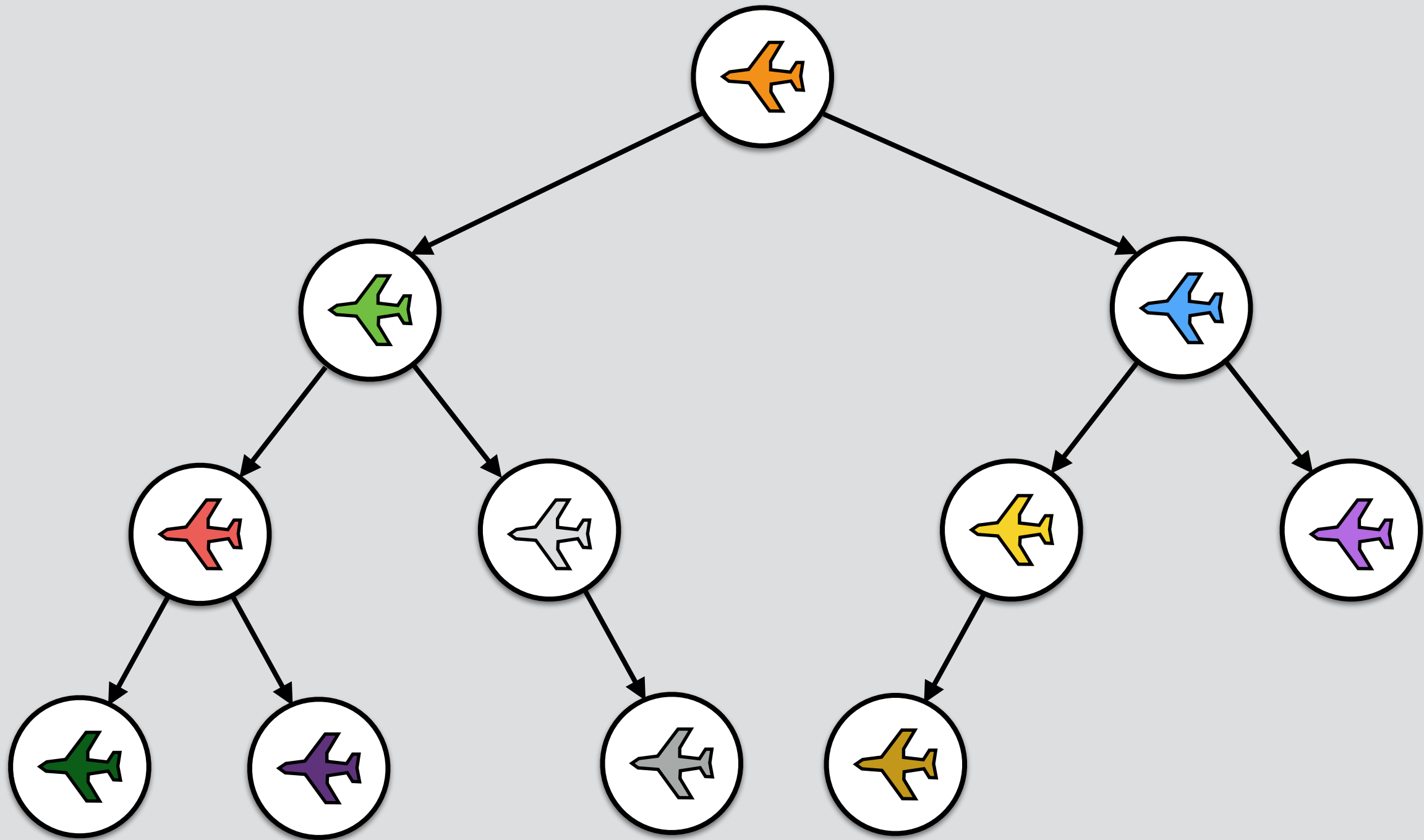
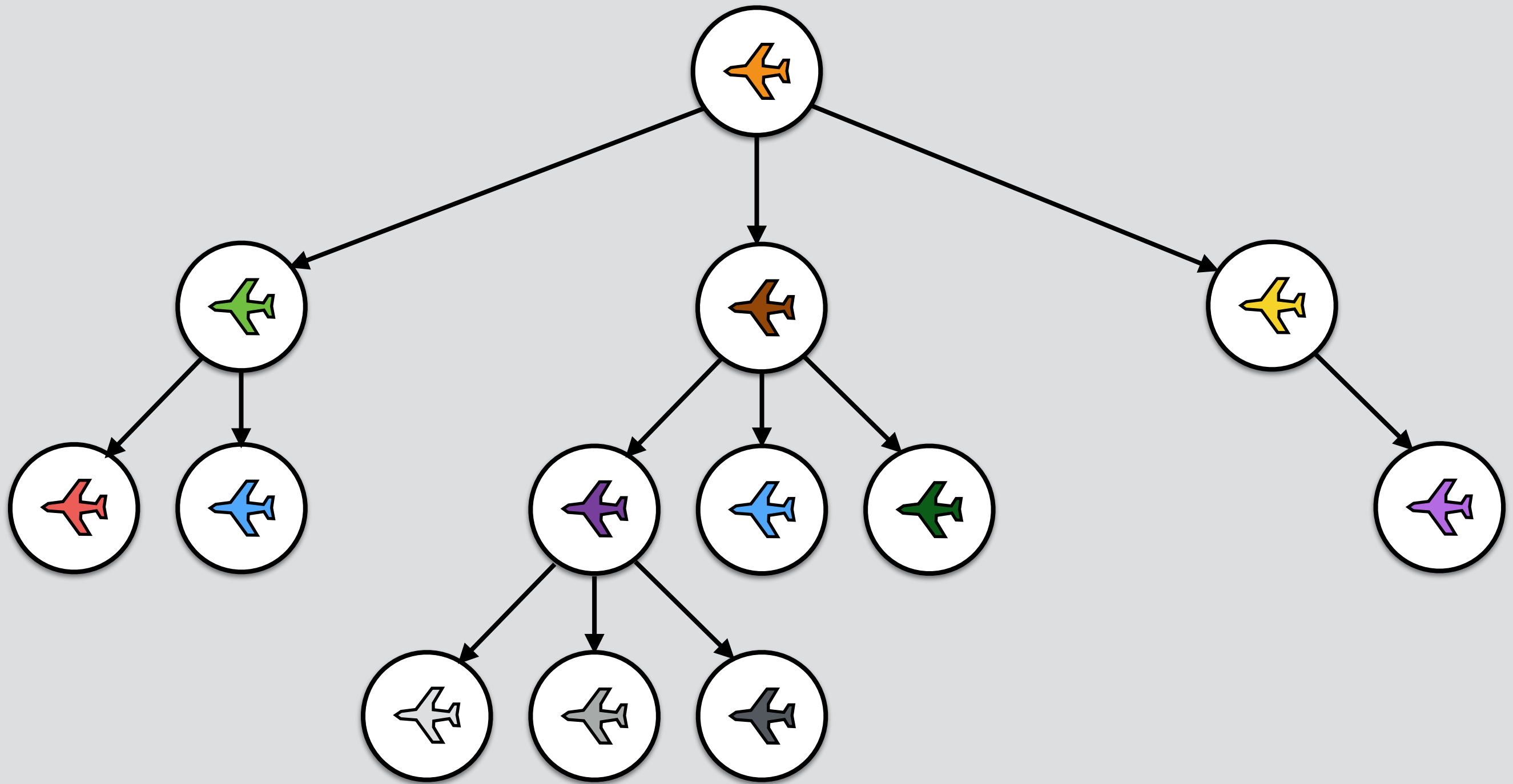


