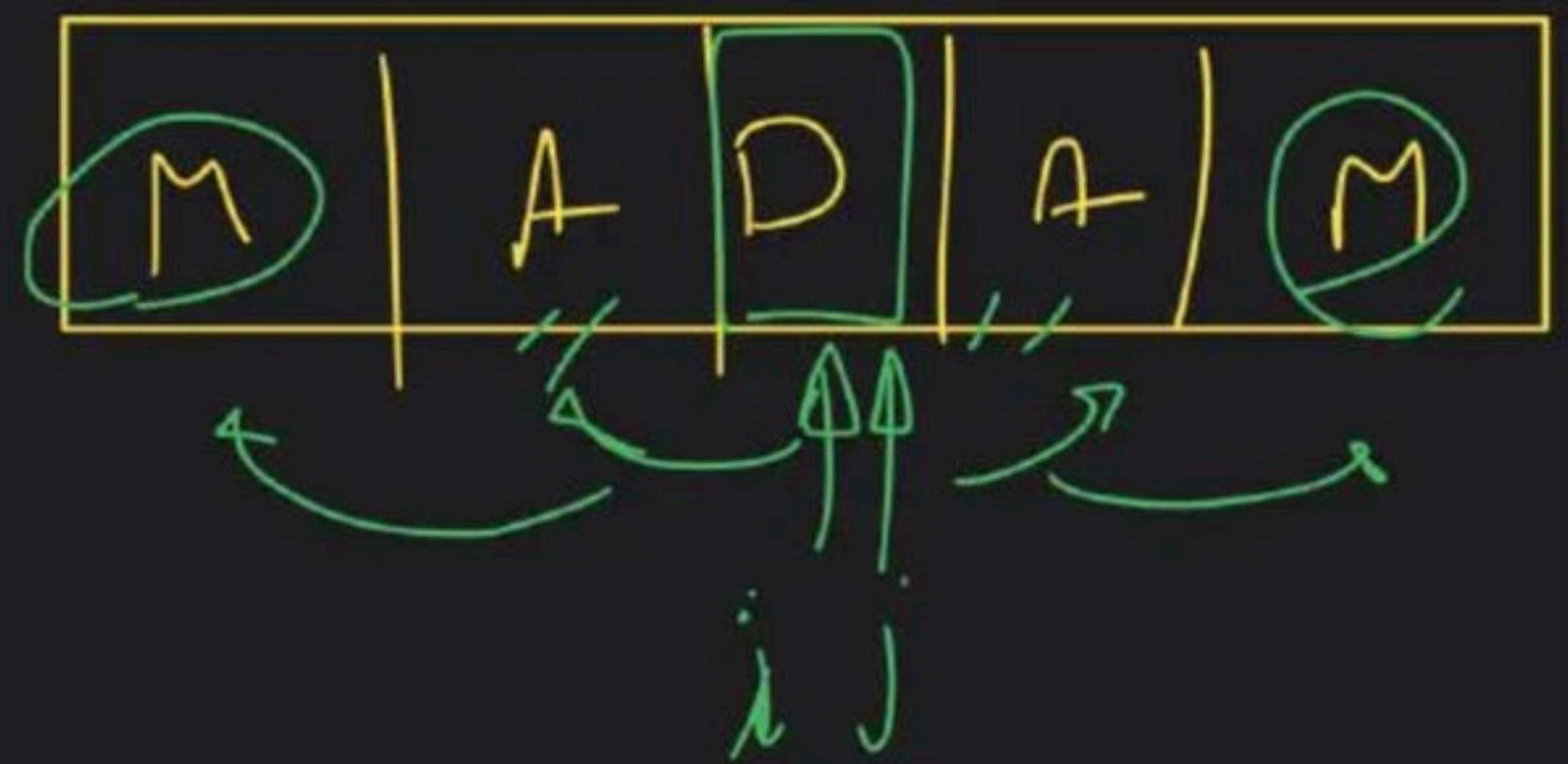
B A
BBAR

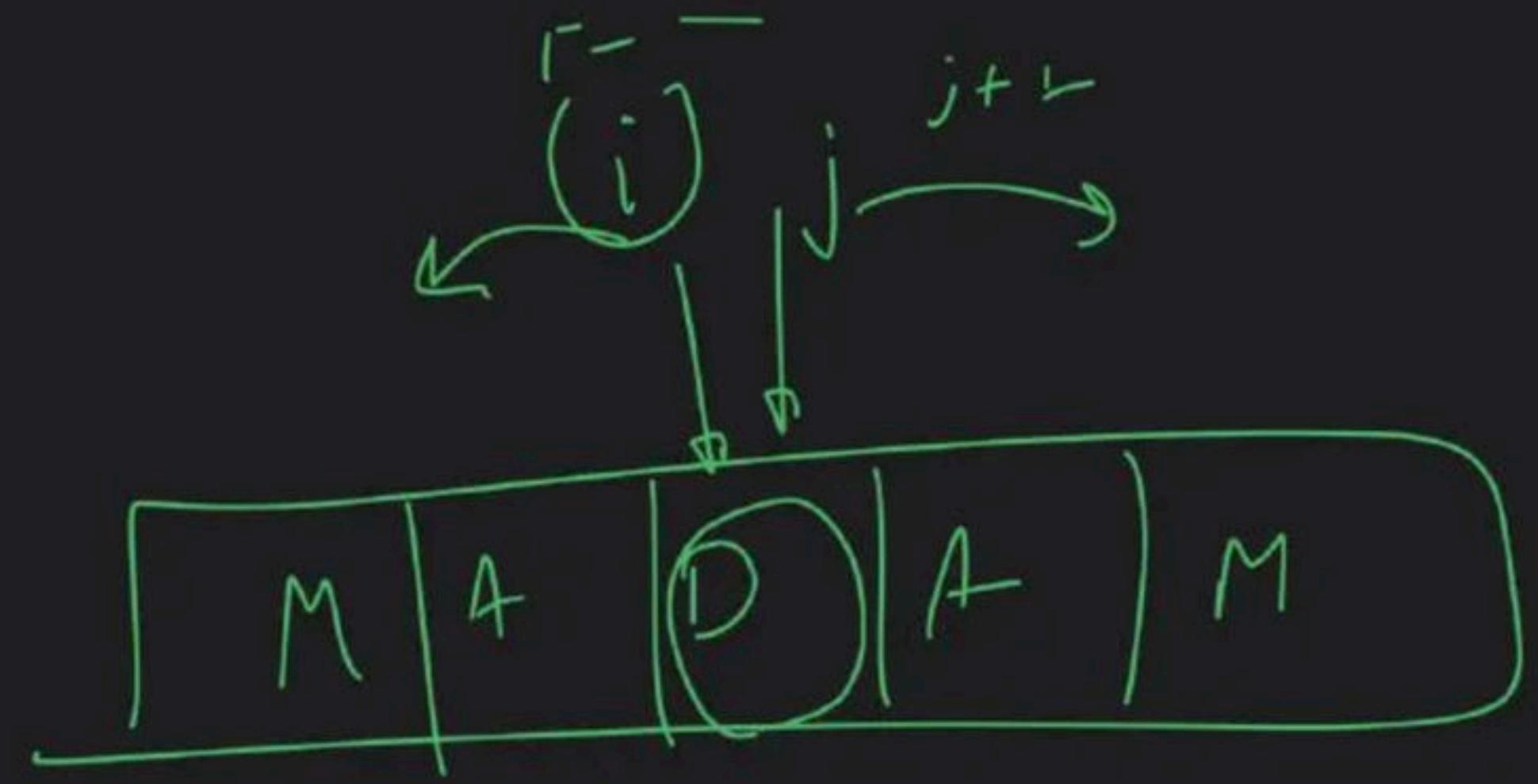


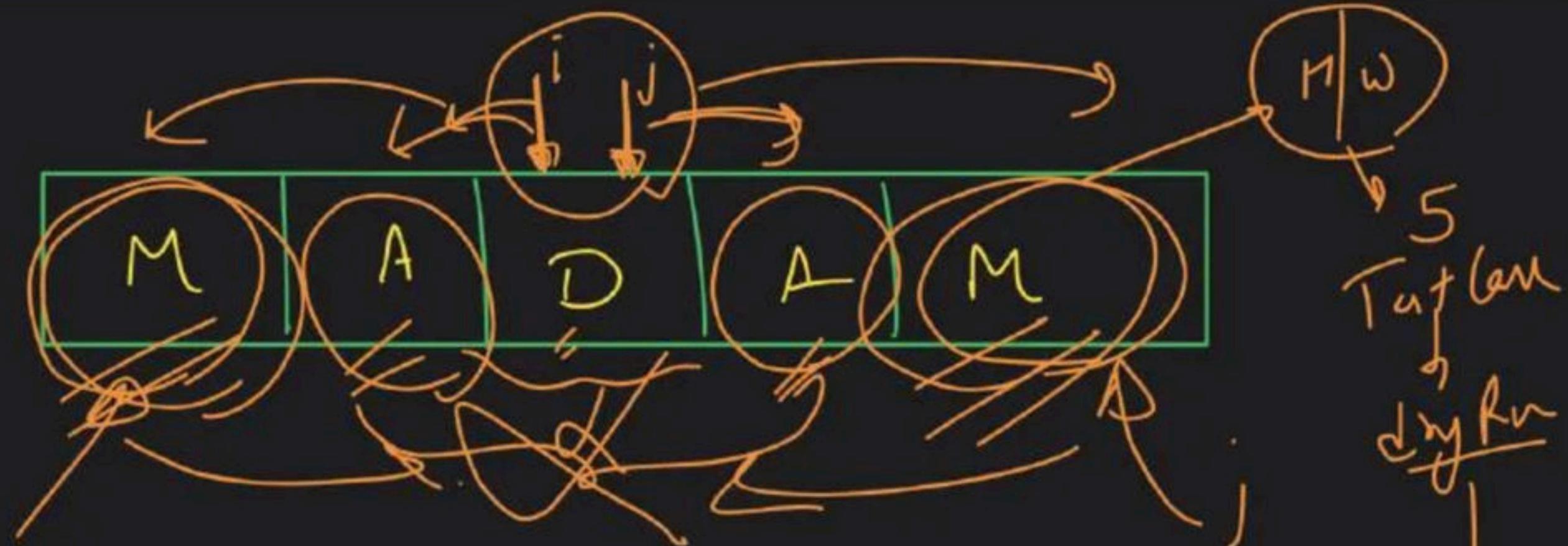


AB



