

Words - K Length Words - 2 : String \rightarrow abcabc.

Revision \rightarrow 3 box, 2 distinct item $\{ i_1, i_2 \}$

$\begin{matrix} 1 & 2 \\ 1 & - \\ 1 & - 2 \\ - & 1 & 2 \end{matrix}$

$\begin{matrix} 2 & 1 \\ 2 & - \\ 2 & - 1 \\ - & 2 & 1 \end{matrix}$

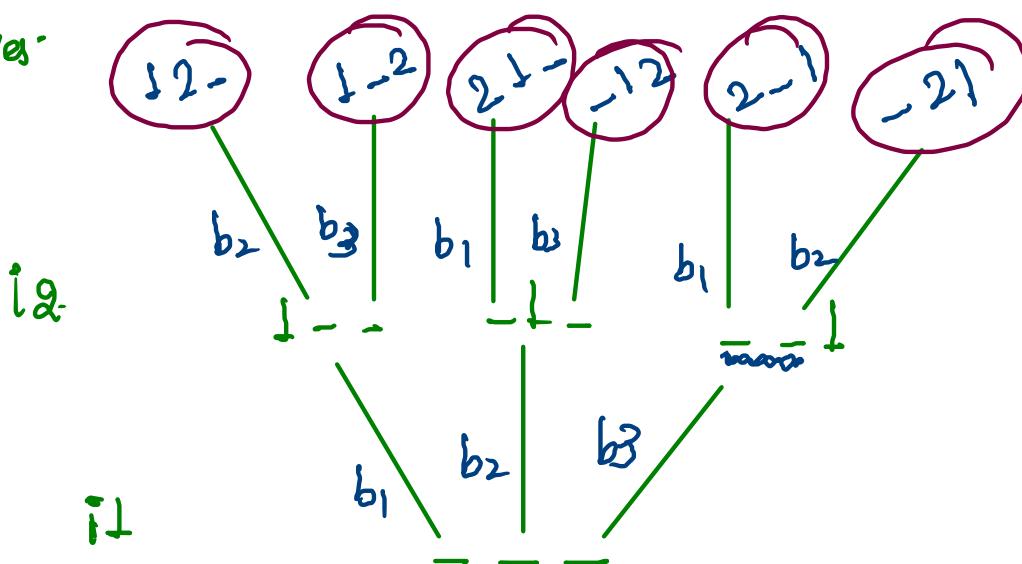
} select 2 box from 3 box
in an order

$[s_1 | s_2]$

revision of tree \rightarrow

level \rightarrow items

options \rightarrow boxes



$$3P_2 = \frac{3!}{1!} = 6$$

abcabc
unique string \rightarrow abc
k-length word

ab ba
ac ca
bc cb

a b c ab abc
s1 s2 - \rightarrow ab s2 s1 - \rightarrow ba
s1 - s2 \rightarrow ac s2 - s1 \rightarrow ca
- s1 s2 \rightarrow bc s2 s1 \rightarrow cb

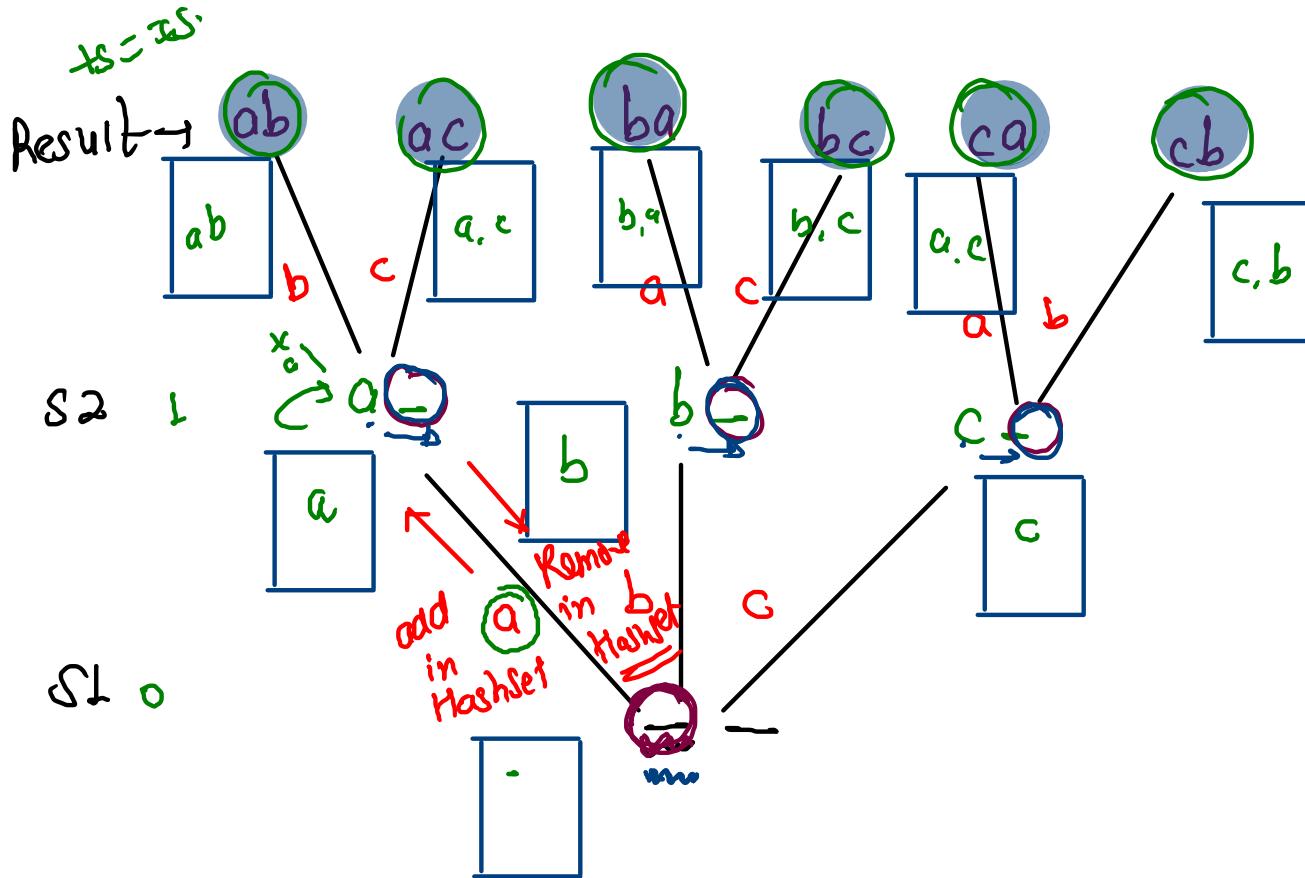
boxes	items	Character	Slots
b1	i1	a	s1
b2	i2	b	s2
b3		c	