Non-Binary Trees

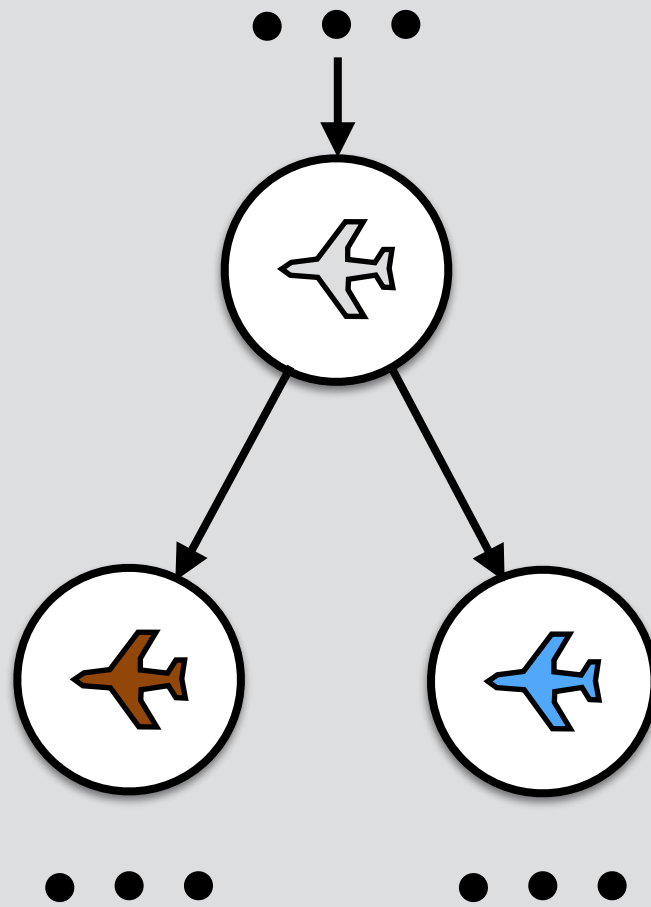
A binary tree



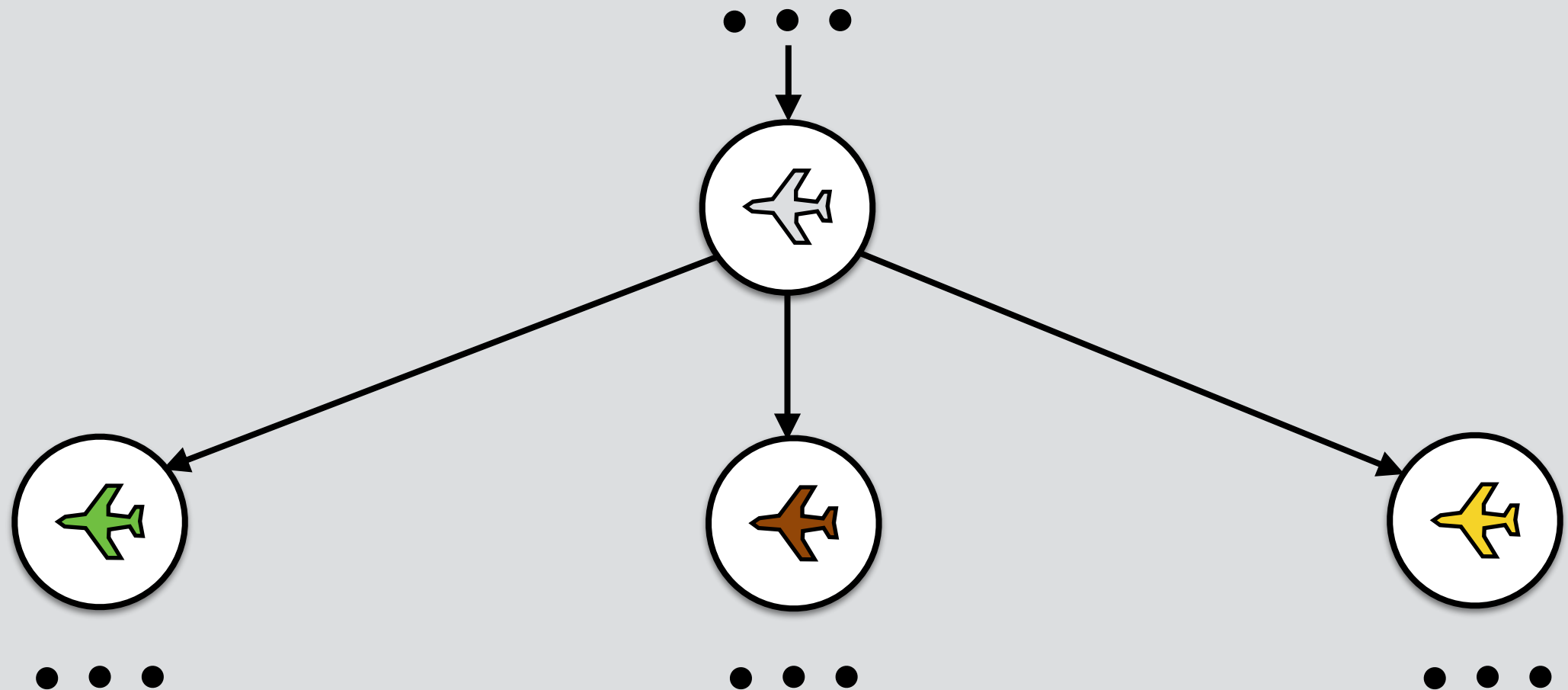
A ternary tree



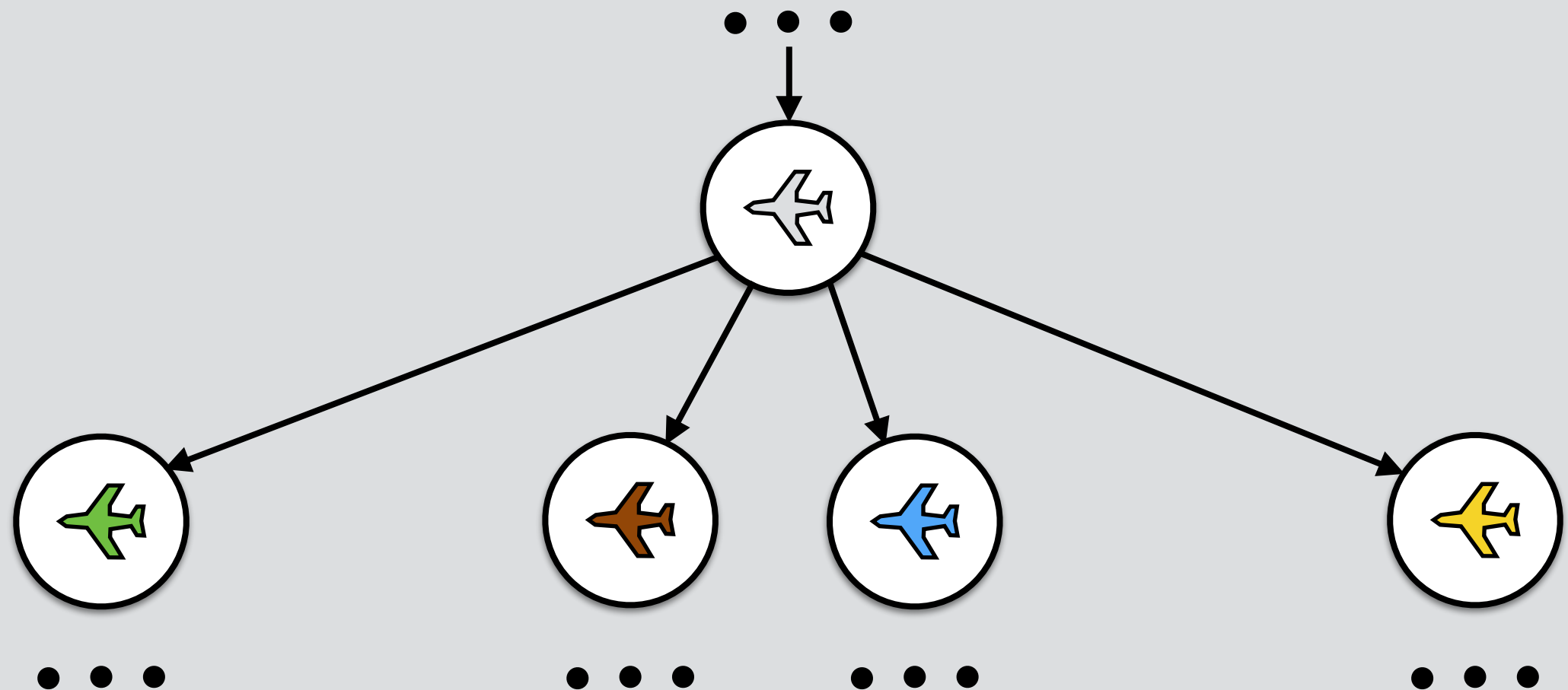
A binary tree



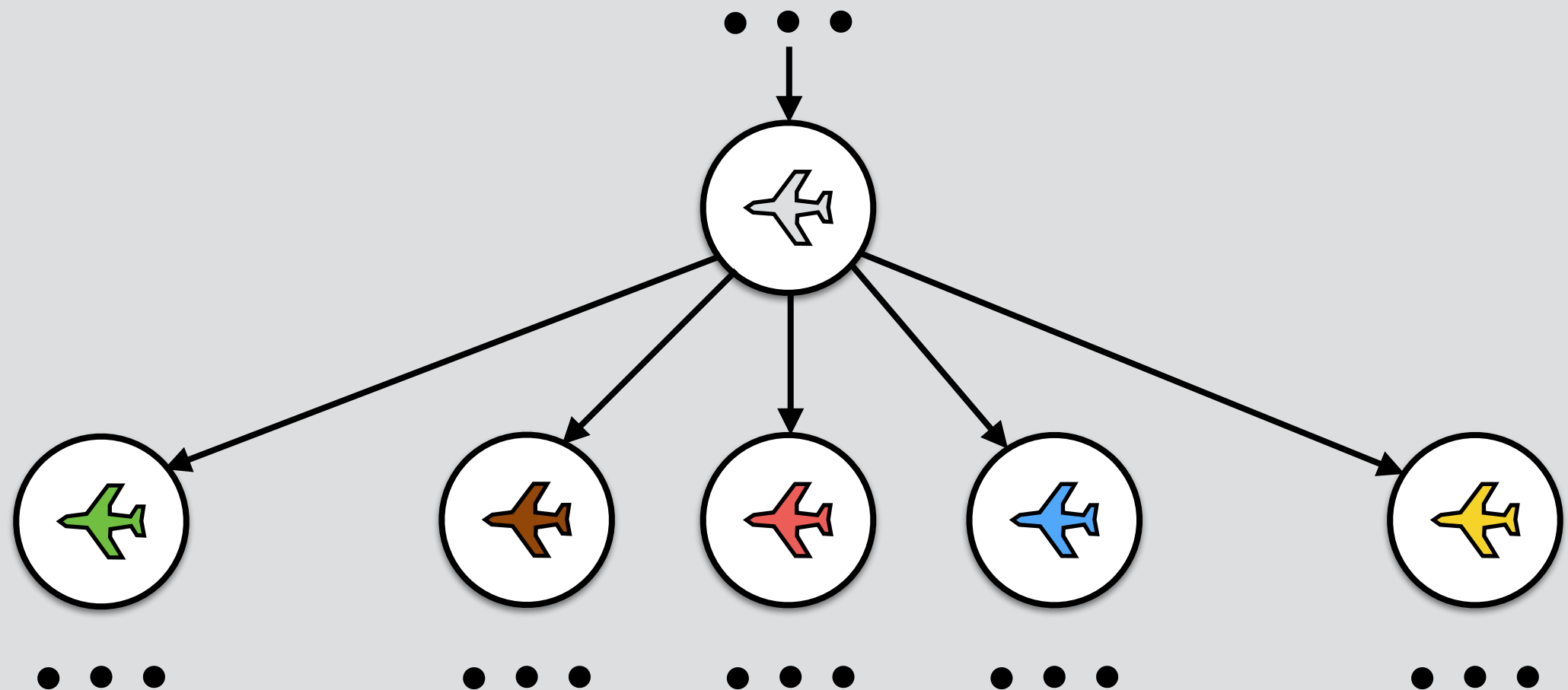
A ternary tree



A 4-ary tree



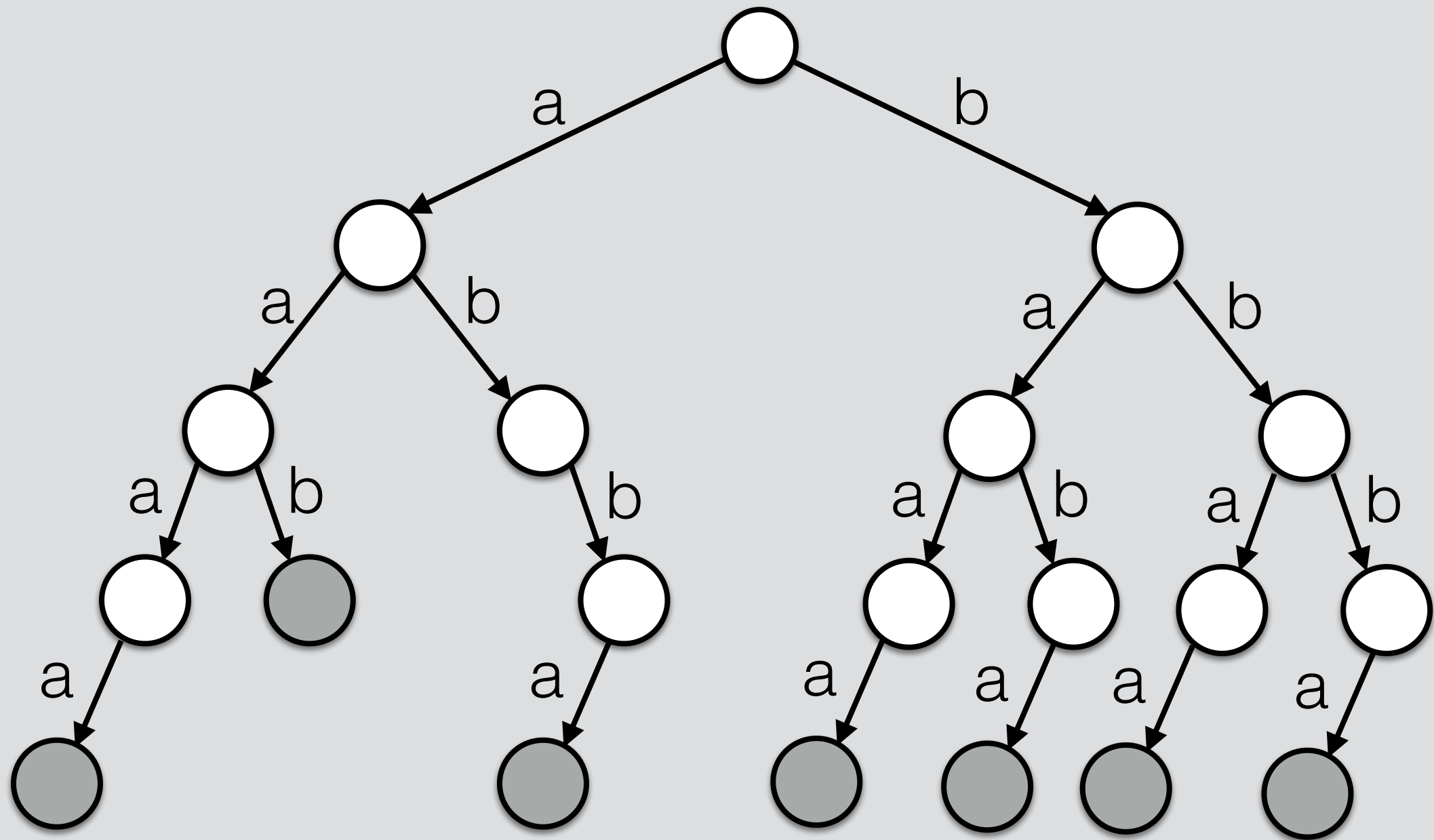
A *5-ary* tree



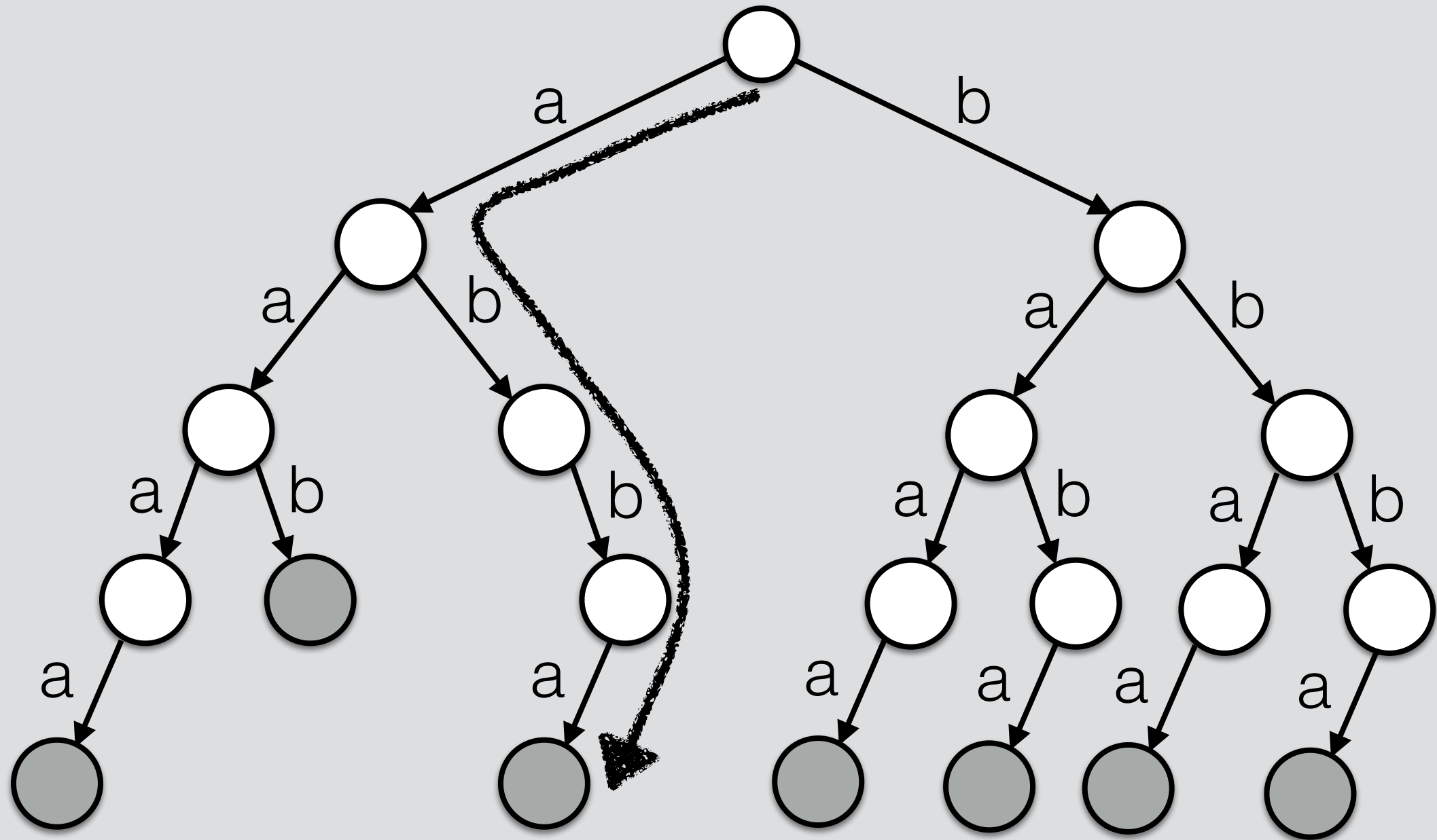
Tries

(Pronounced "try")

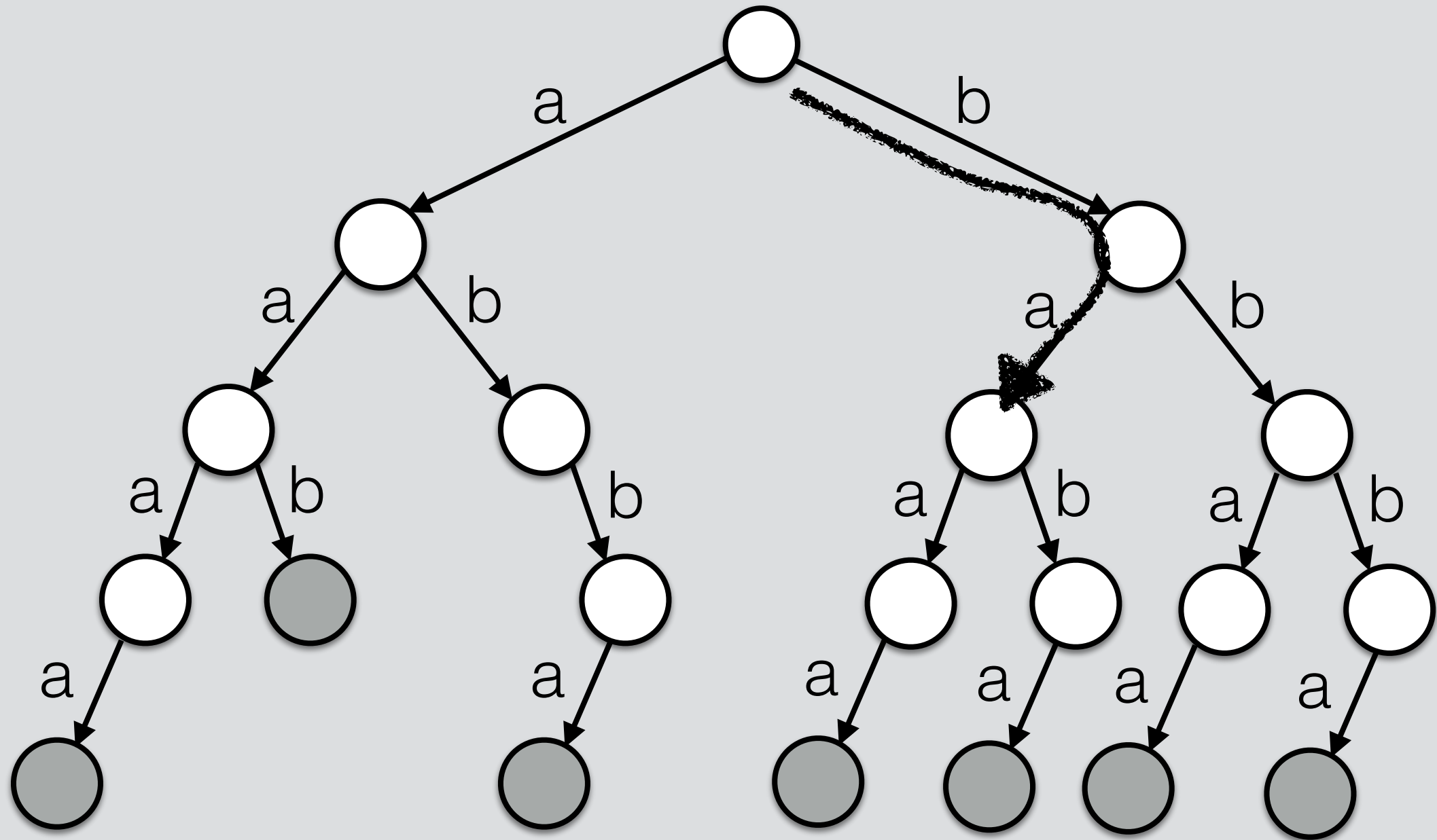
A trie of strings of 'a's and 'b's.

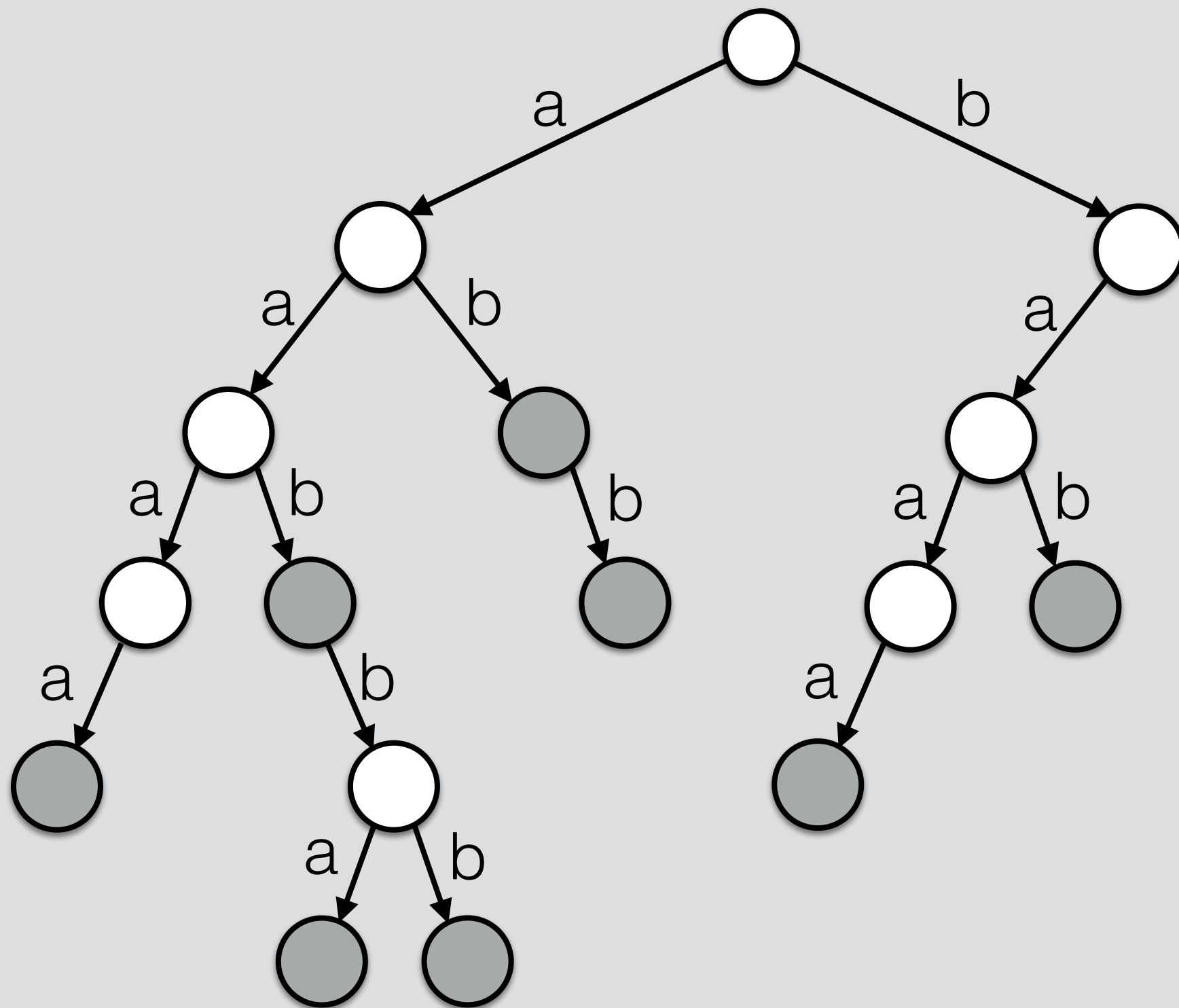


“abba” is in trie.

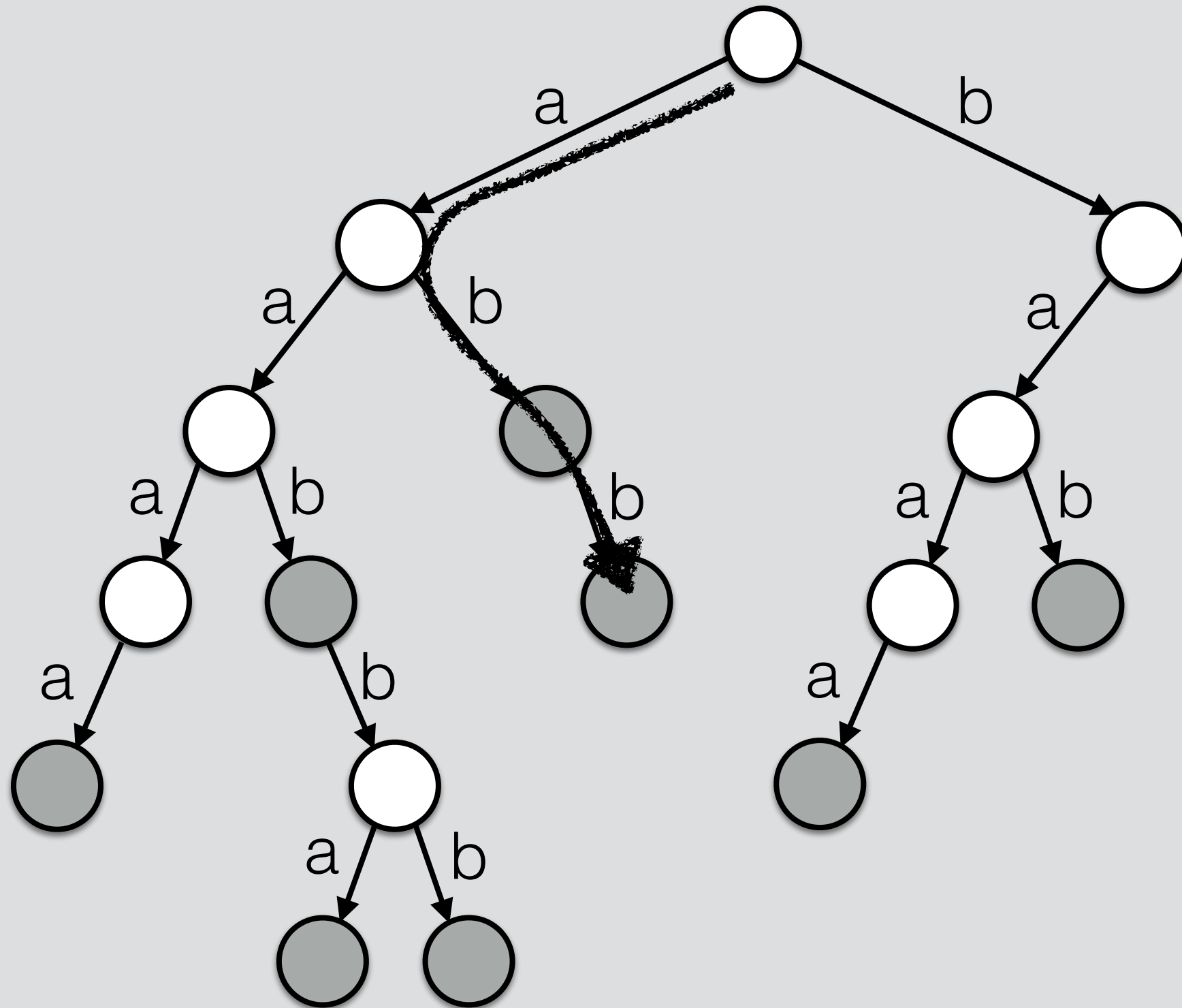


Some string "ba..." is in trie.