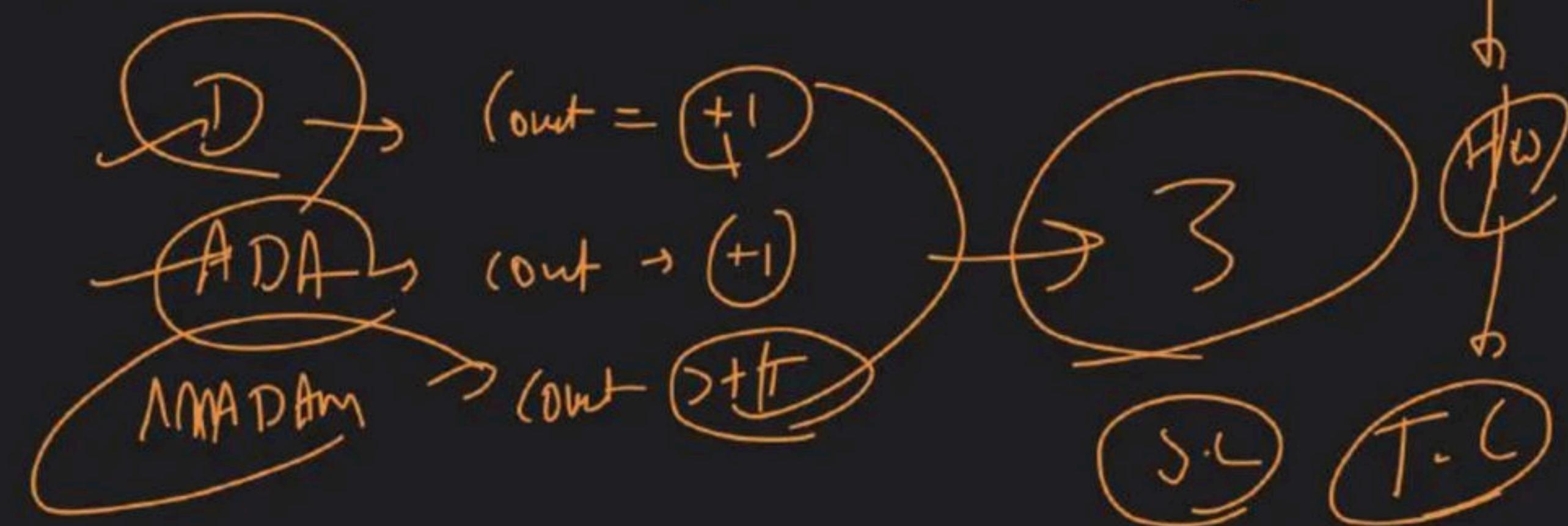






5
Tuglak

dry run





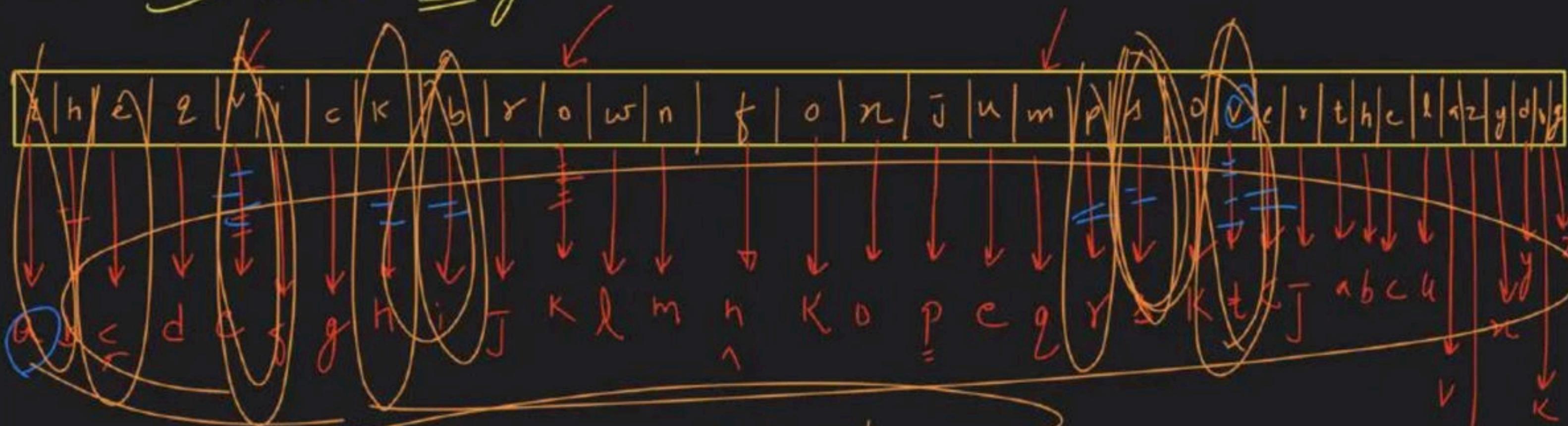
Char Arrays & Strings - Class 3

Special class

June →

→ Pointer
Rec
BT & DL

→ Decode Message



this - is - a - secret

map →

"this - is - a - secret"

"this - is - a - secret"