Slots \equiv items
characters \equiv boxes

String \rightarrow abcabc, unique string \rightarrow abc

level \rightarrow slots

options \rightarrow characters.



Required \rightarrow

- ① Unique string.
- ② Current slot
- ③ total slot $\rightarrow k$
- ④ HashSet \rightarrow visited
- ⑤ answer so far \rightarrow string.

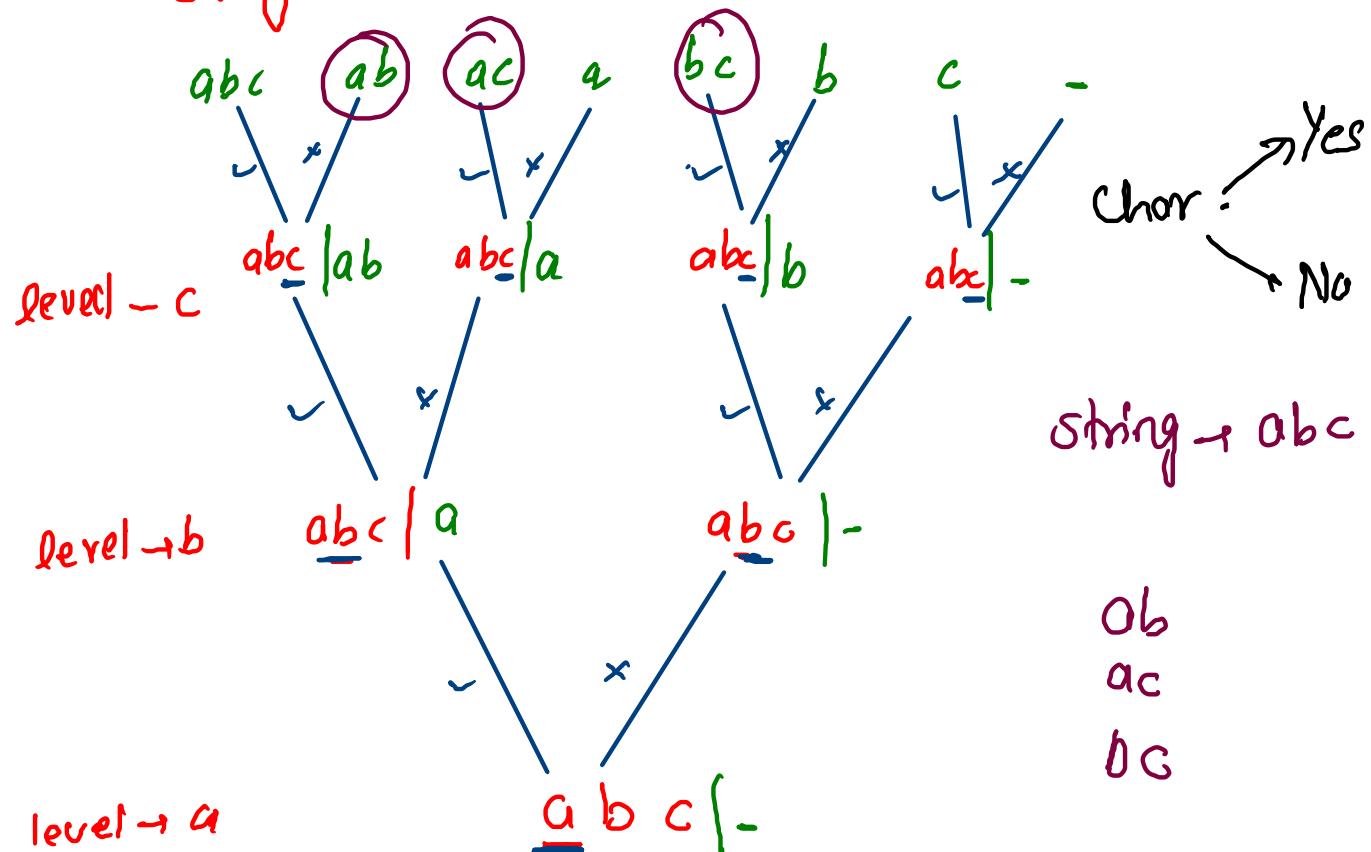
Words - K Selection - 3 $\stackrel{?}{\rightarrow}$ String \rightarrow aabbac , select $k=2$ characters.