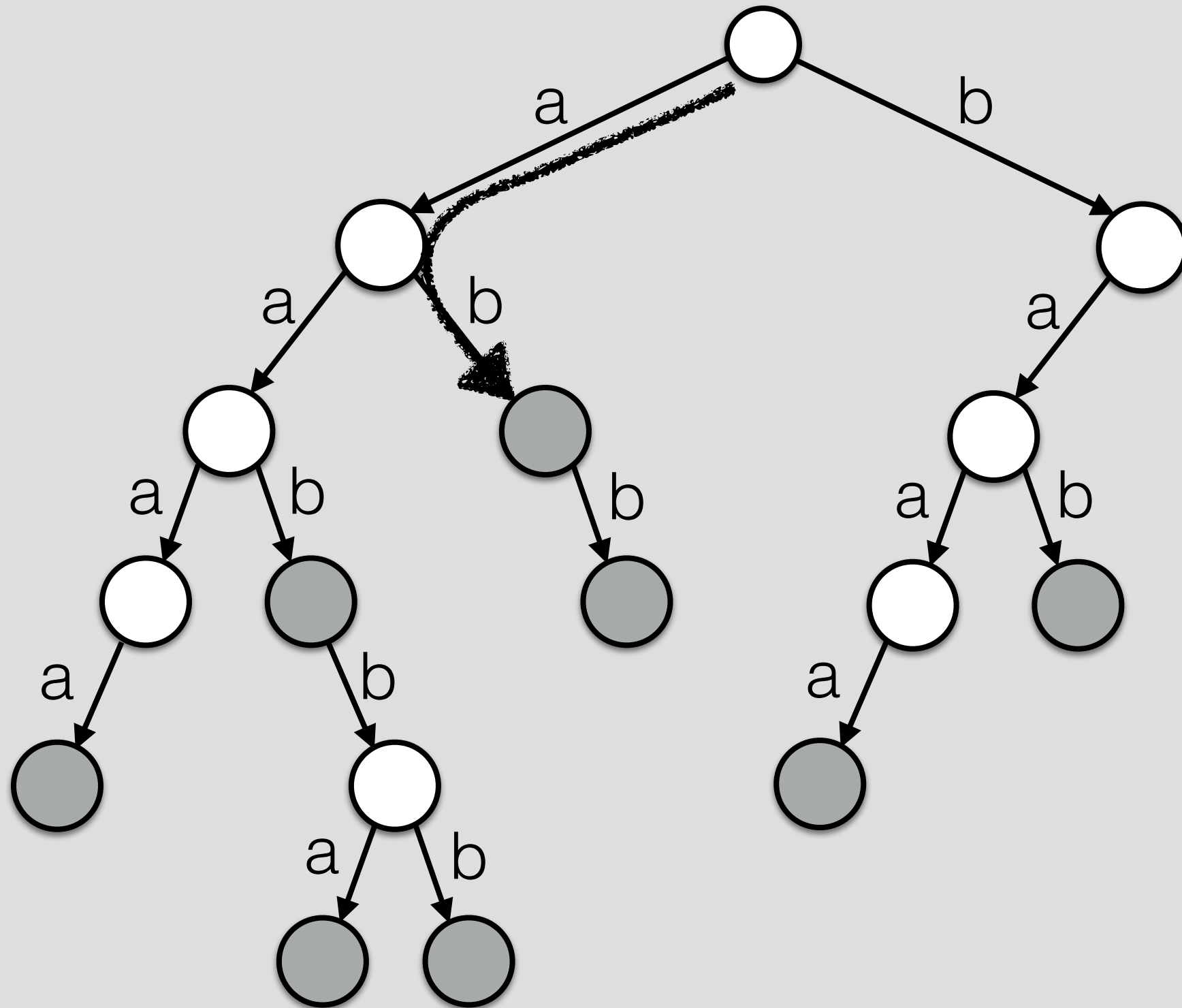




“abb” is in trie.

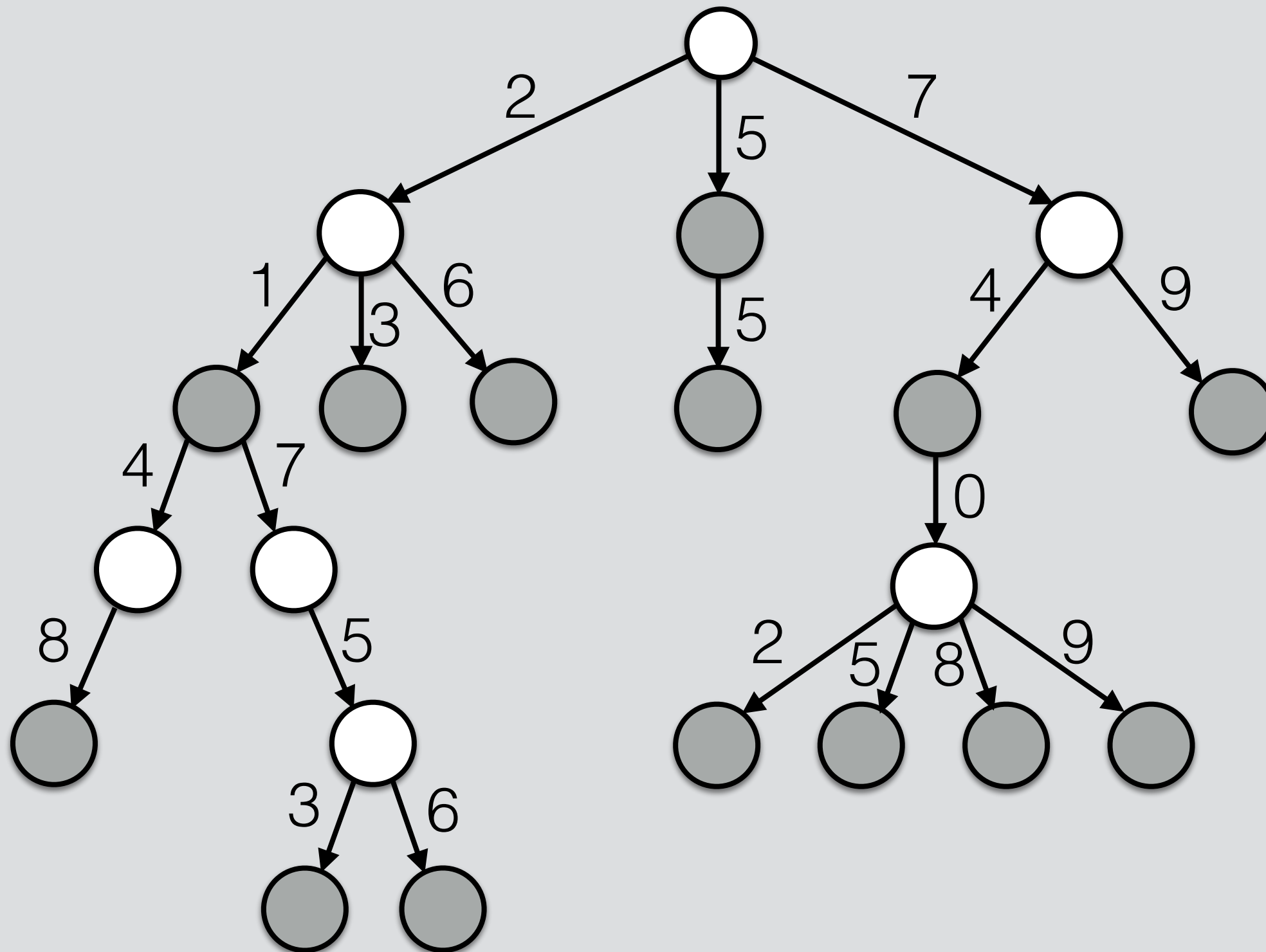


“ab” is in trie.