① create mapping

② use map to decode message

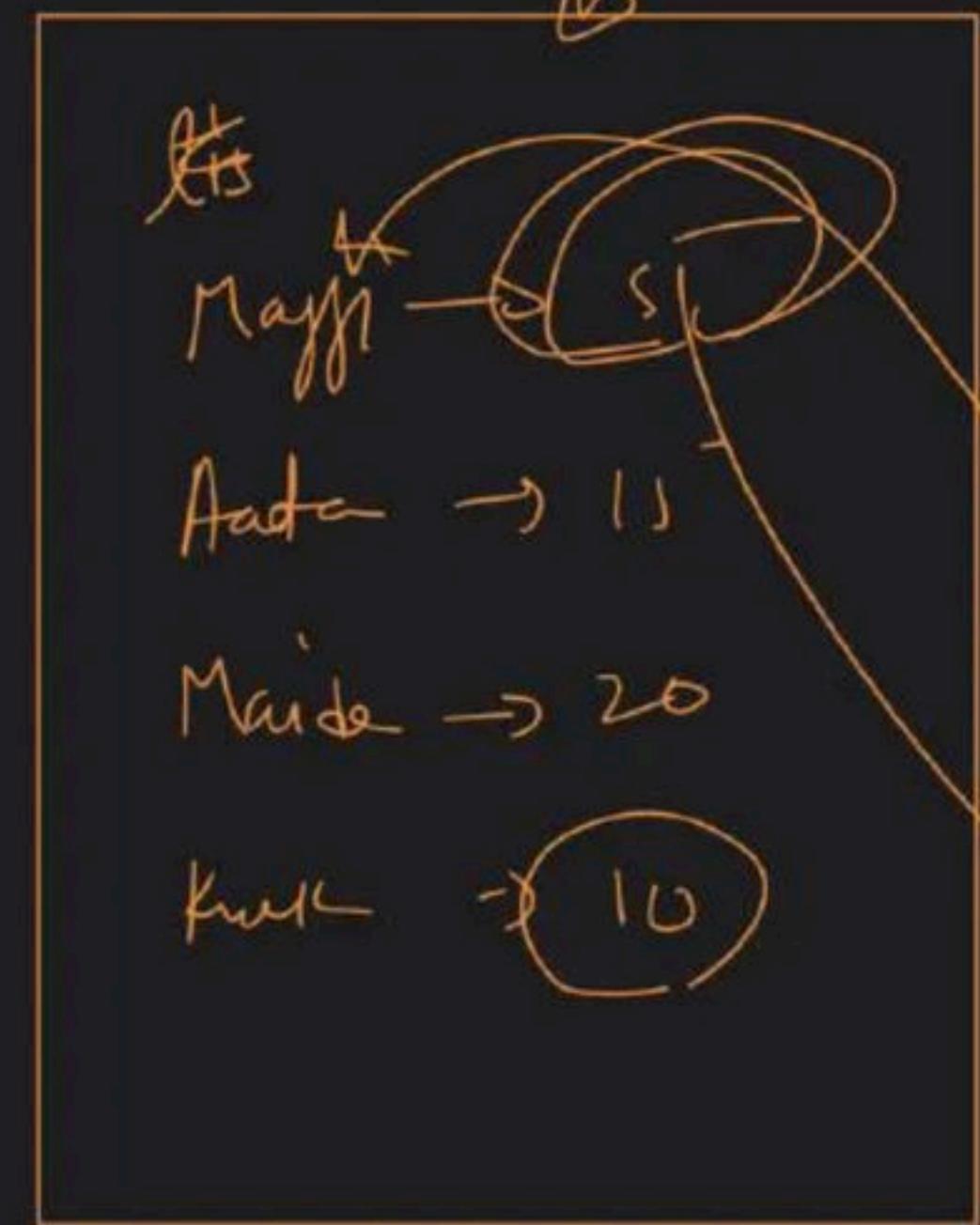