level \rightarrow character

option \rightarrow slots

Revision \rightarrow

String \rightarrow abc, select \rightarrow 2 characters



K-selection = 3

String \rightarrow aabbac

K = 3

Depends on freq.

a a a

a a b

a a c

a b b

a b c

b b c

Char

aaa
aa
a

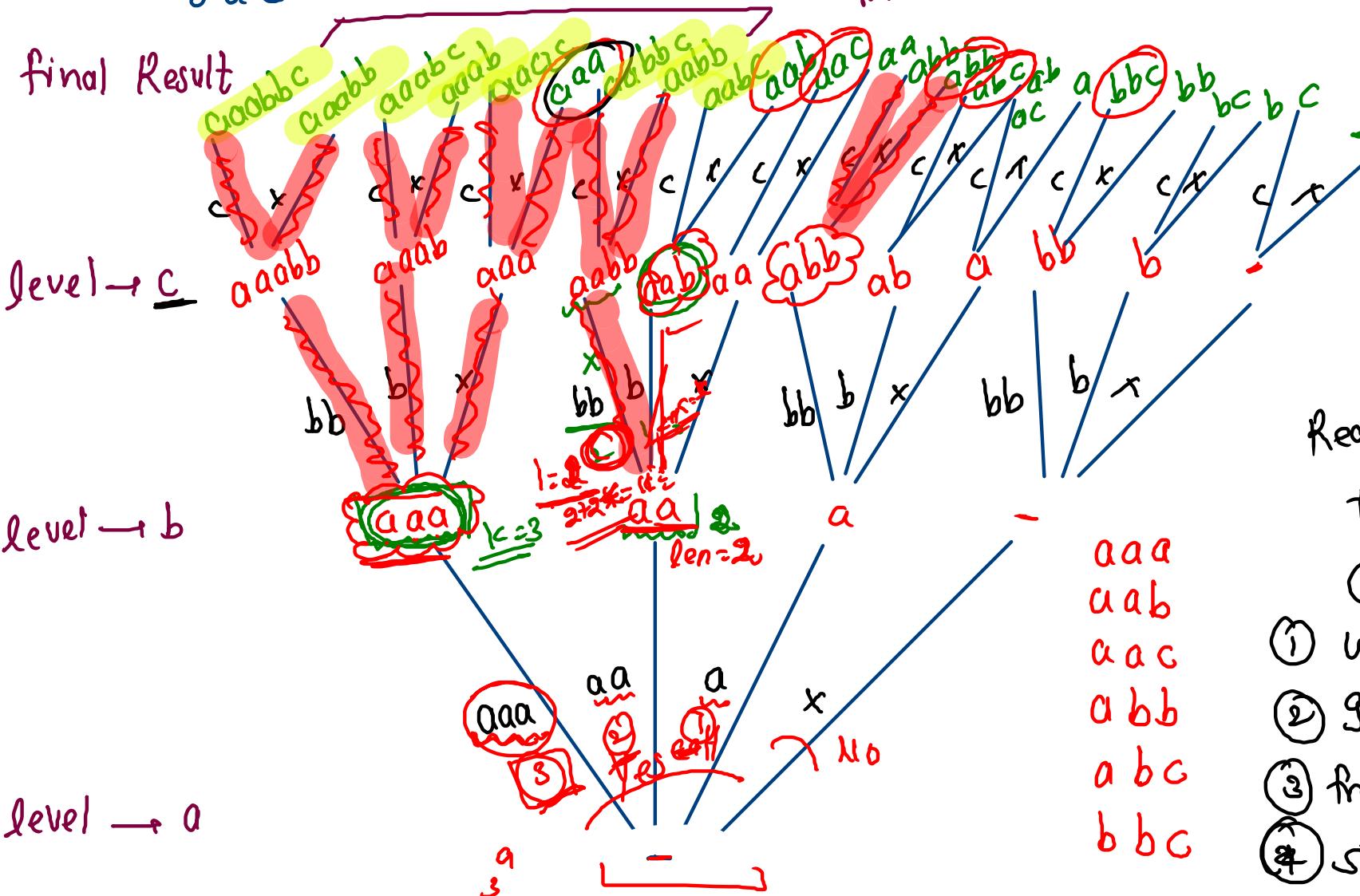
Yes
No x

Options

Yes \rightarrow freq. based
Yes call

No \rightarrow No
call