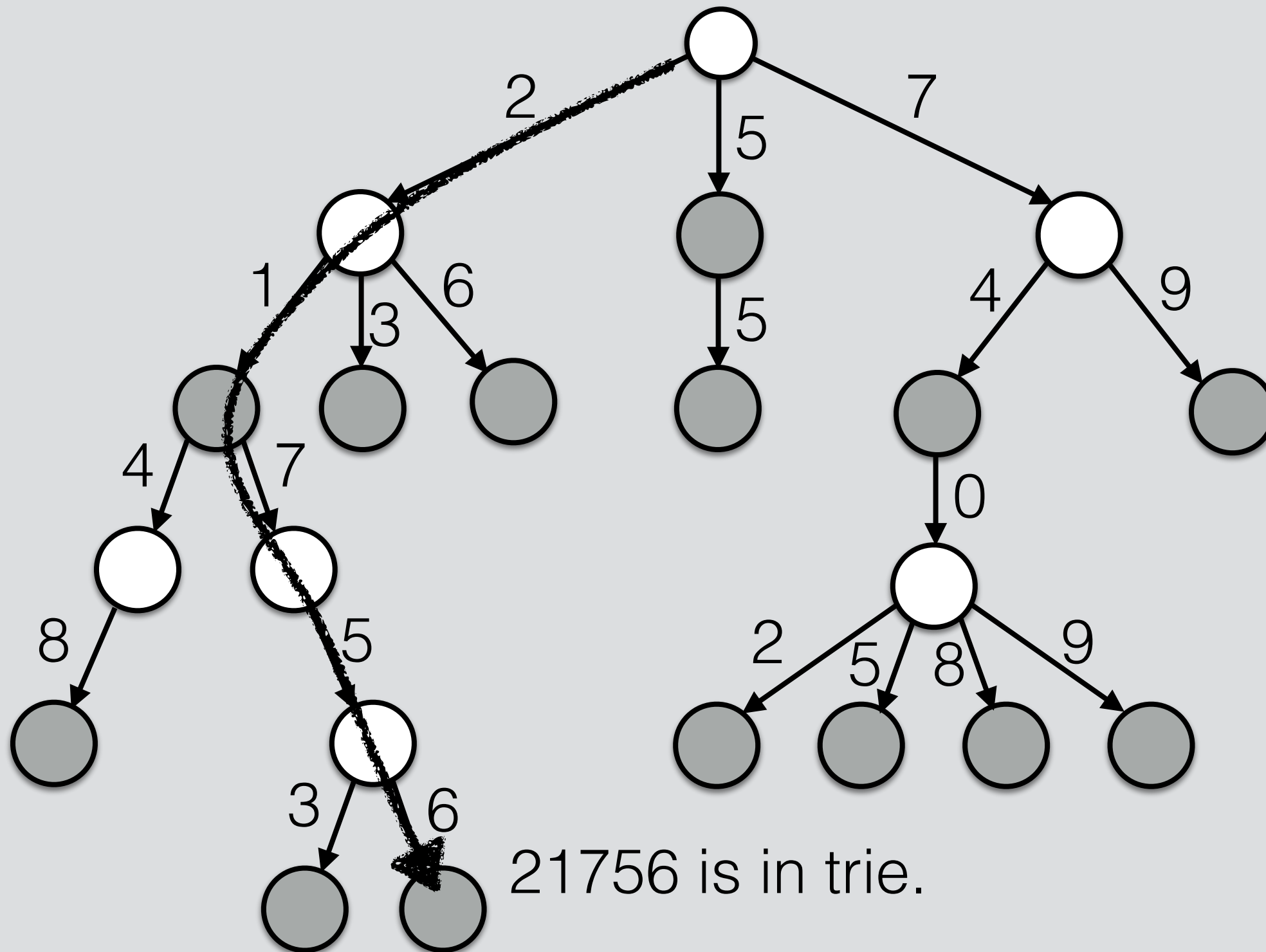
A trie of positive integers

10-ary tree



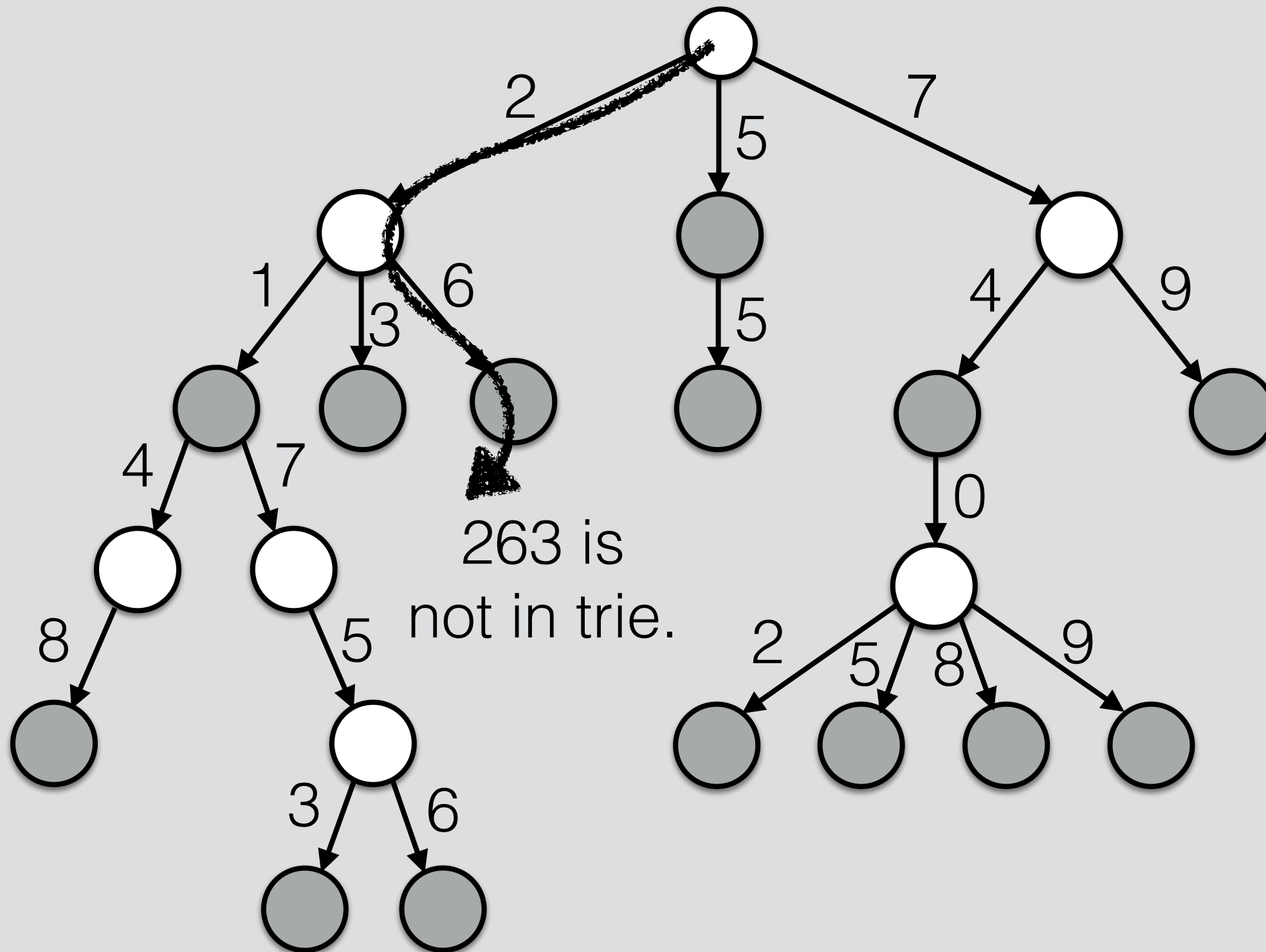
A trie of positive integers

10-ary tree



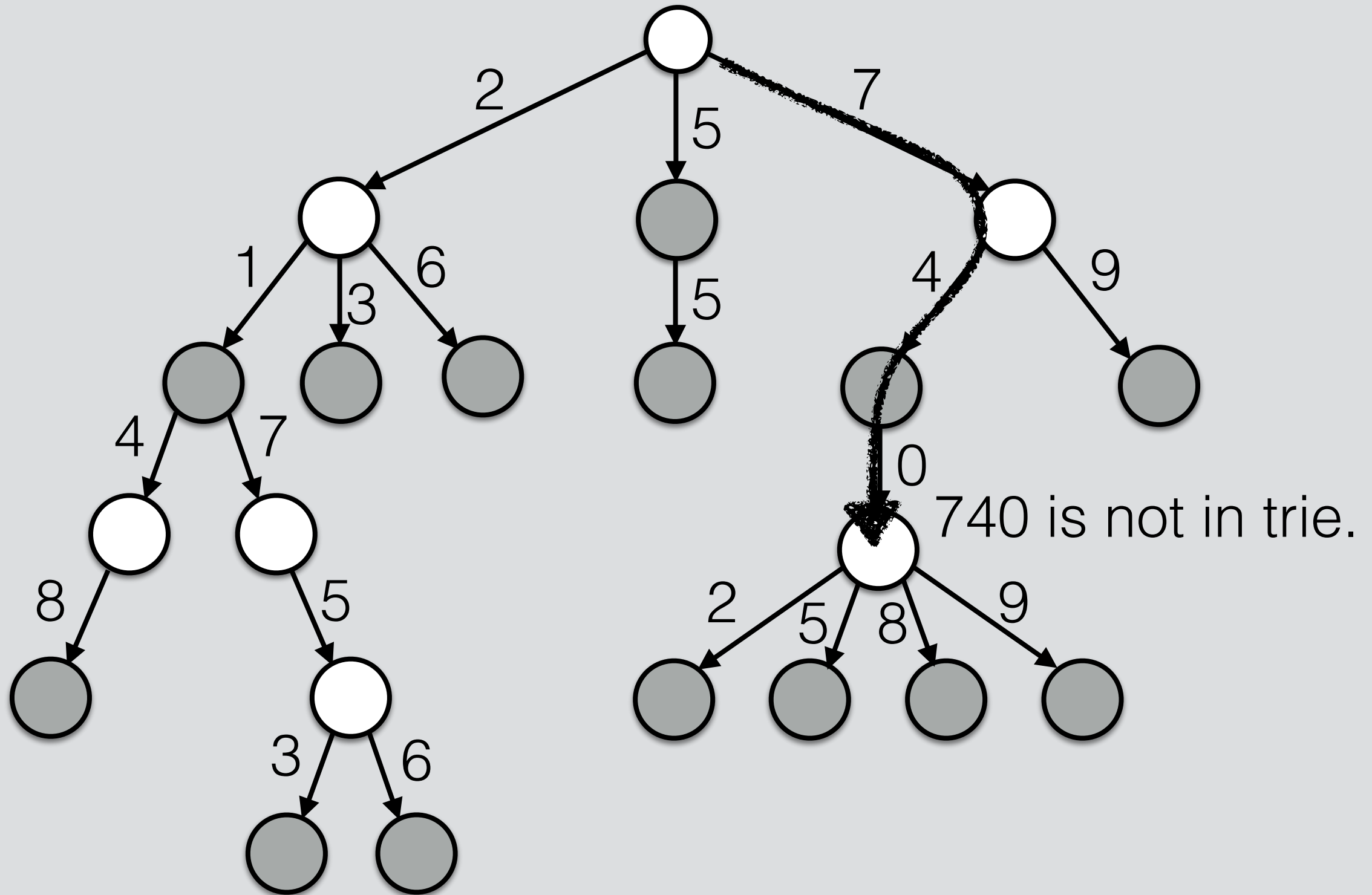
A trie of positive integers

10-ary tree



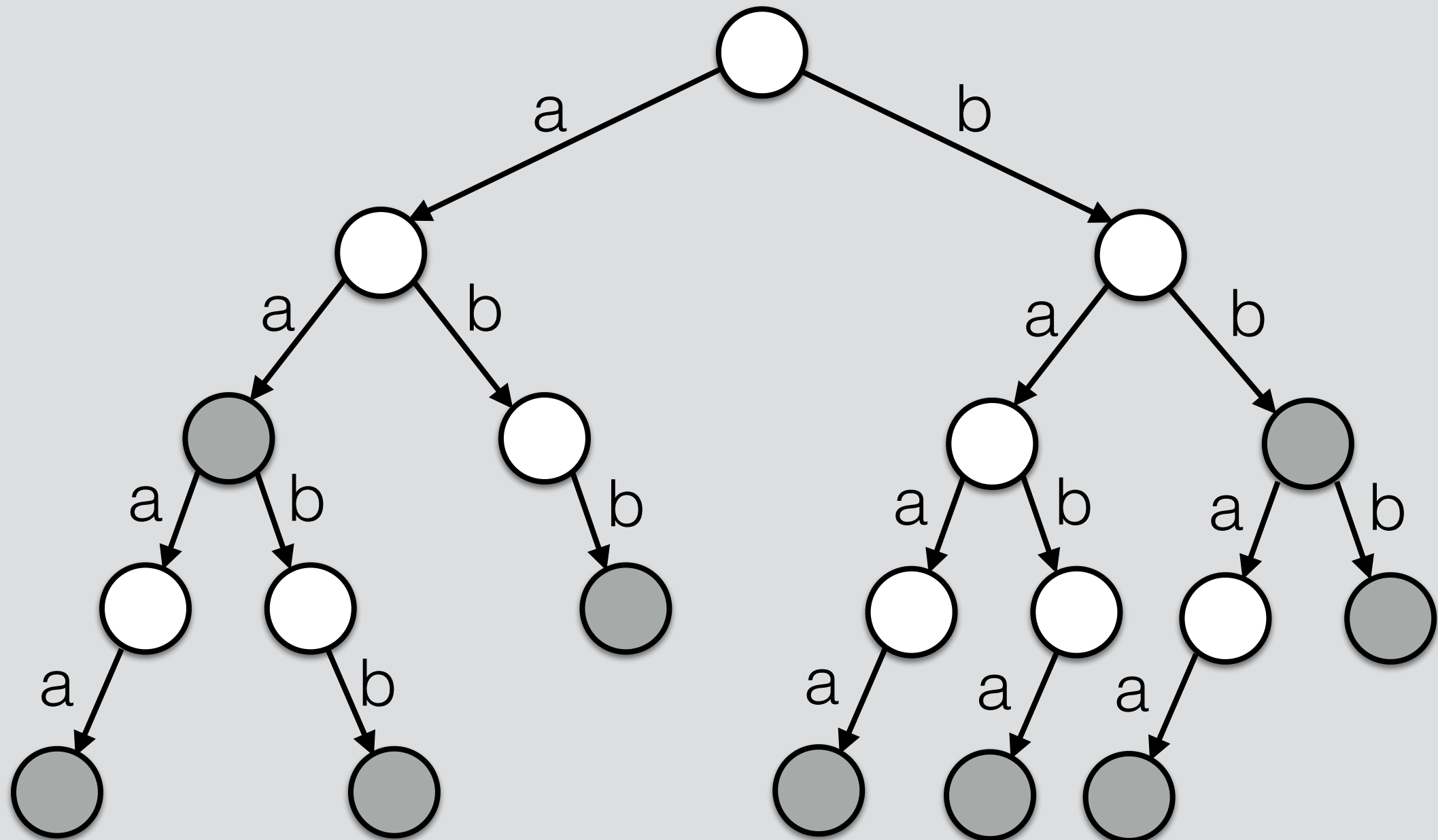
A trie of positive integers

10-ary tree

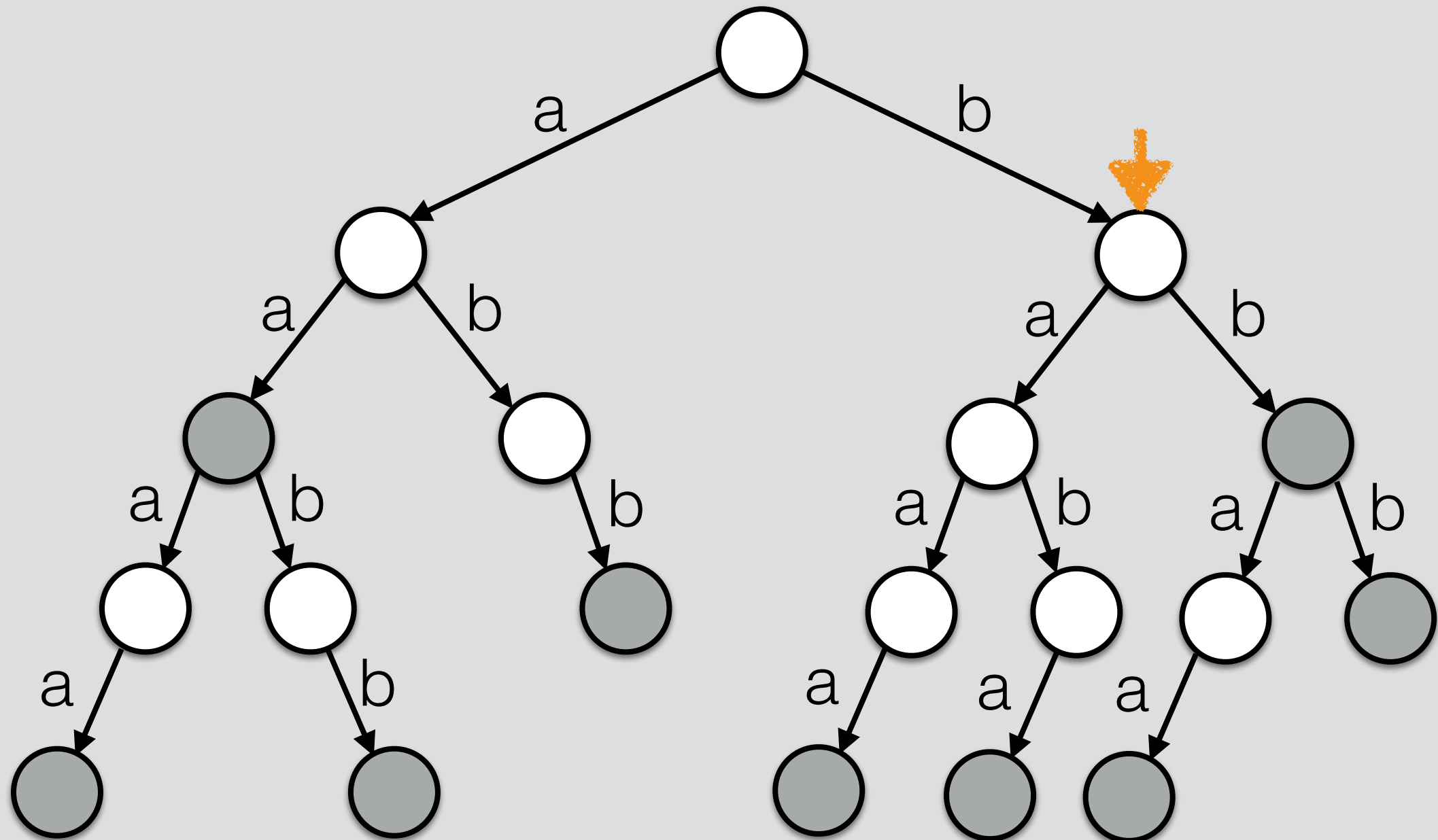


search

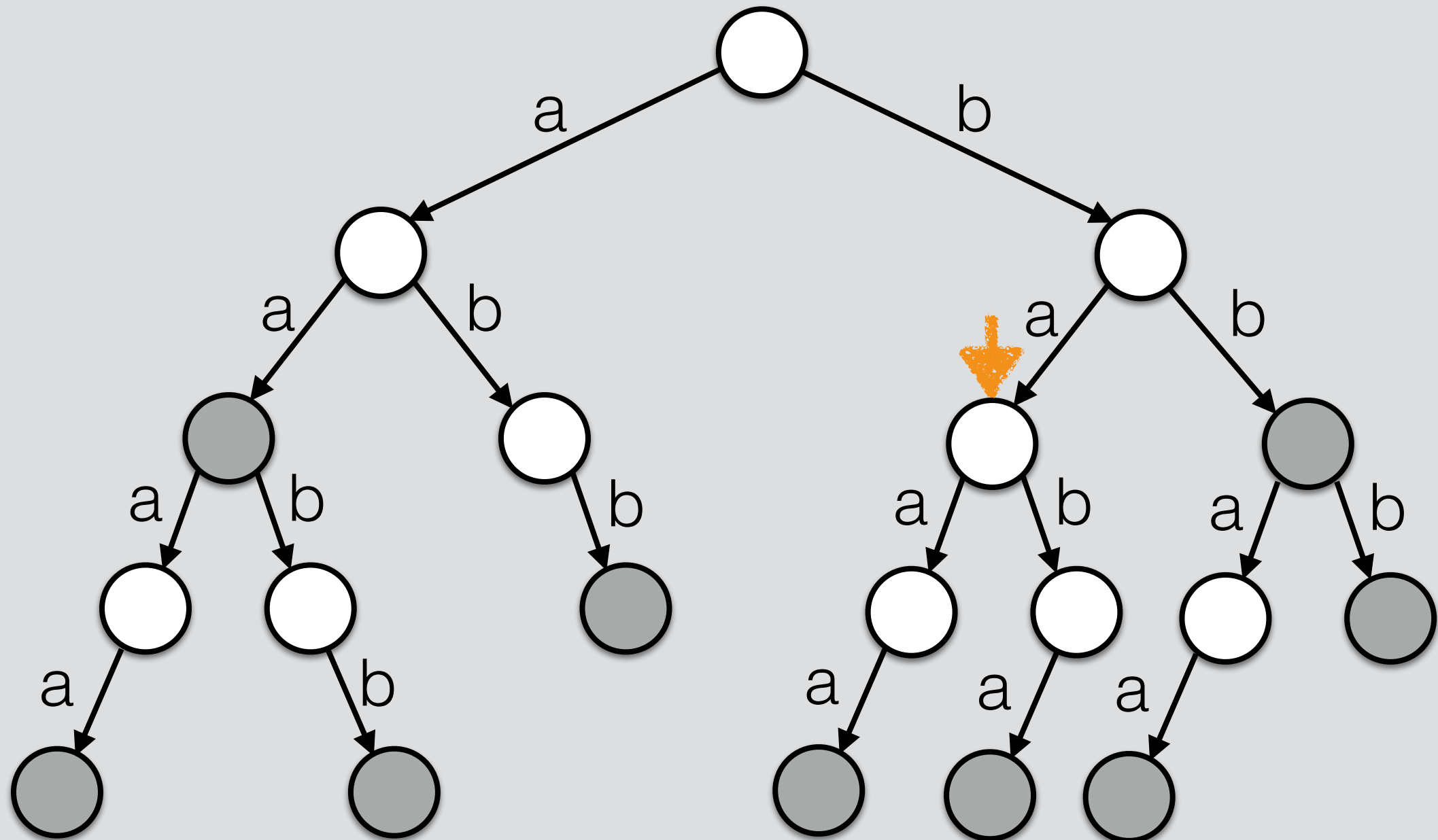
search("baba")



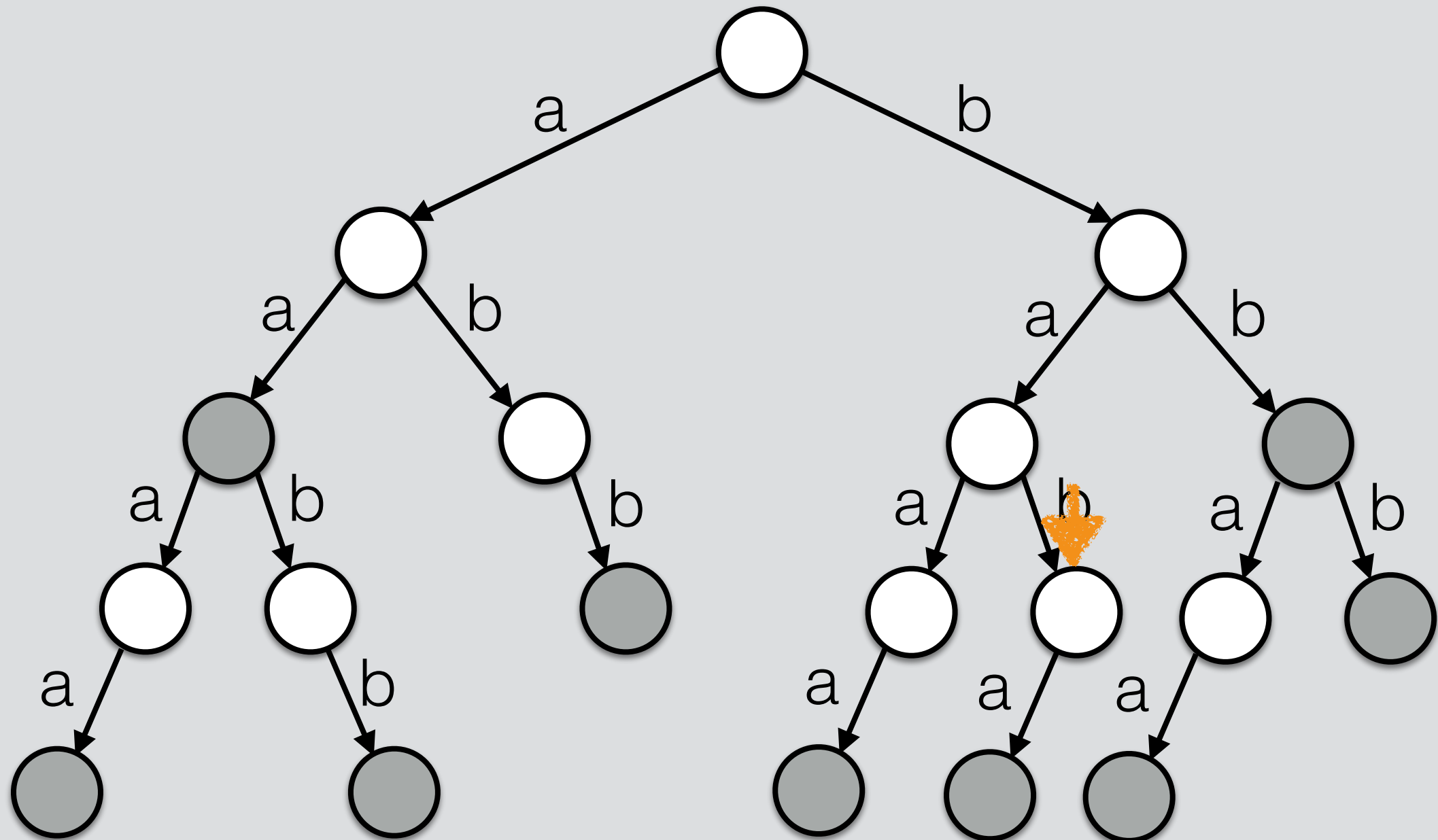
search("baba")