Key character

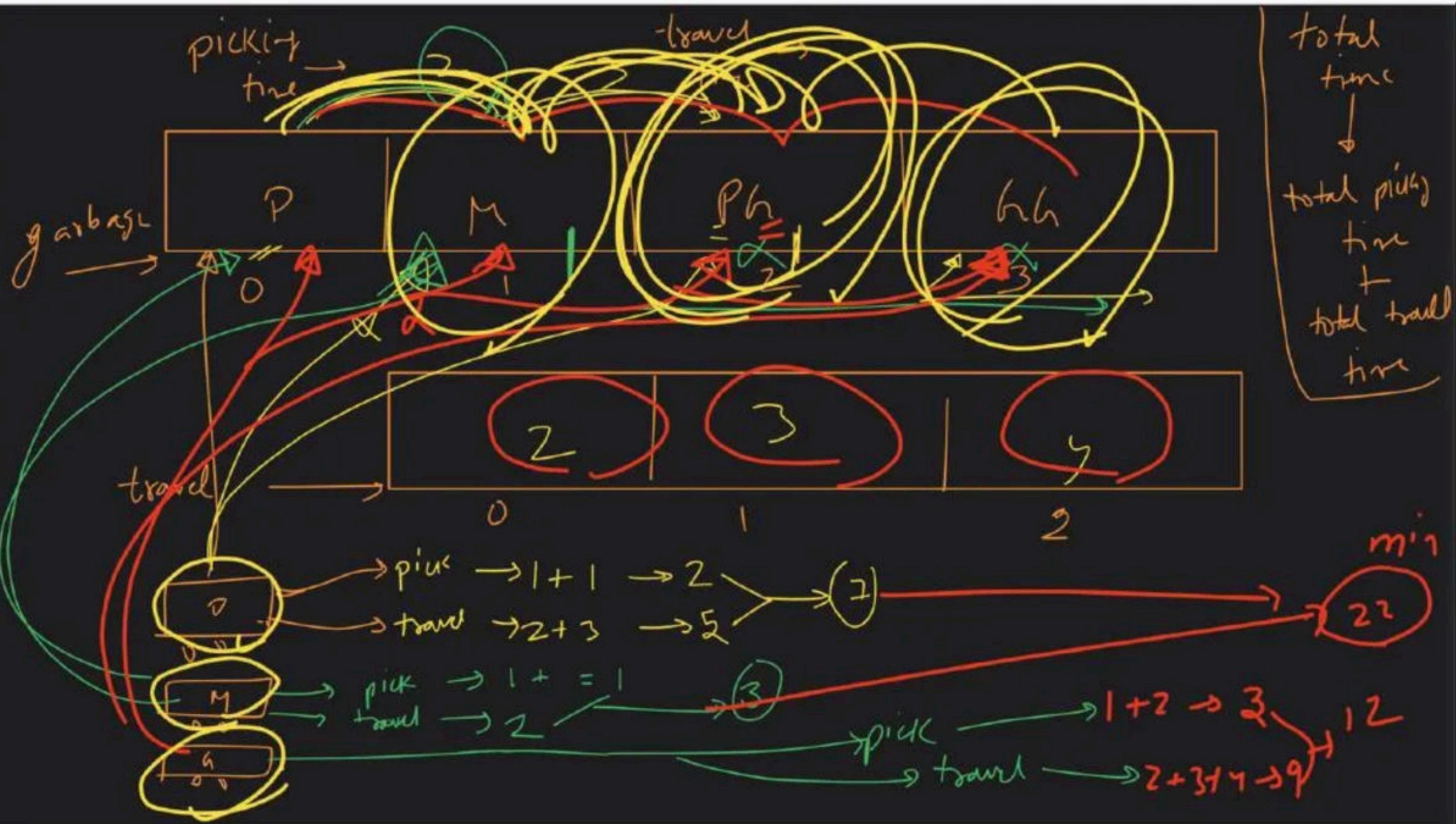
the quick brown fox jumps over the lazy dog