String → 

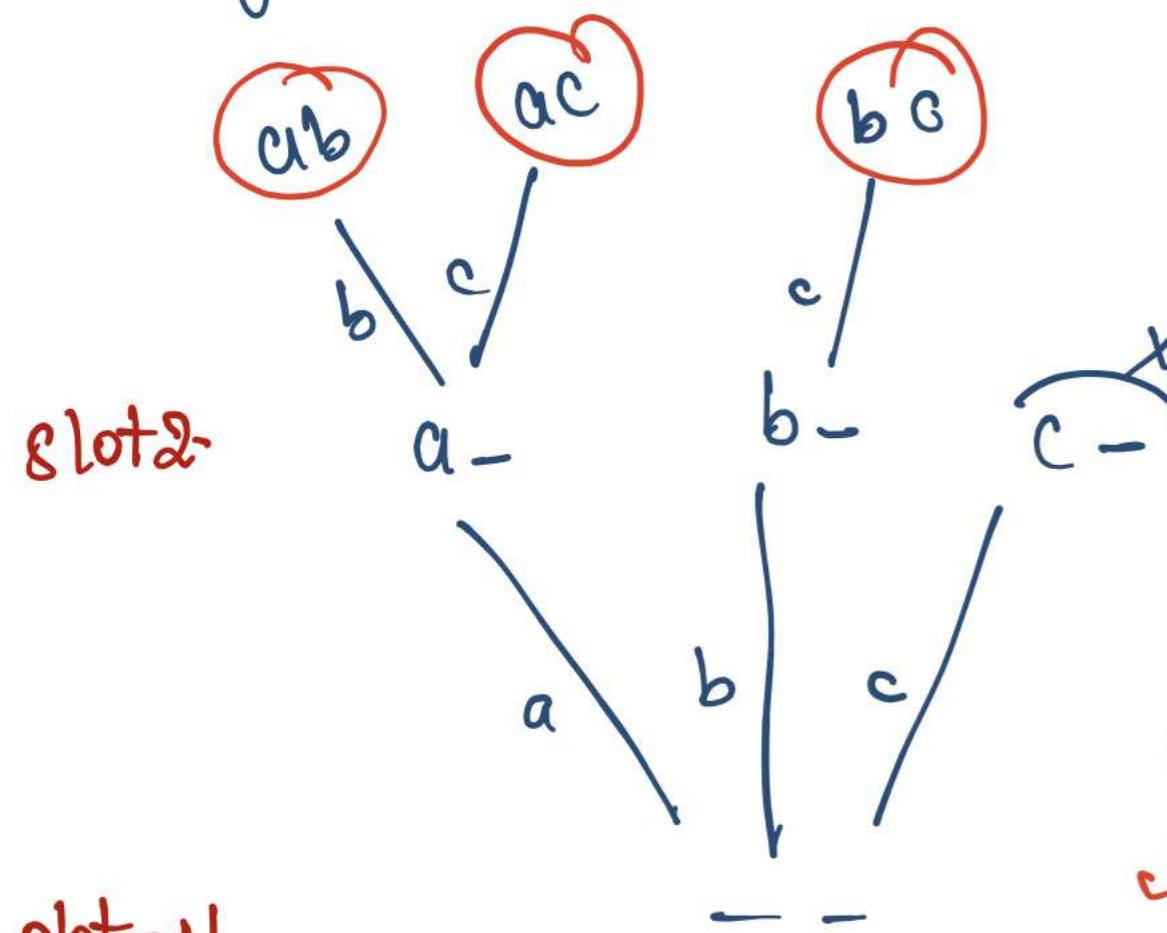


- Requirement for Implementation
- ① Unique string
 - ② Index
 - ③ freq. Map.
 - ④ String + asf
 - ⑤ K

spots → level

Revision: { combination → sorted selection }

String → abc



Requirement

- ① Unique string . Slot 2
- ② final. { Hashmap }
- ③ current slot
- ④ Total slot Slot 1
- ⑤ asf → string .
- ⑥ Index of last character used