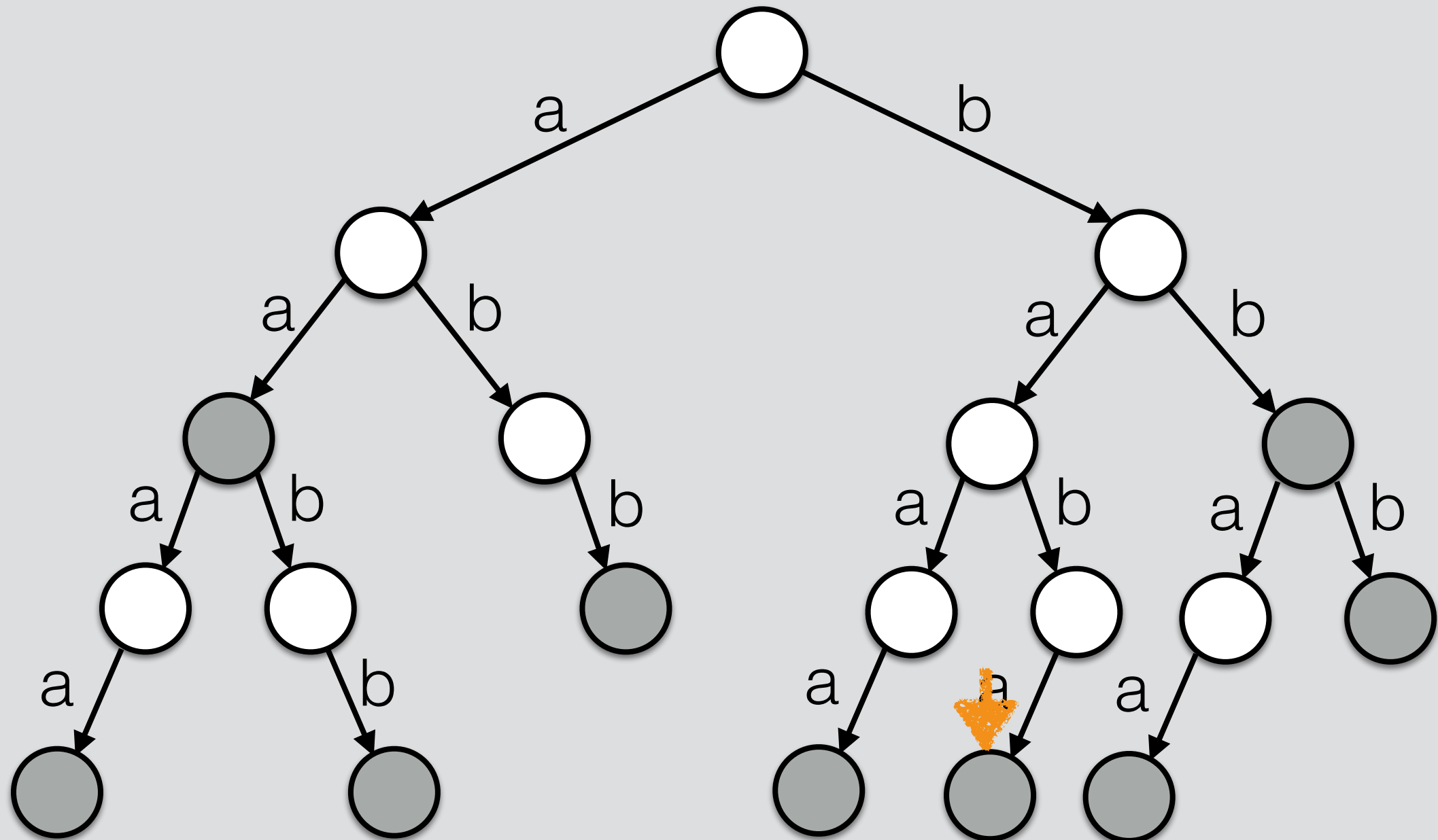
search("baba")



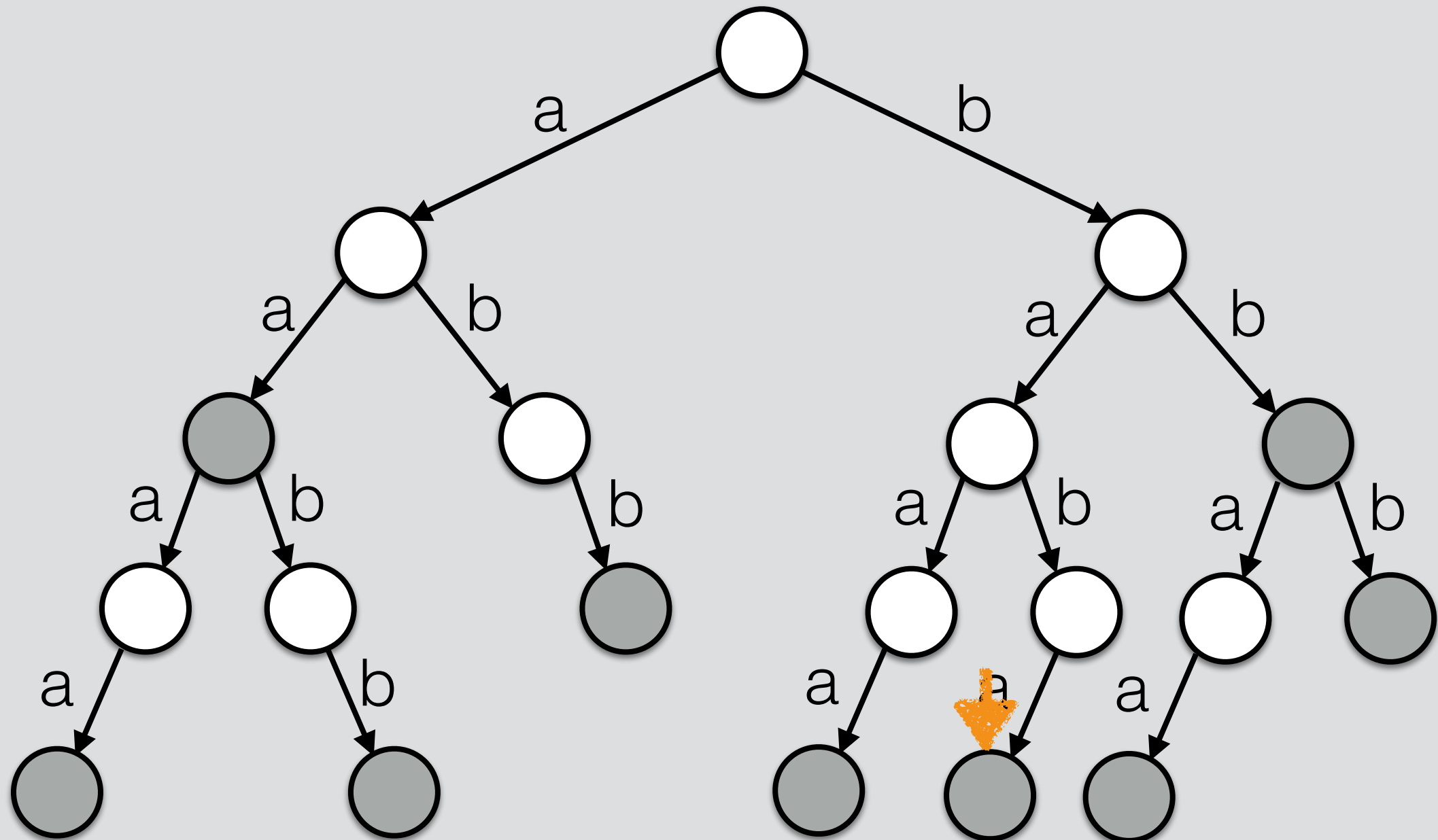
search("baba")



search("baba")

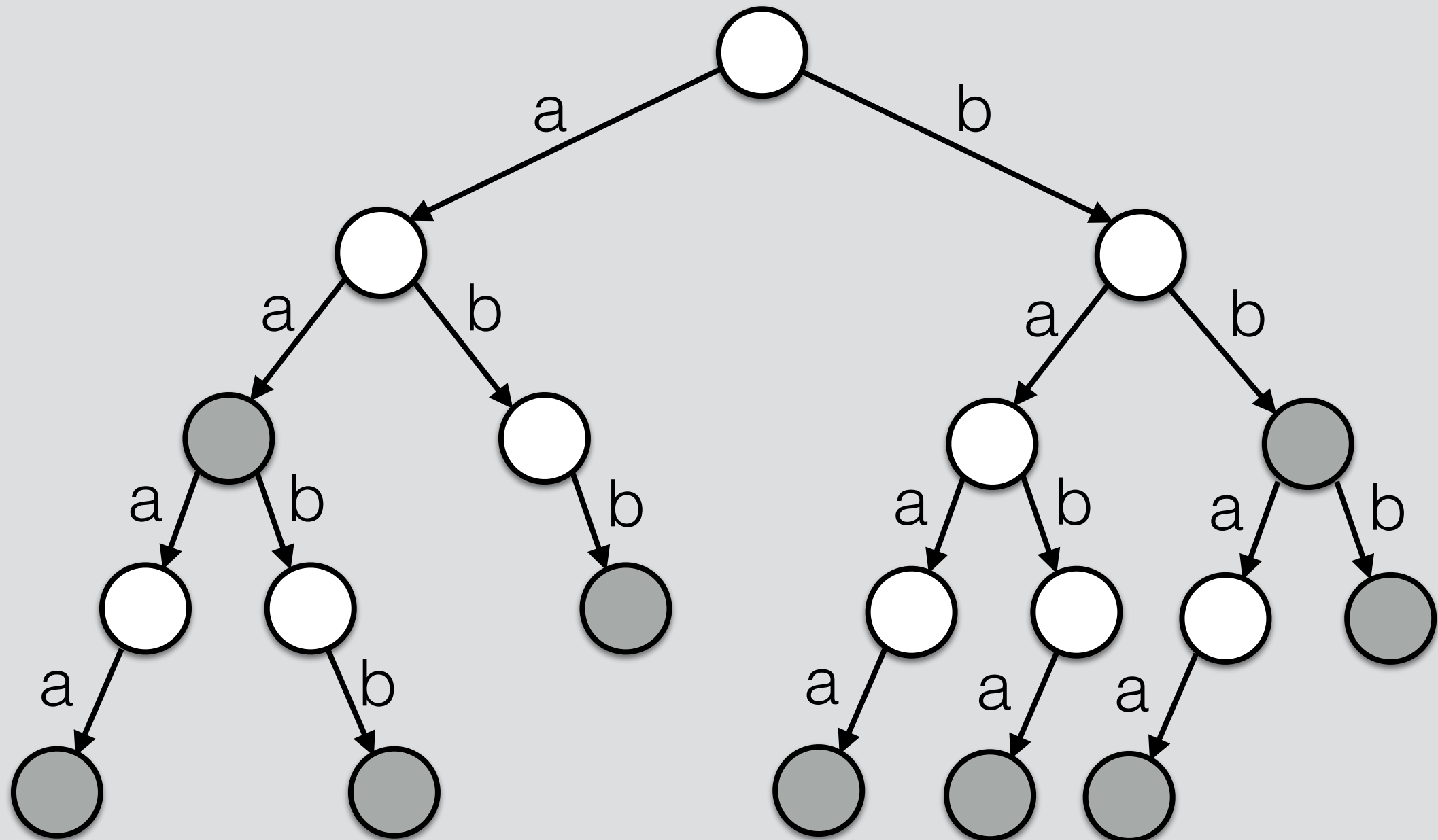


search("baba")

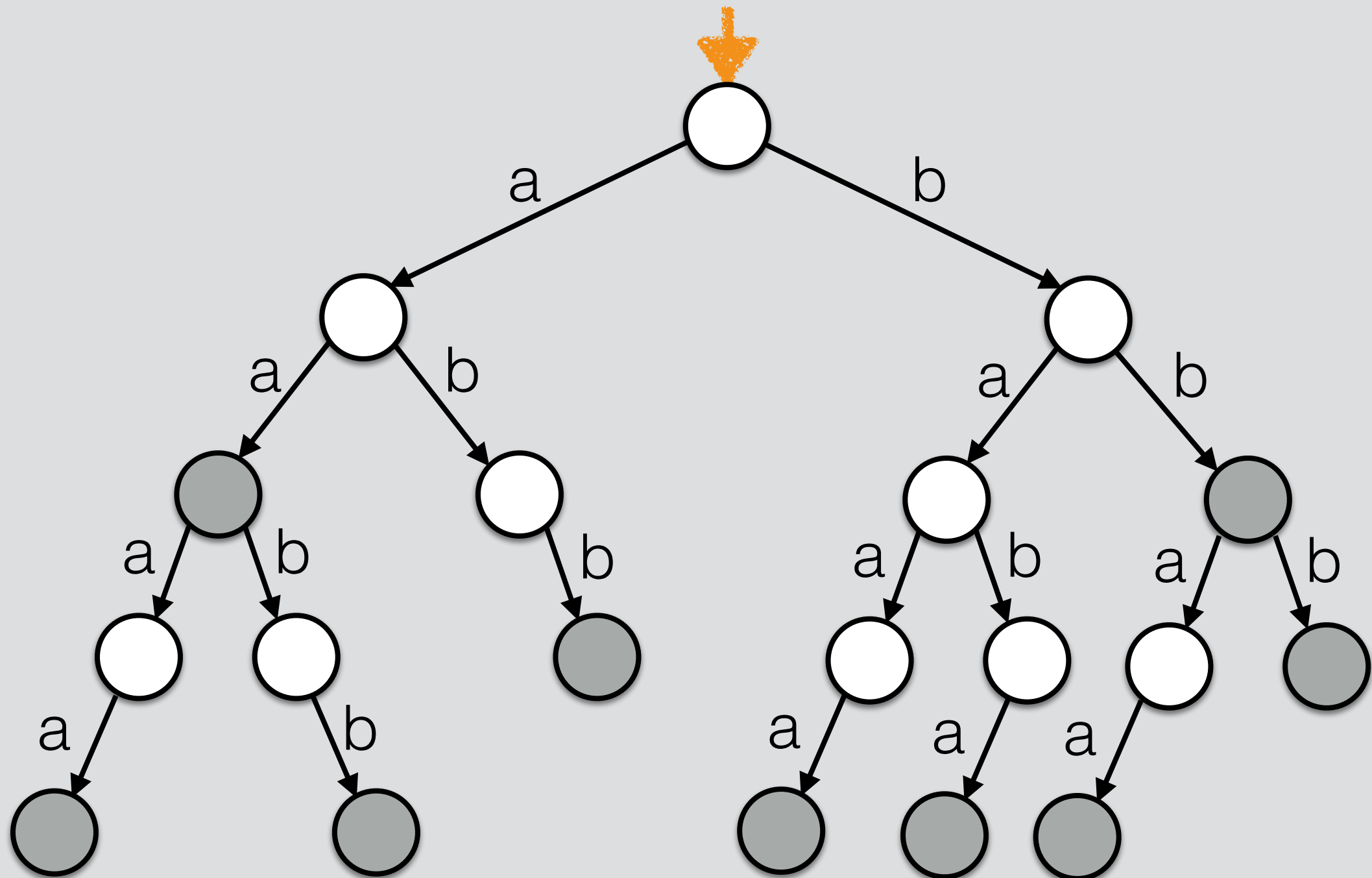


return true;

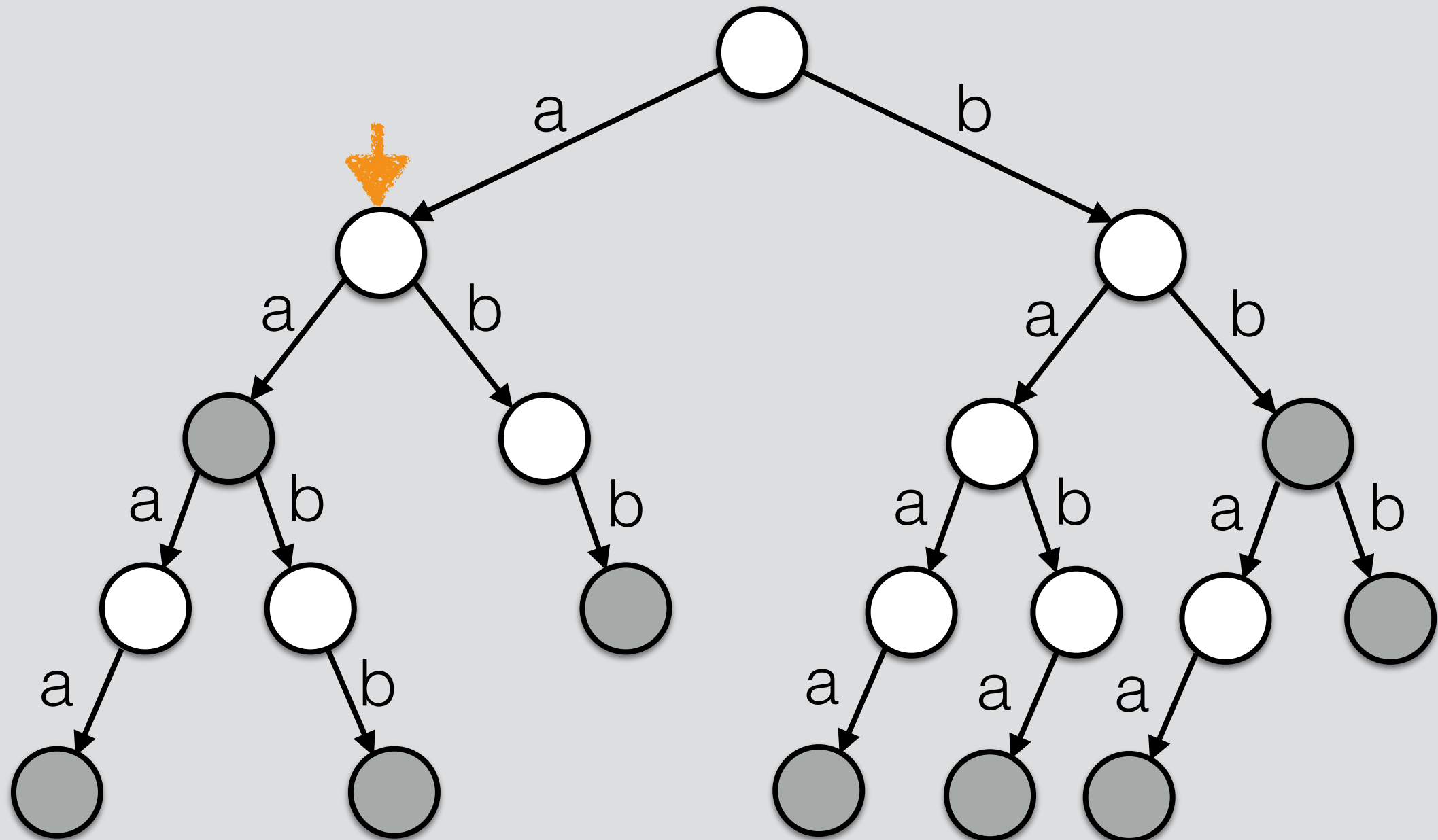
search("aaa")