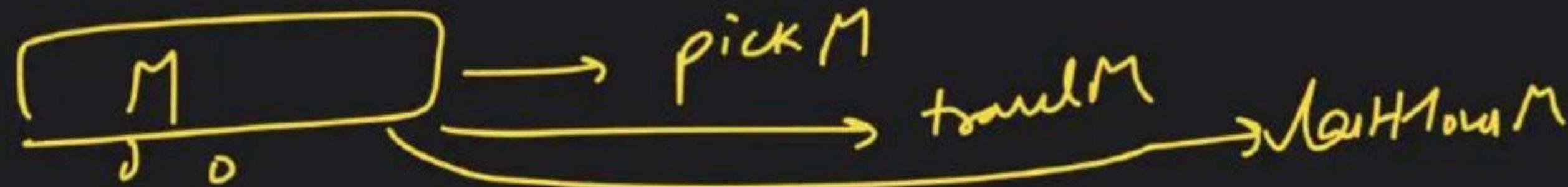
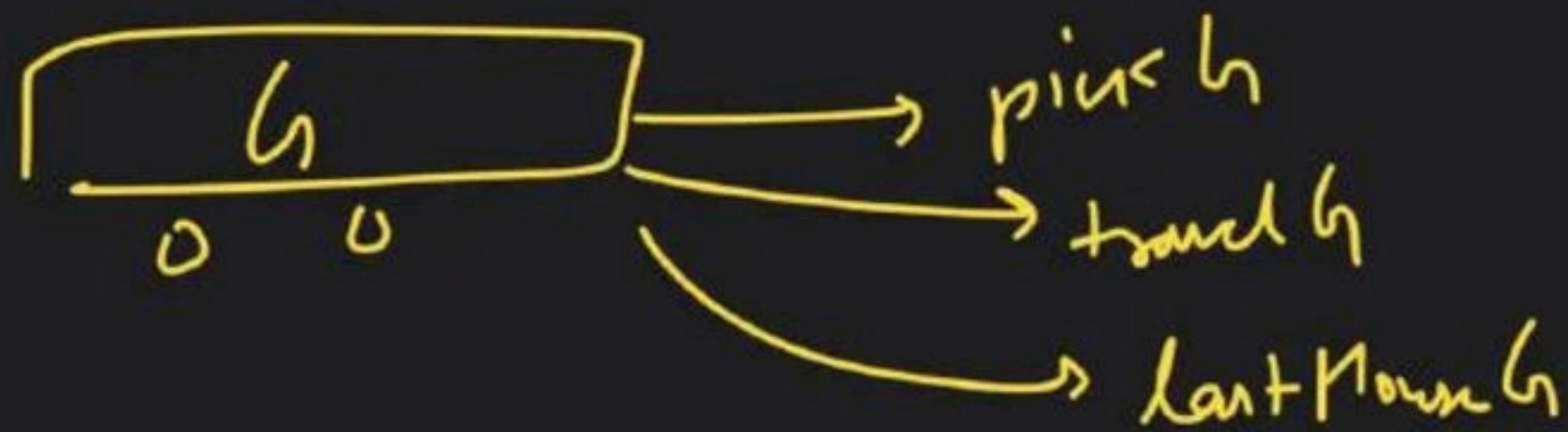
the quick brown fox jumps over the lazy dog

a b c d e f g i j k l m n o p c q y h

start → a b c d e f g i j k l m n o p c q y h







for (

{

for (

{

j

n

n

d_n)

vector

m

stry

k = 10

d_{n*m}

vector

str
j12

$\pi/\rho \rightarrow \text{words} \rightarrow [$

"abc"
"def"
"ggb"
"dgg"
"dkd"
"ccc"

$]$

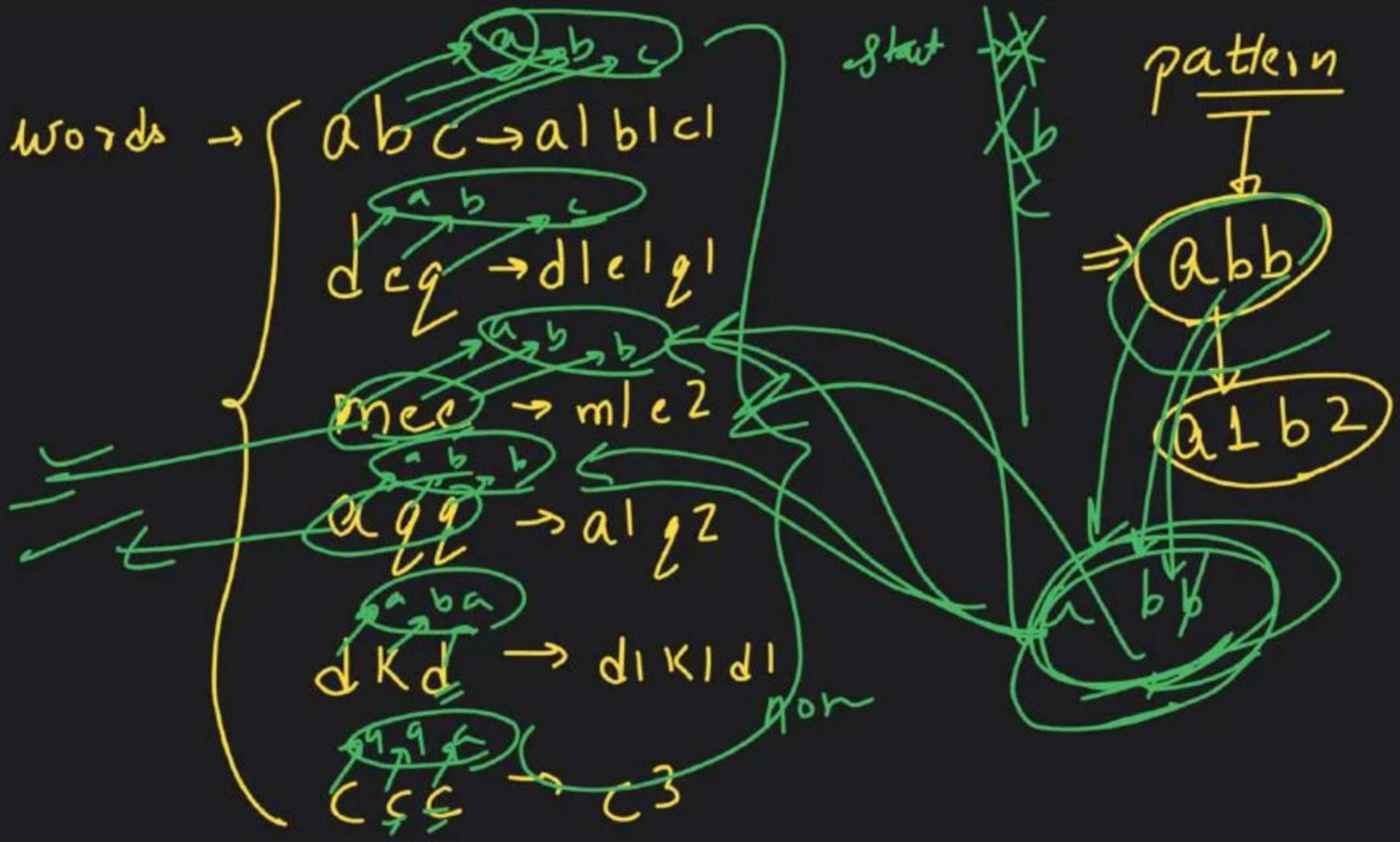
$\rightarrow \text{pattern} \rightarrow$