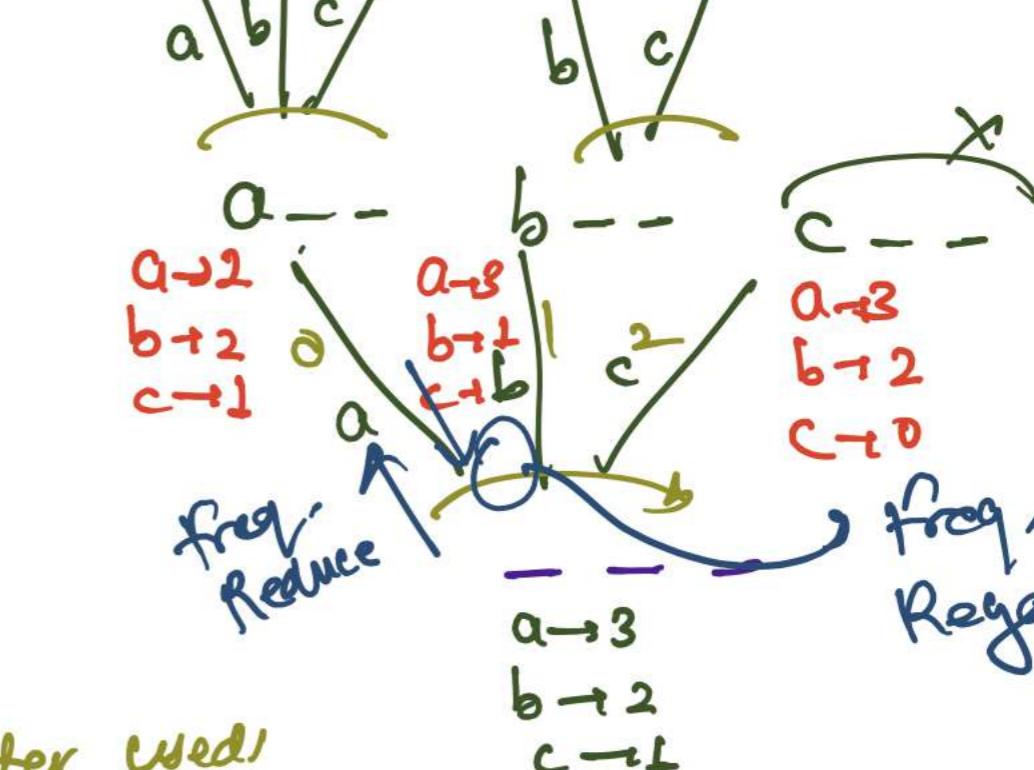
character → options

String → aabbac

using → abc , slots = 3 $\leq k$ 

slot 3

Slot 2



aaa
aab
aac
abb
abc
bbc

base is
answer

freq. Regain

a → 3
b → 2
c → 1

a → 2
b → 2
c → 1

a → 3
b → 1
c → 0

a → 2
b → 2
c → 0

a → 3
b → 2
c → 1

a → 3
b → 2
c → 1

Words - K Length Words - 3 ; Logic is based on word - K - length - word 1

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9:34 PM

Revision: string → aabbac k =

$$K =$$

generate word —