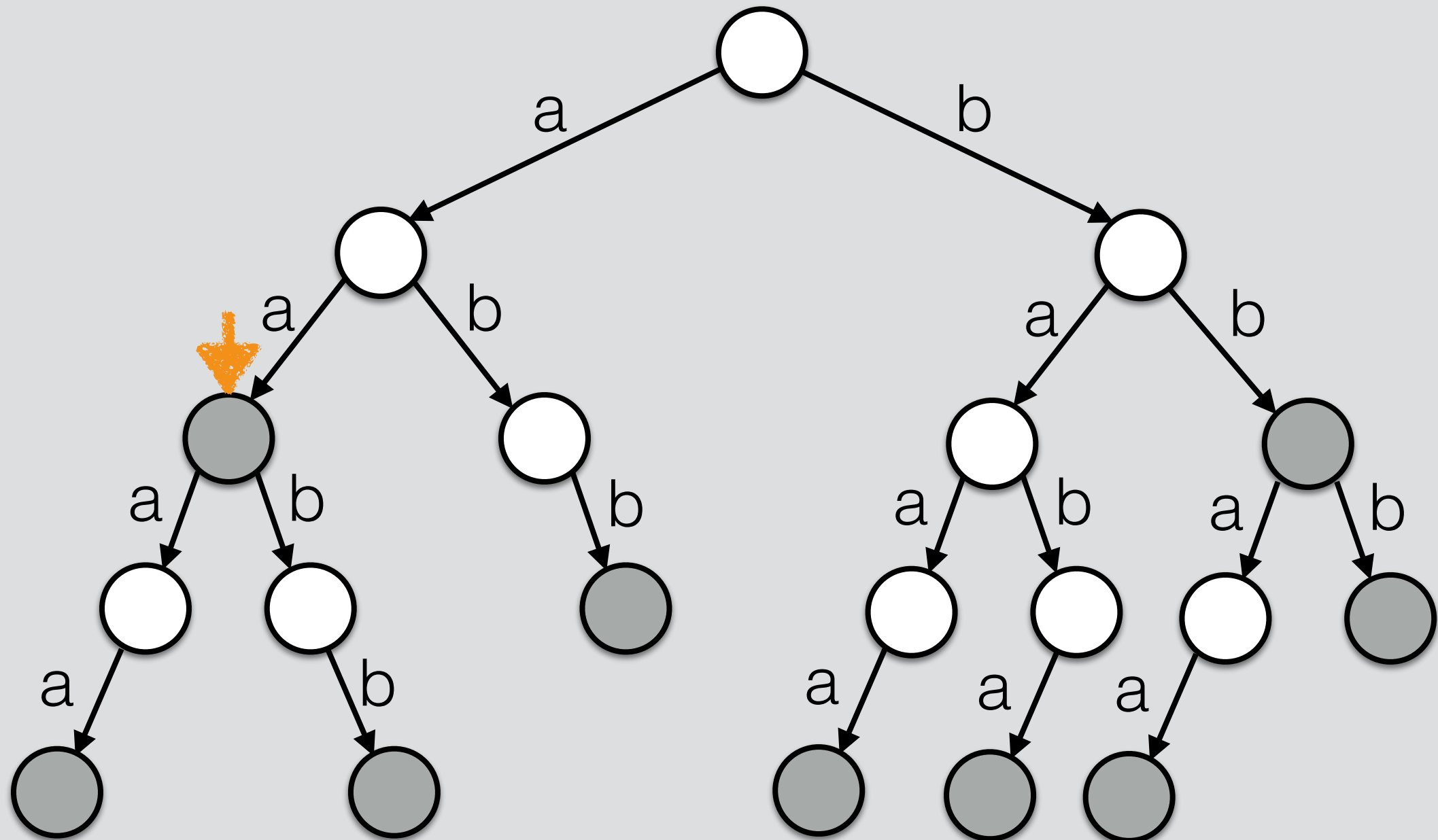
search("aaa")



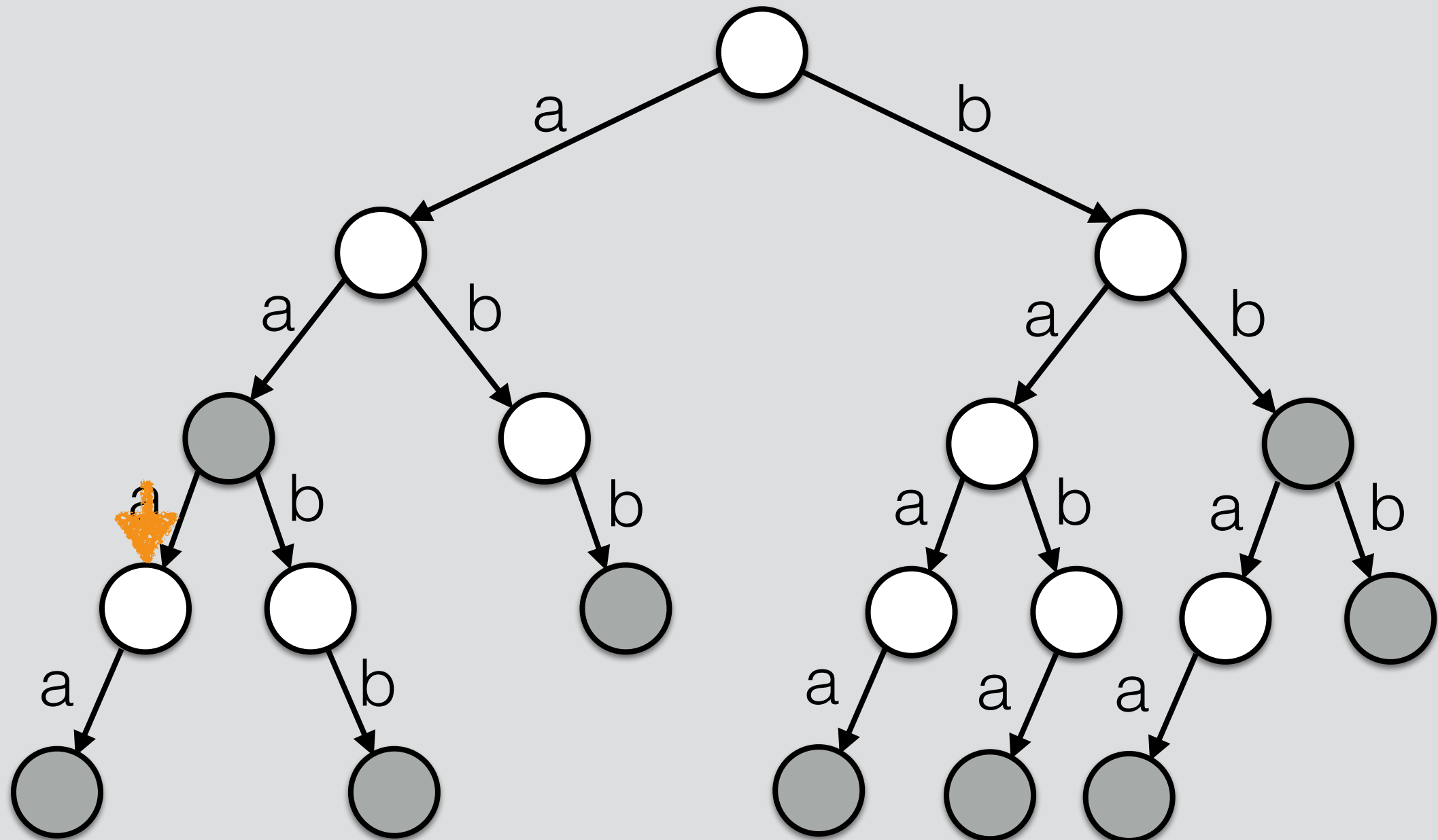
search("aaa")



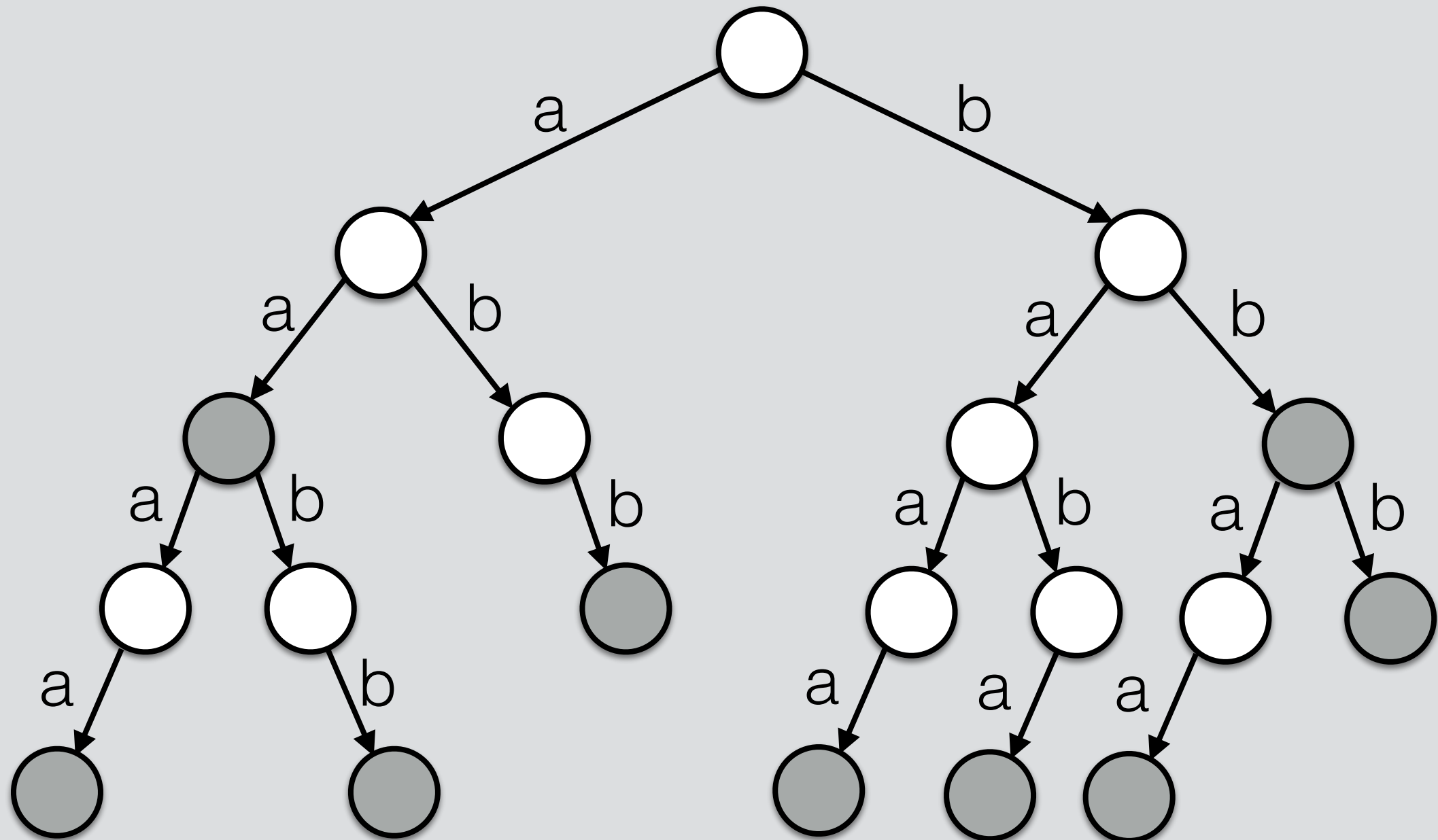
search("aaa")



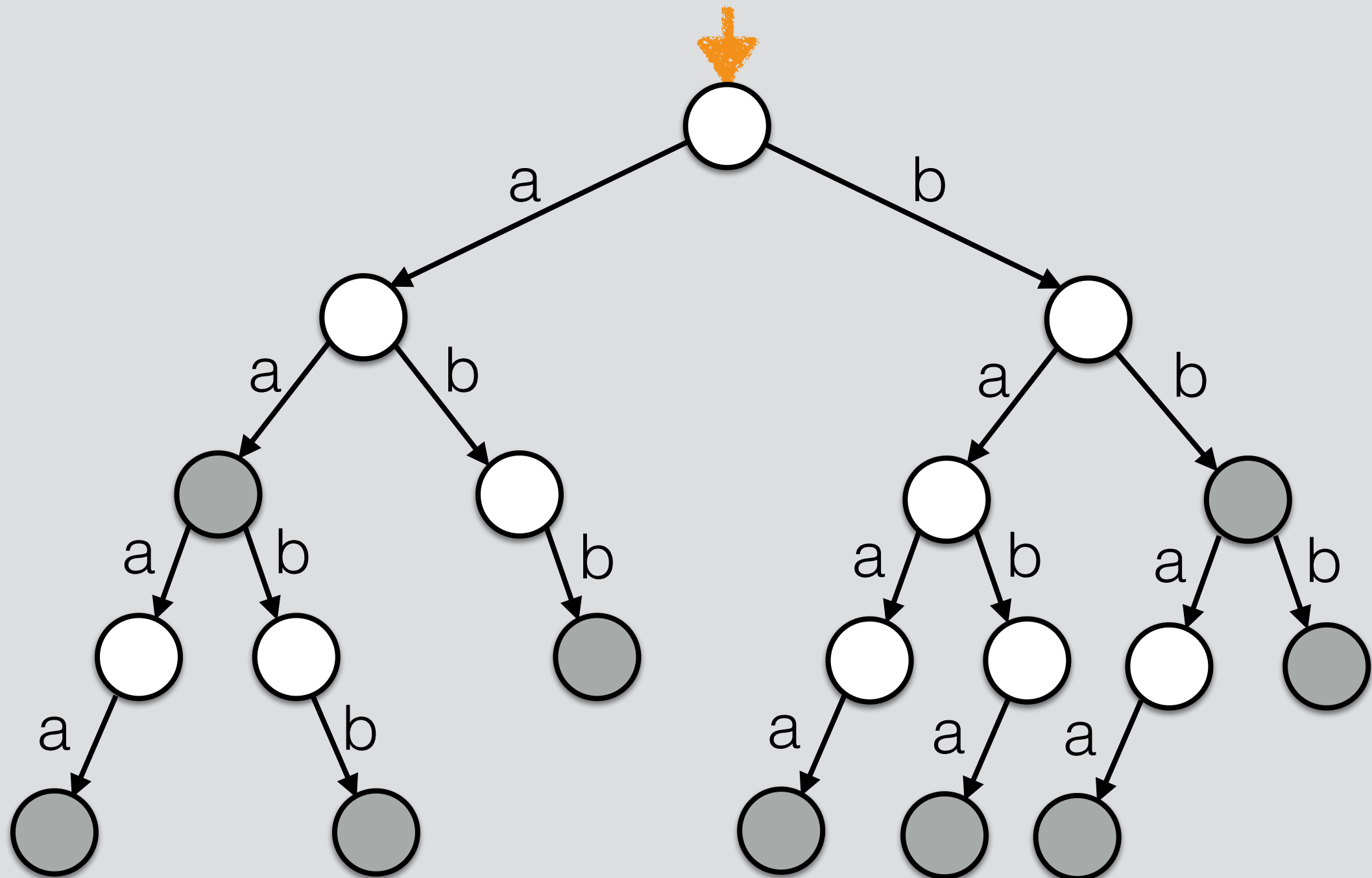
search("aaa")



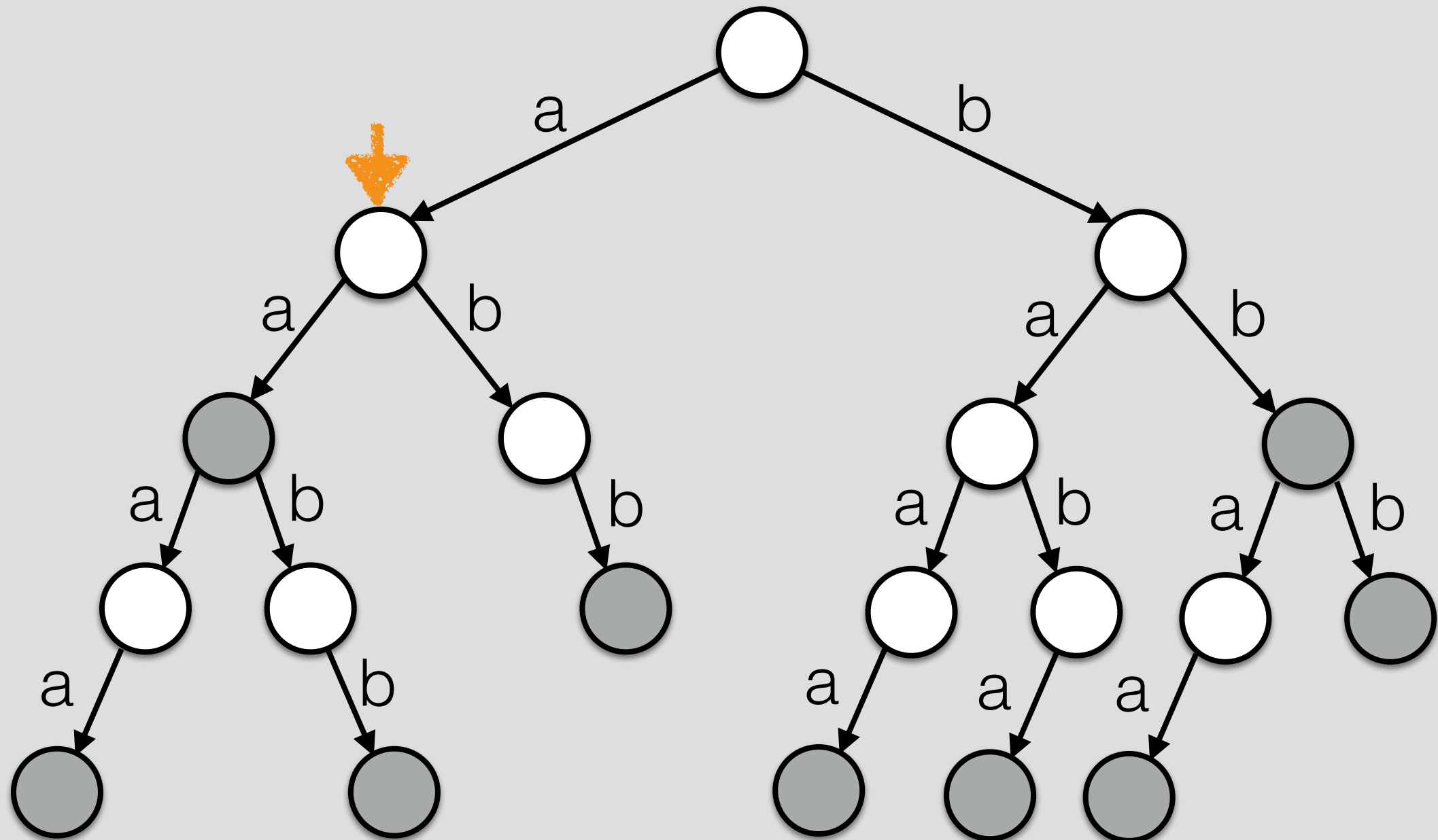
search("abba")