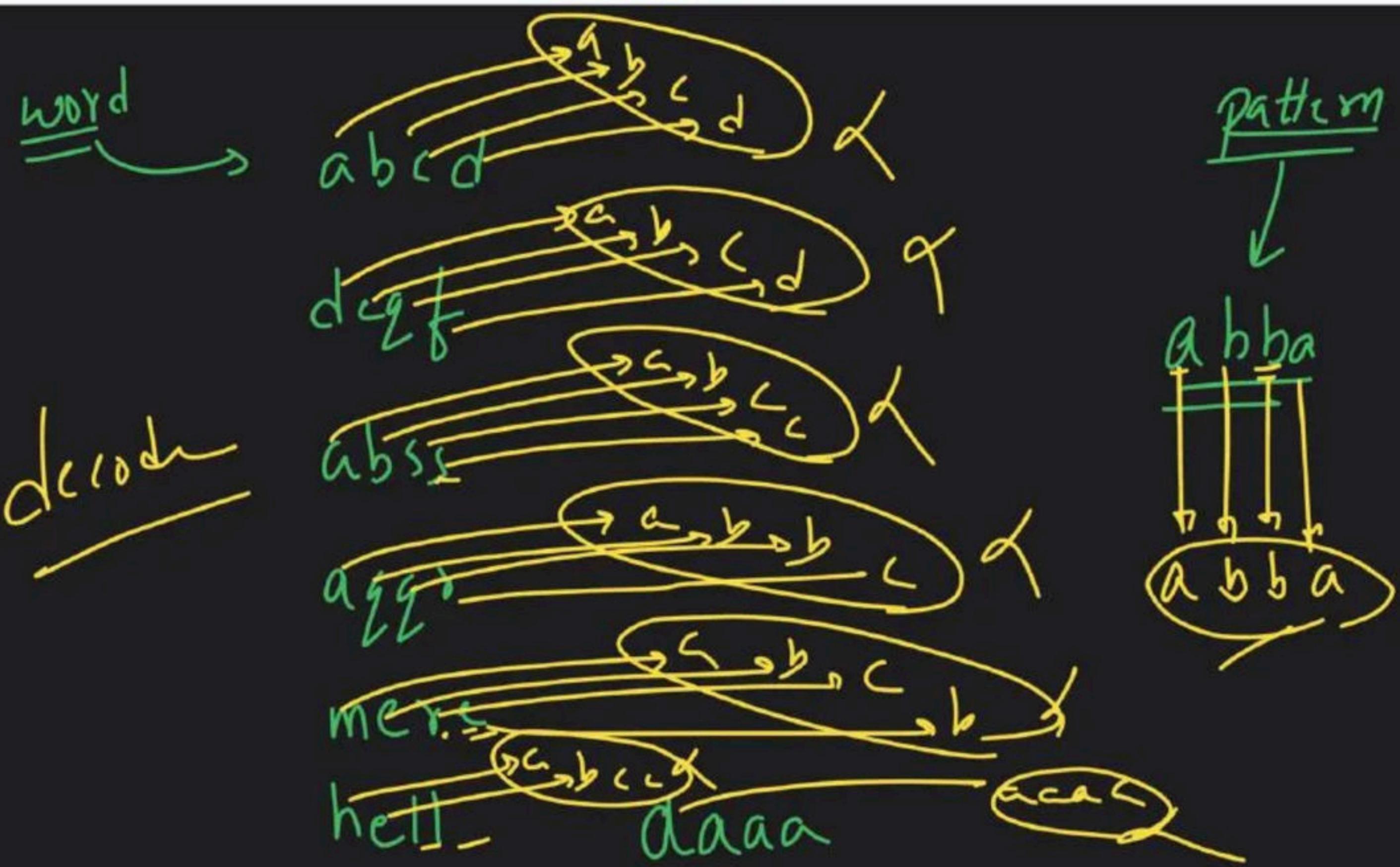
~~abb~~
~~abb~~
mc
ccc

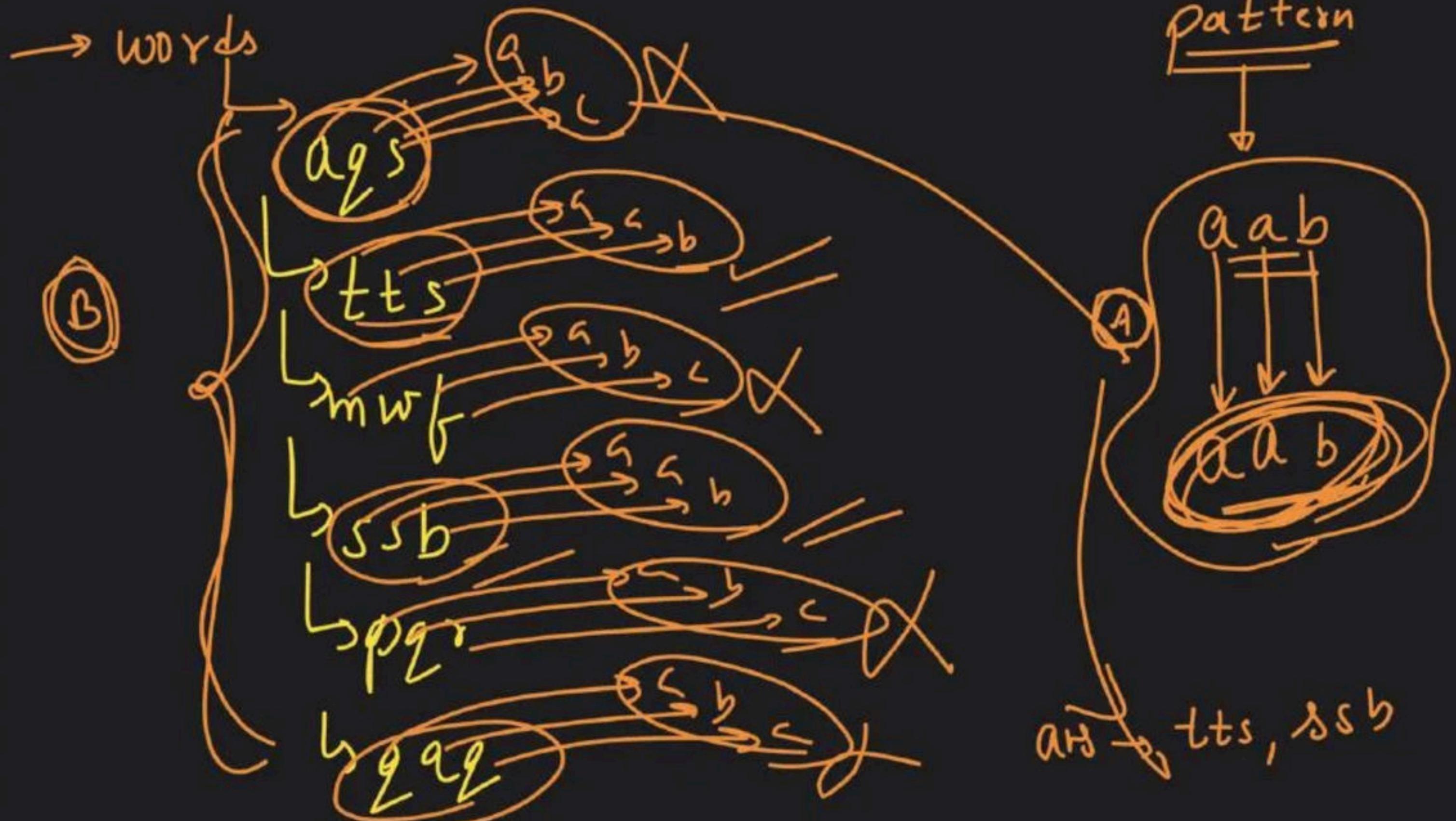
dgg =
~~dgg~~

"abb"
bb

min







Sat
Get up
8 am - Doubt

Love → M
W

Fri
Thu
Fri

A Assign / Quiz / H/w
Do it
I → Extra class
Sunday → MCAT class

Meg a class
~ ~ ~ ~ ~



①

~~jmp~~ ~~concept~~

~~T~~

~~GOL~~

Pointers























