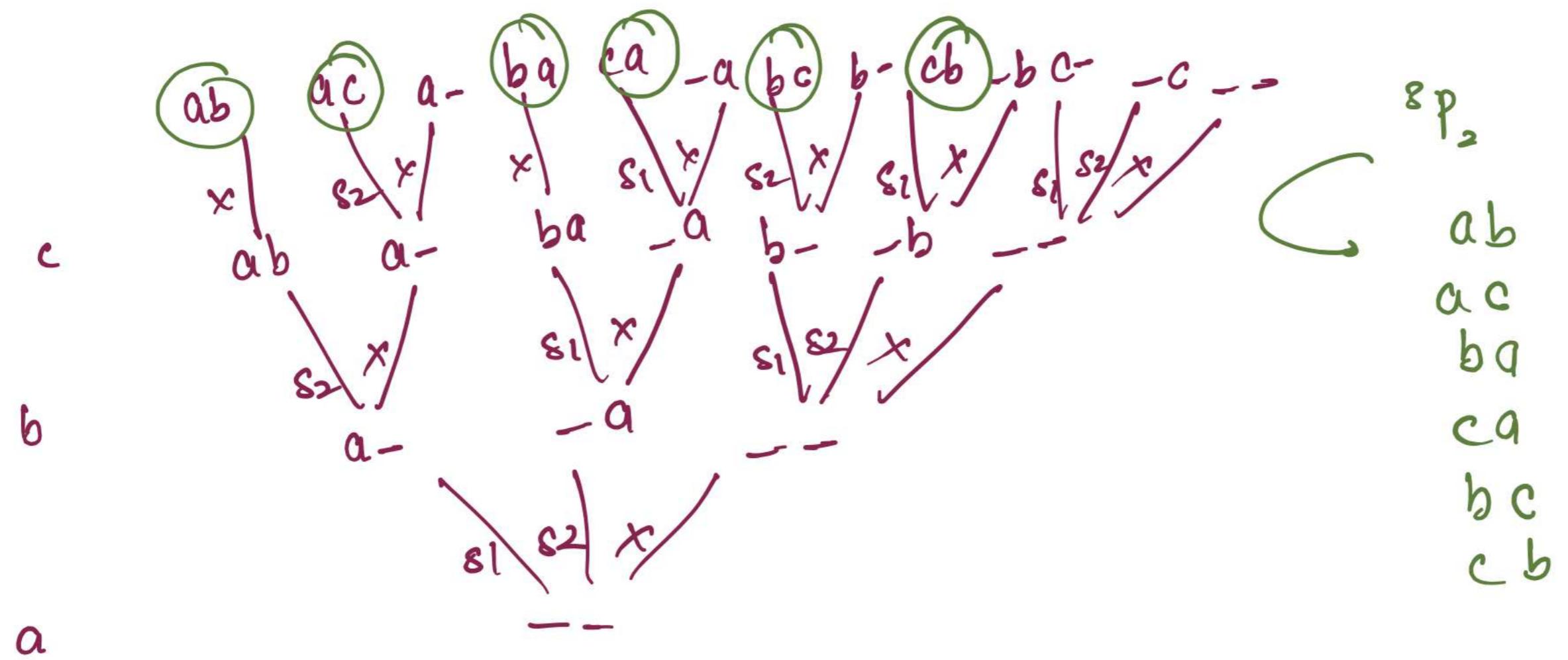
level → character

option → slots

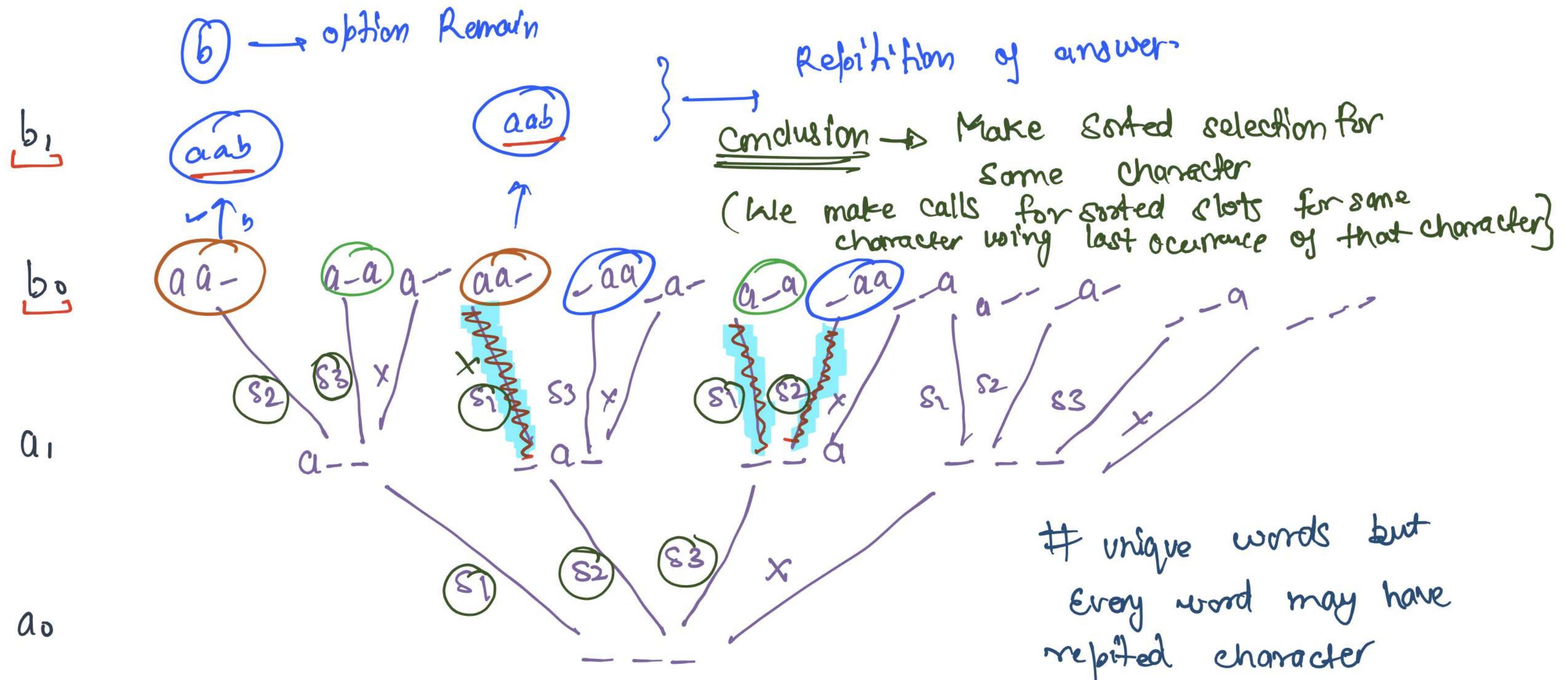
using \rightarrow abc

$${}^3P_2 = \frac{3!}{1!} = 3 \times 2 = 6$$

In current problem

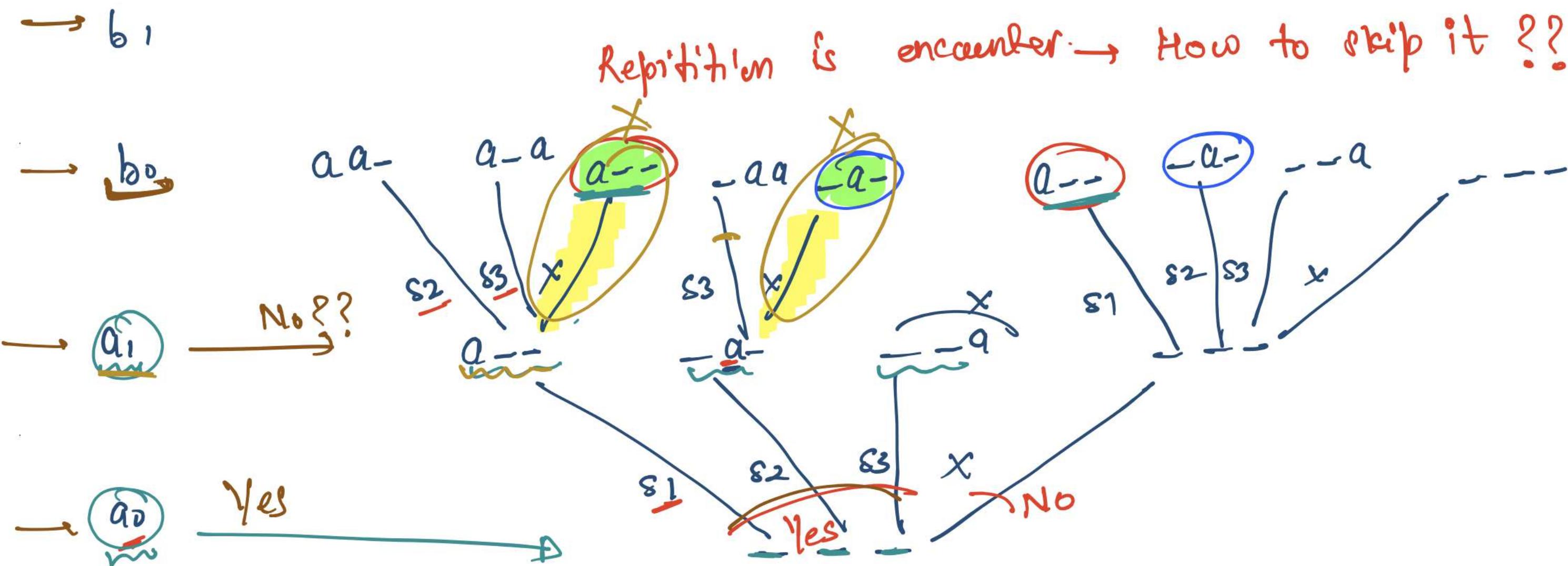


String \rightarrow aabb, $k=3$, level \rightarrow characters, options \rightarrow Yes \rightarrow of slots and No



Recursion Tree with rooted call, String \rightarrow aa bb, $k=2$.

Note: "No call" will not occur after "Yes call" for a character.