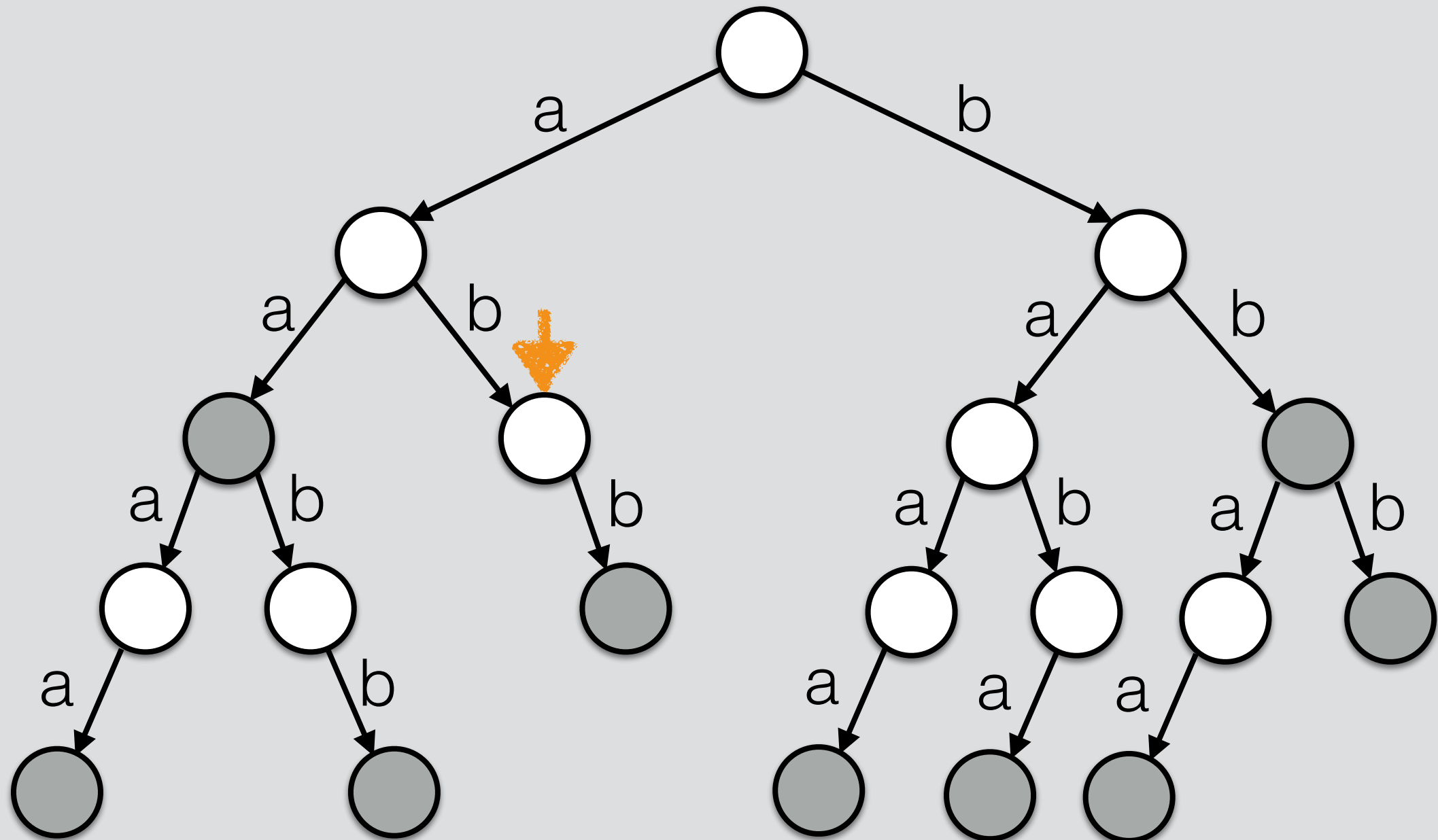
search("abba")



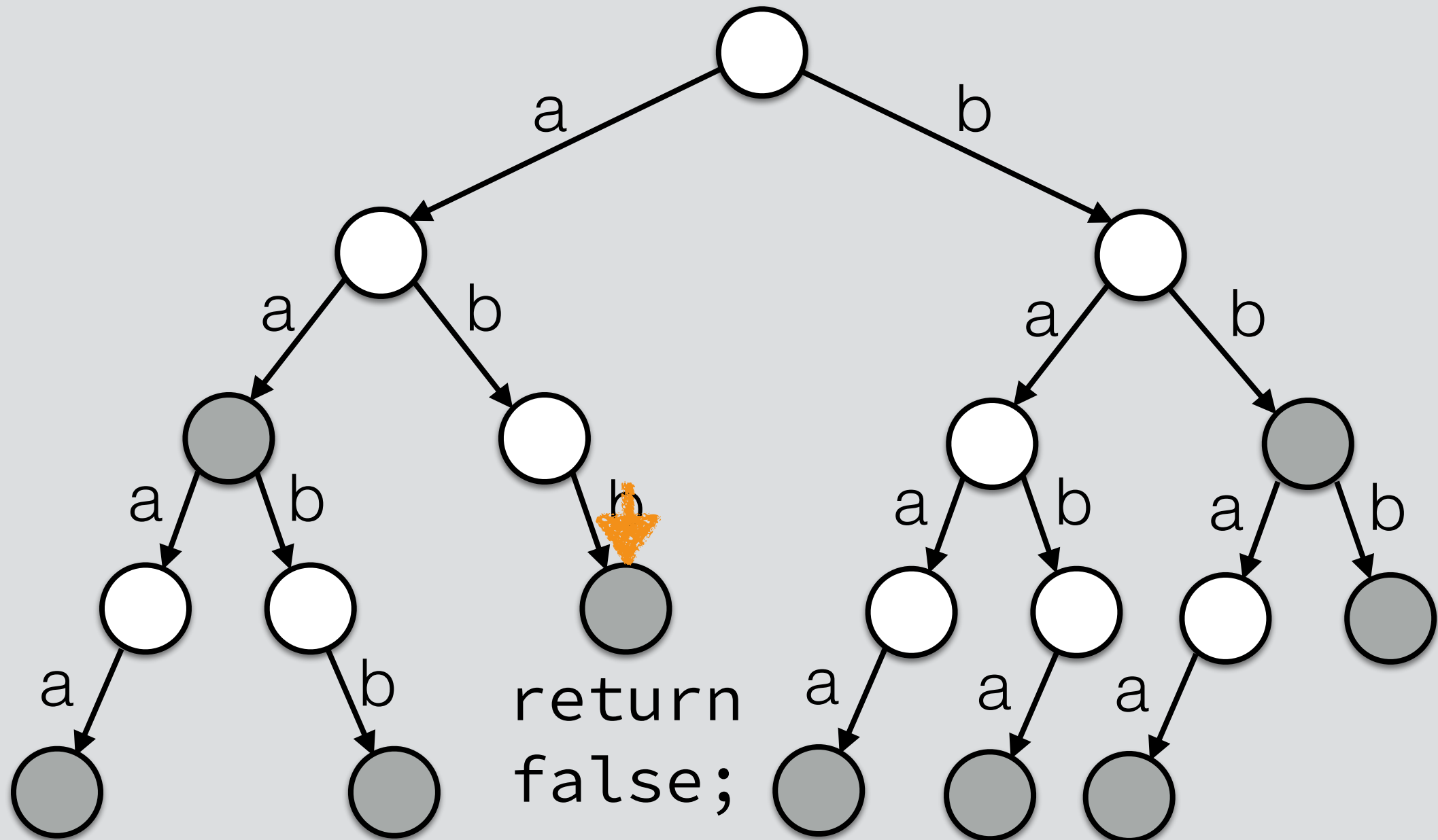
search("abba")



search("abba")

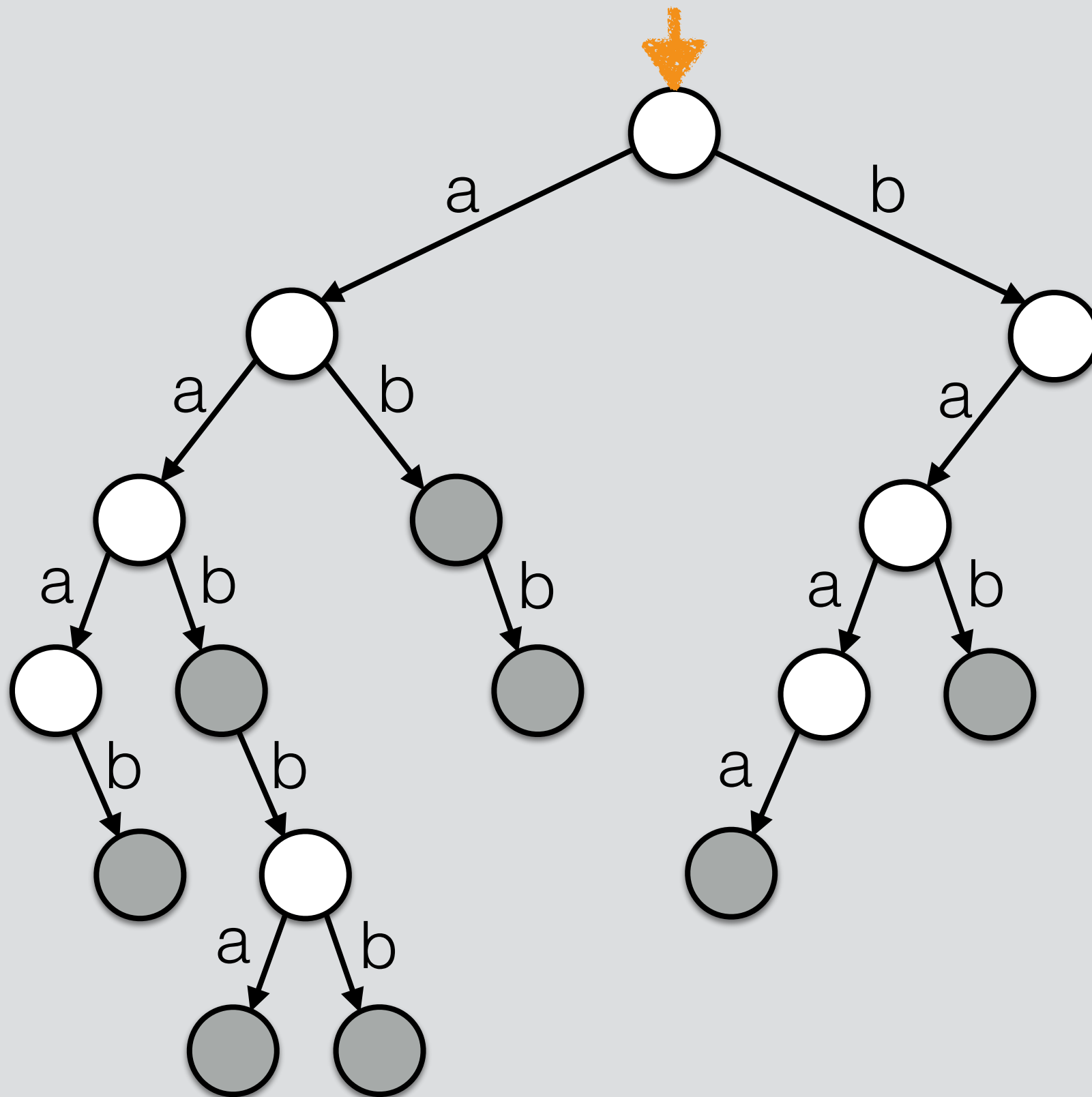


search("abba")

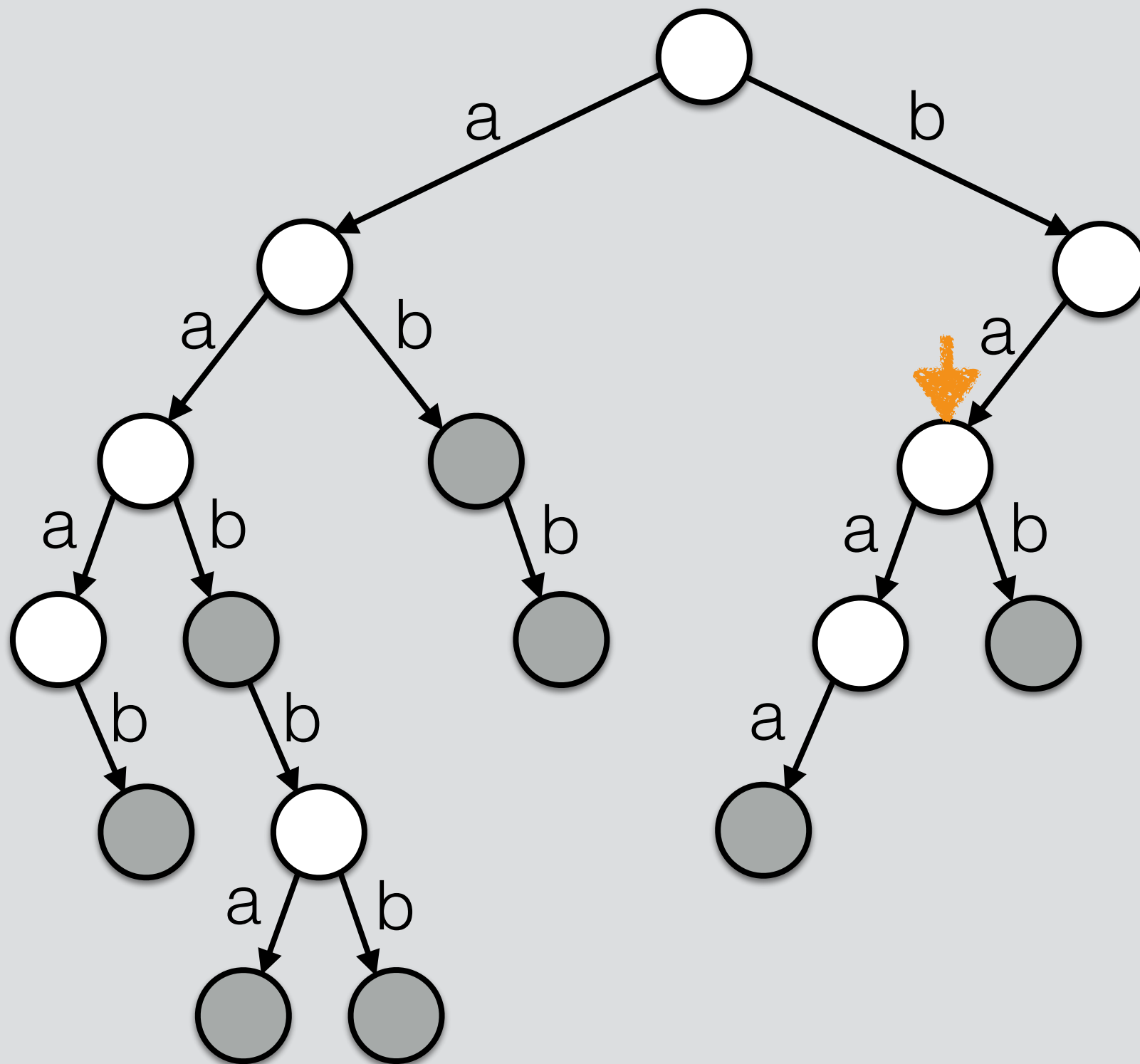


insert

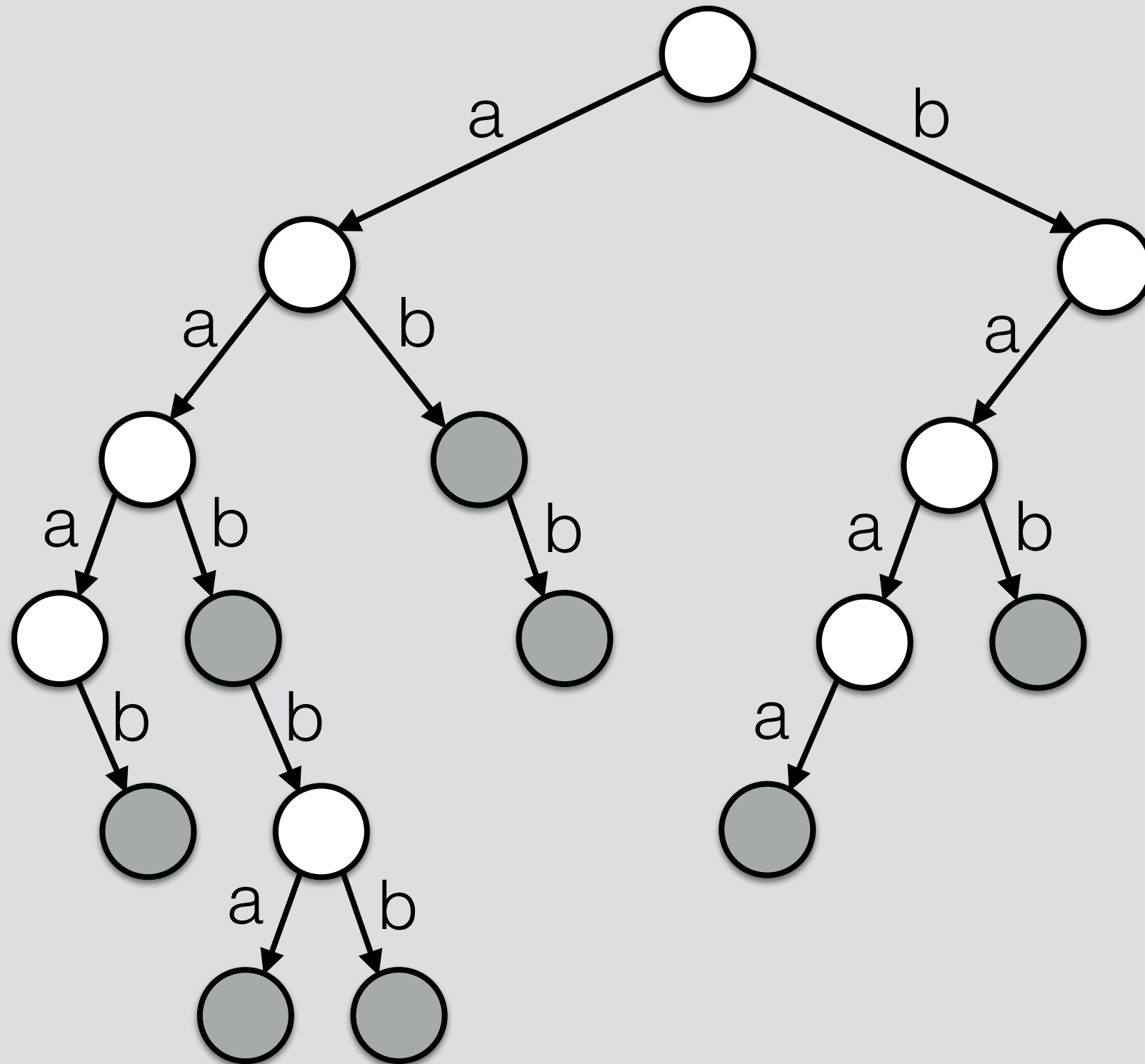
insert("ba")