String \rightarrow aabb, $K=3$

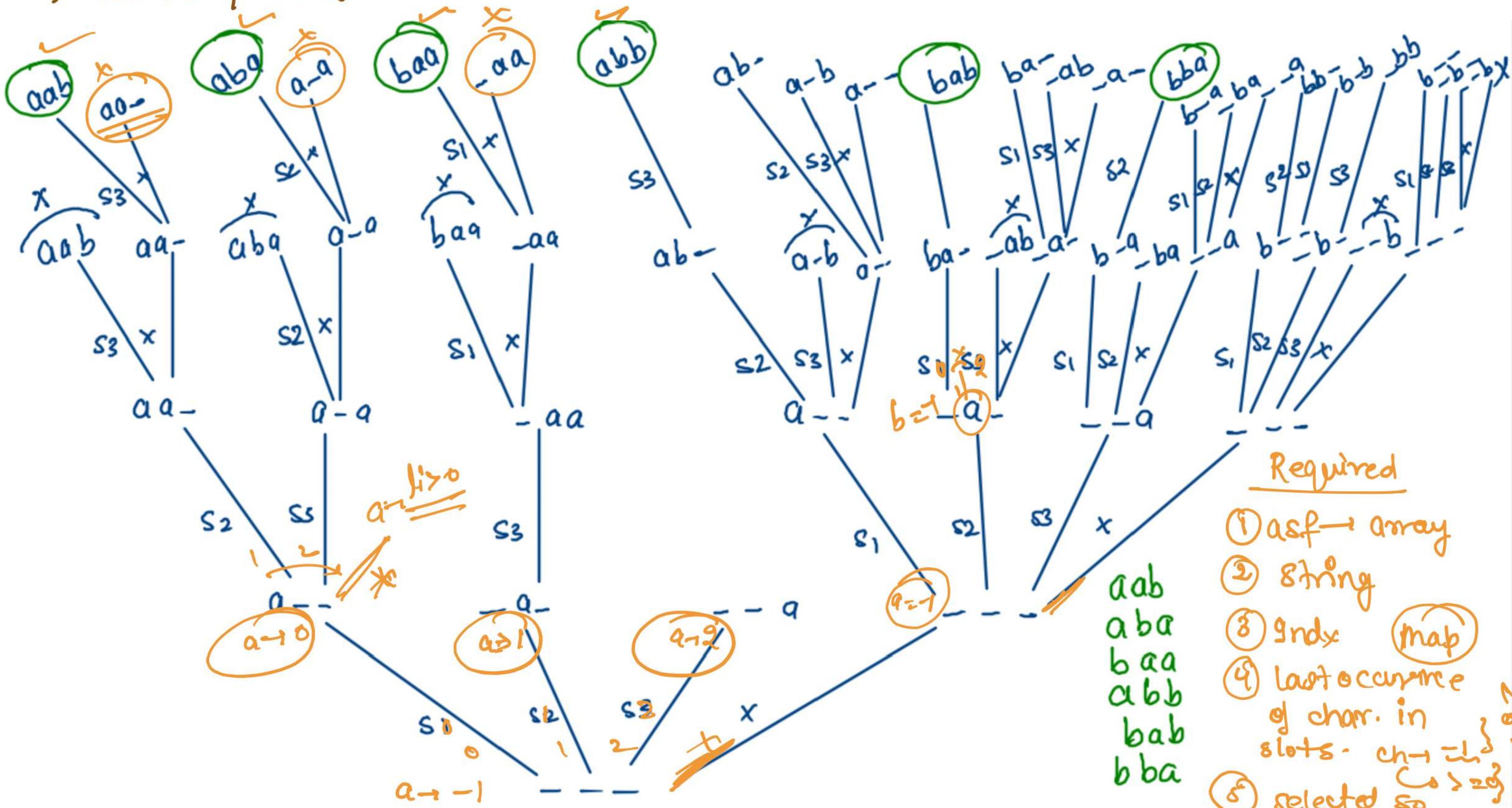
result

b₁

b₀

a₁

a₀



aab
aba
baa
abb
bab
bba

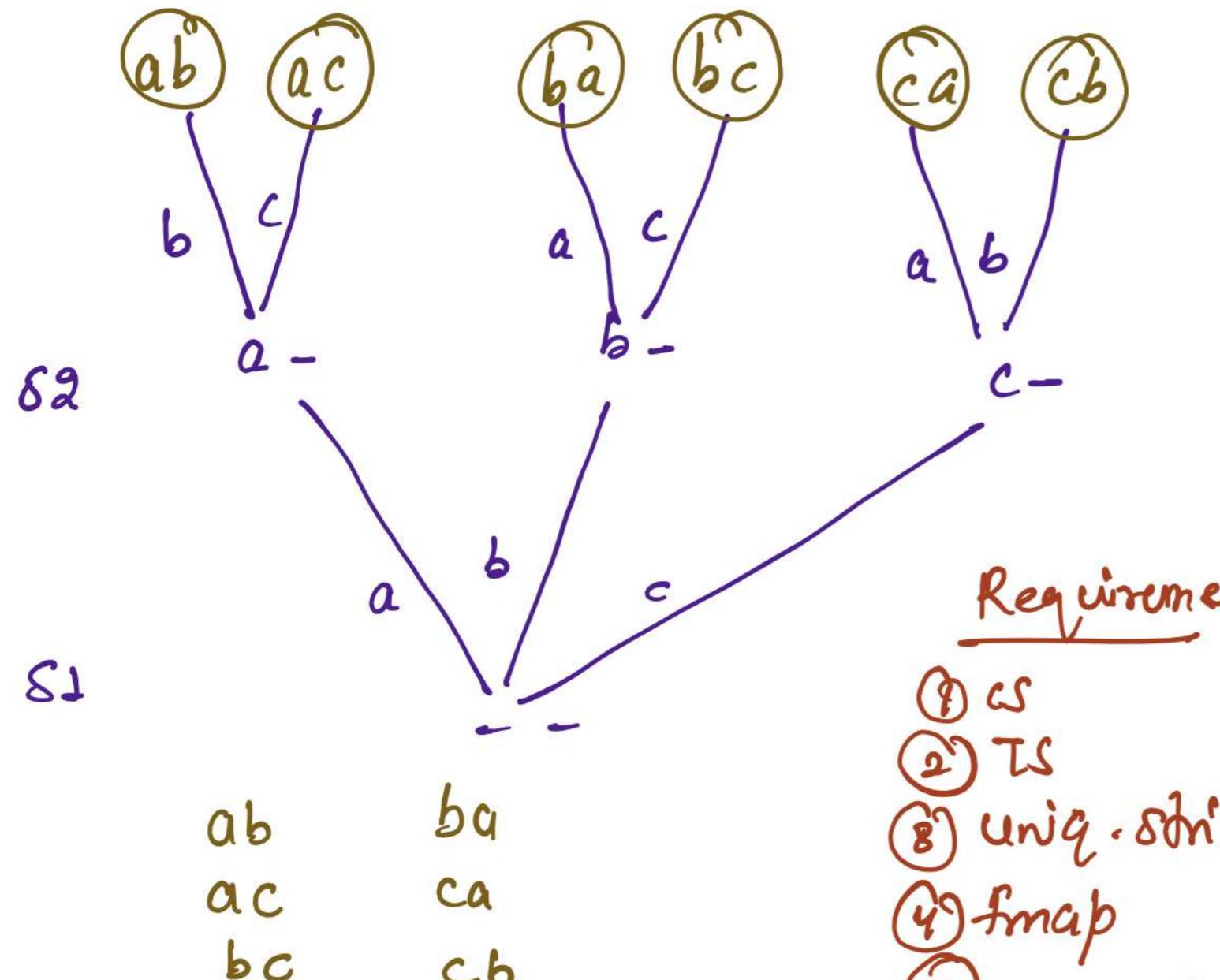
- Required
- ① asf \rightarrow array
 - ② string
 - ③ gndx
 - ④ last occurrence of char. in slots - ch \rightarrow -1 } Not occur yet
 - ⑤ selected so far

Words - K Length Words - 4

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10:47 PM

Revise: → unique string → abc, k=2
level → slots, options → character.



string → aaabb
· K > 2 ·
unique string → ab