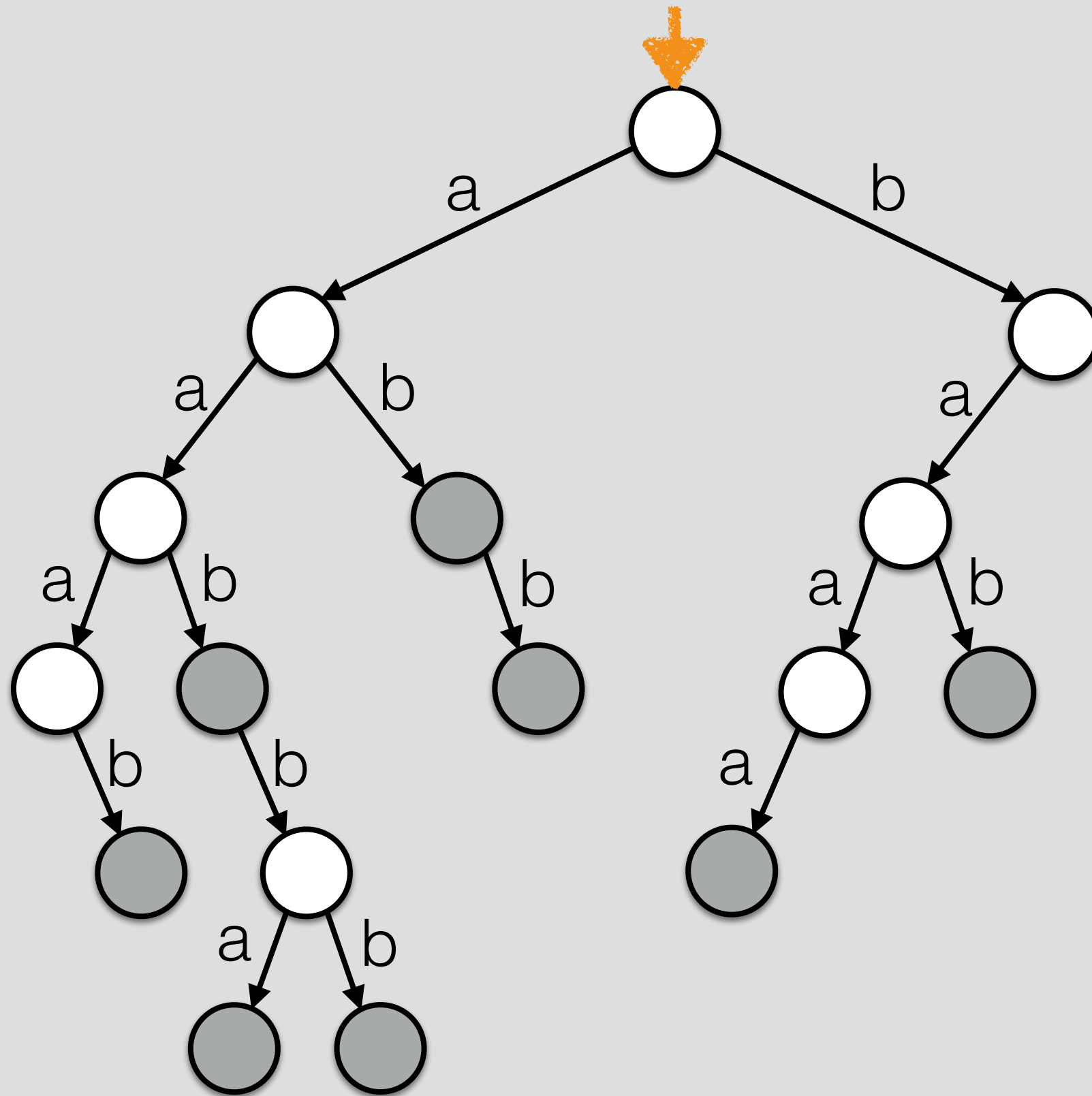
insert("ba")



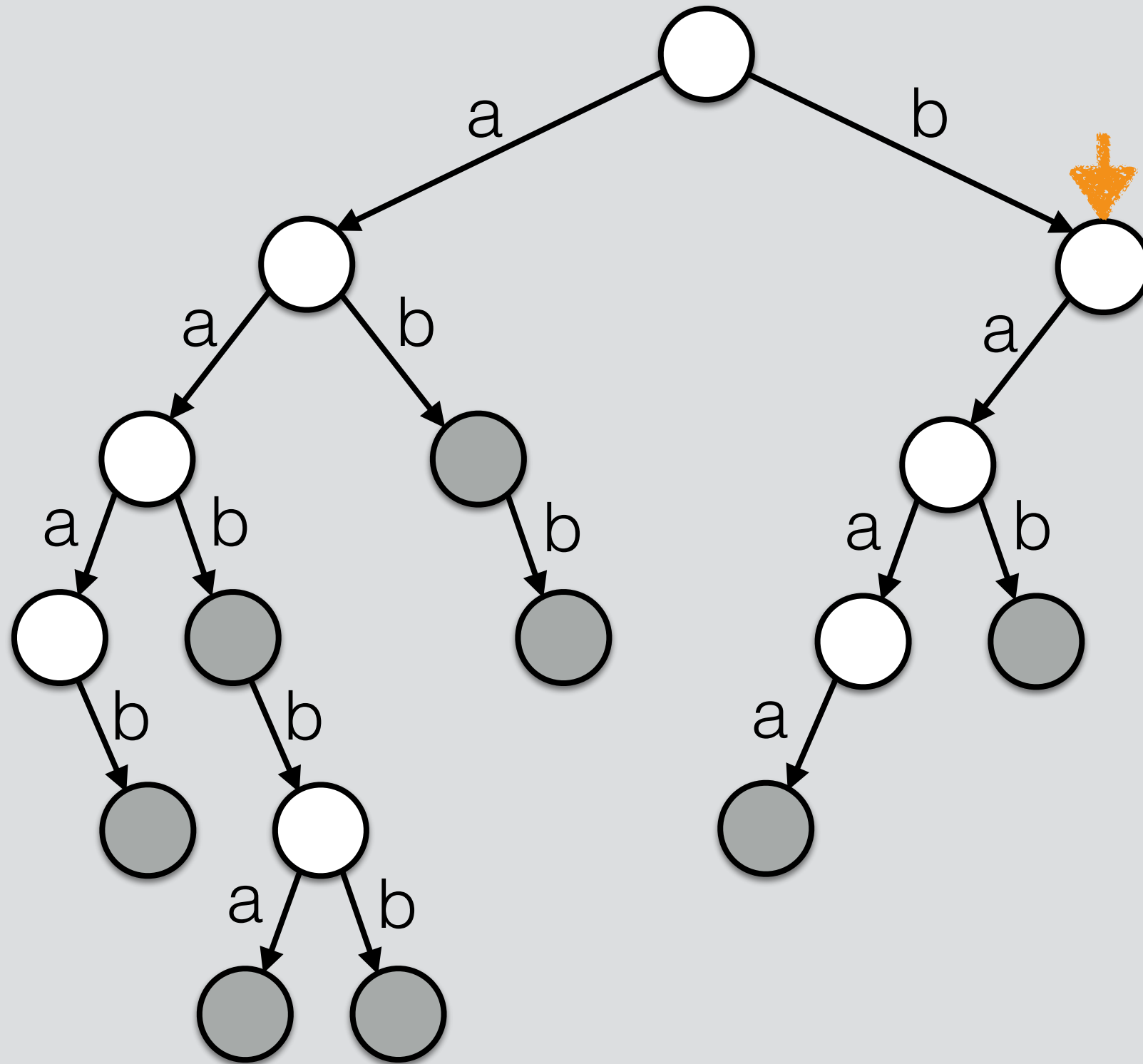
insert("bbaa")



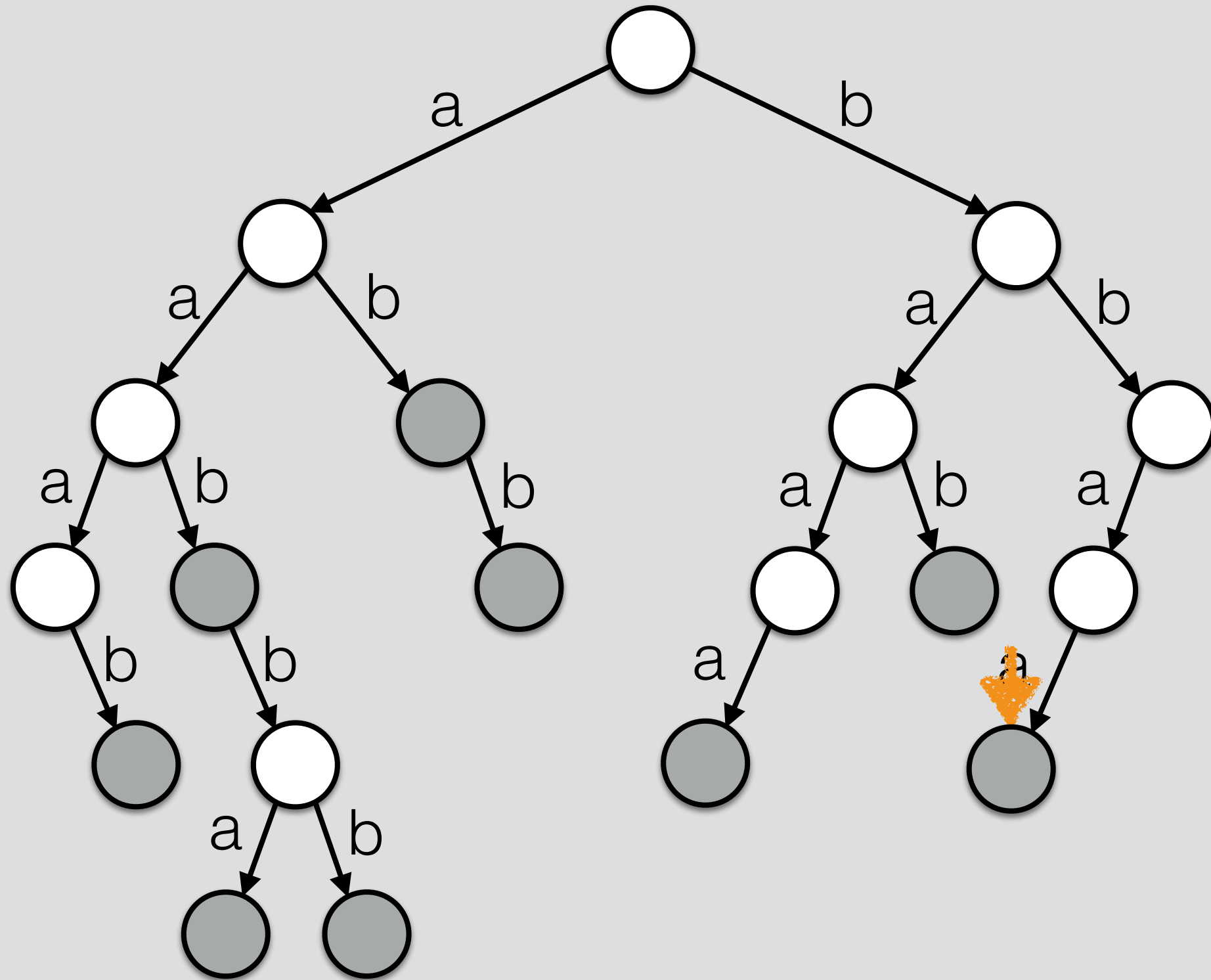
insert("bbaa")



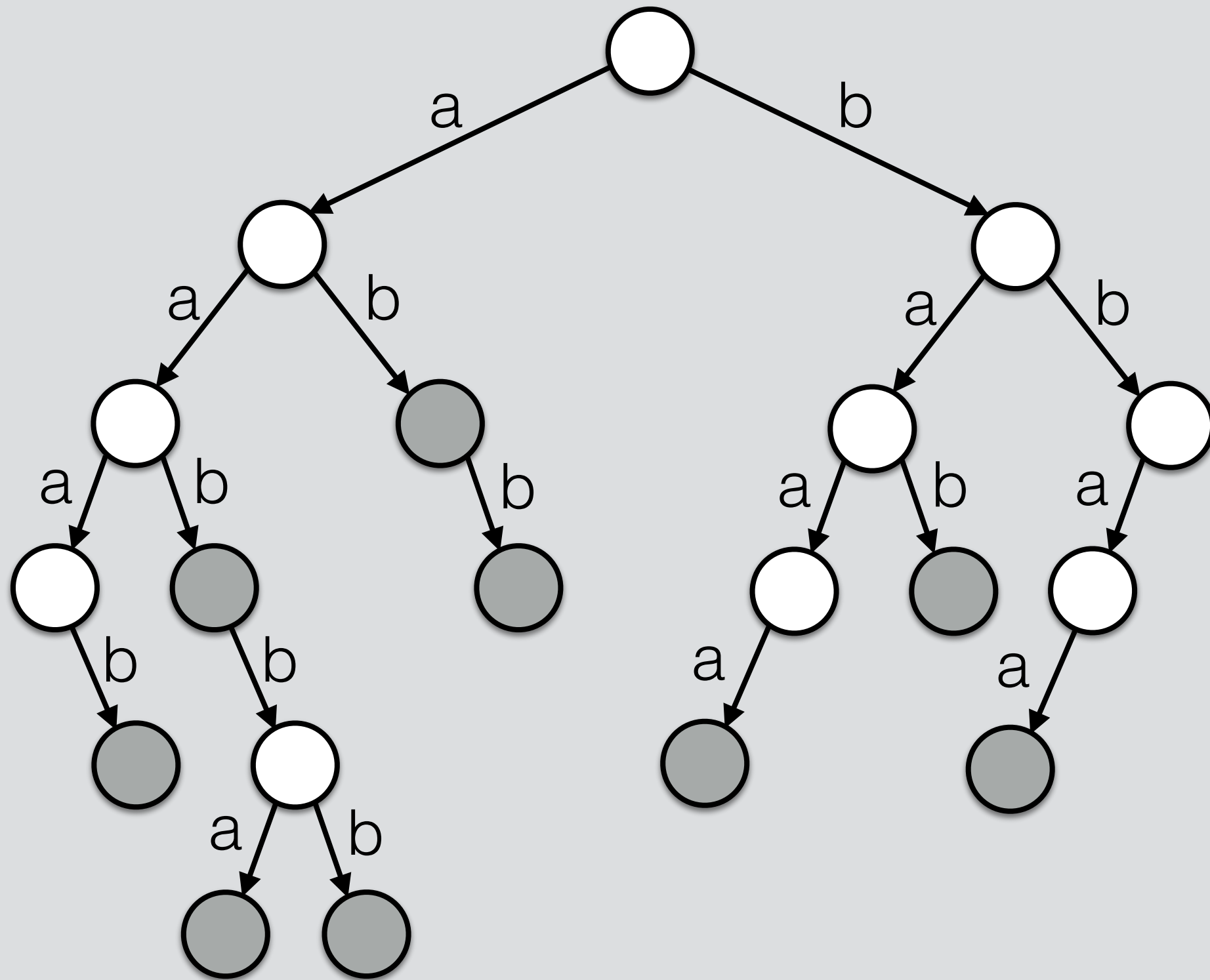
insert("bbaa")



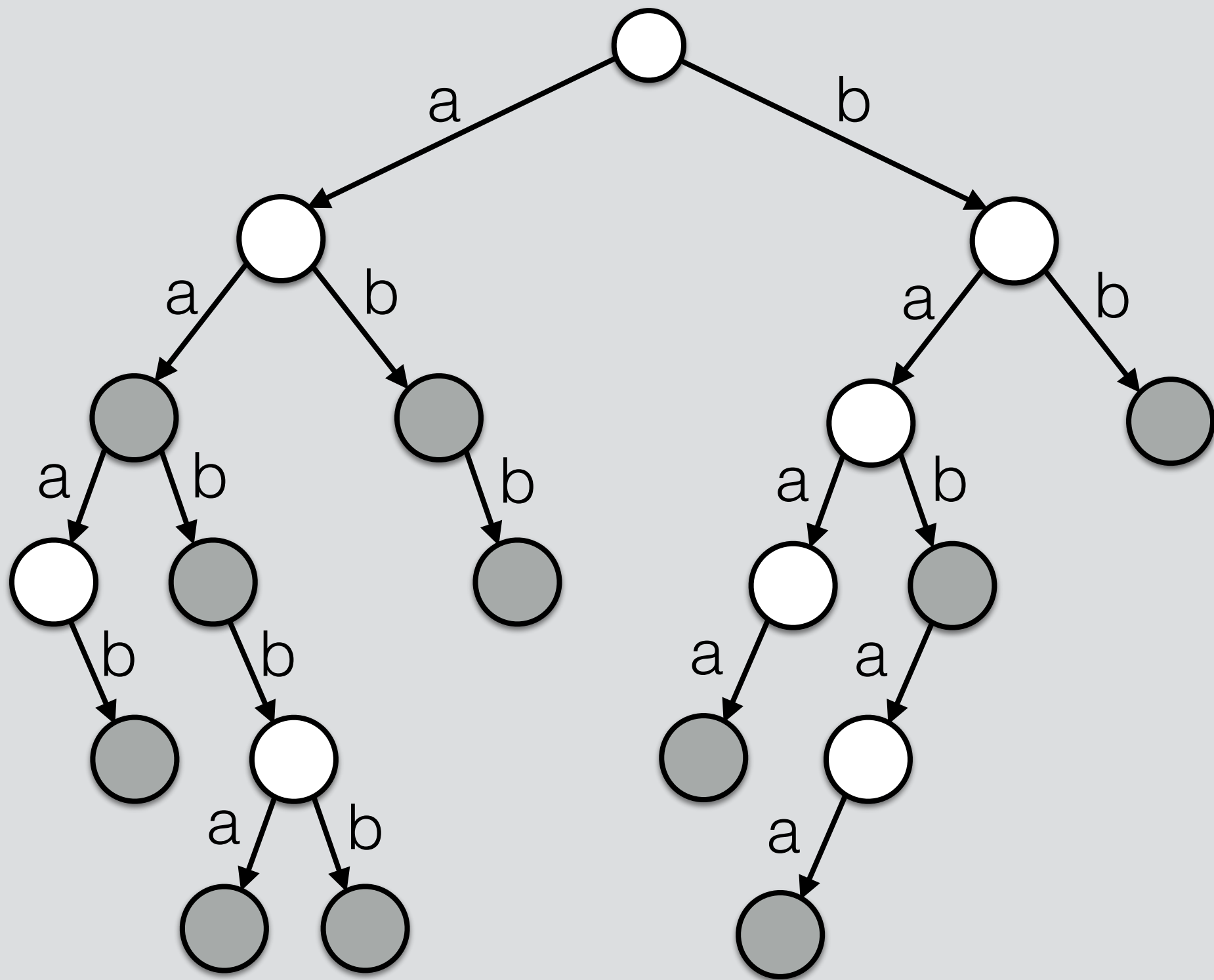
insert("bbaa")



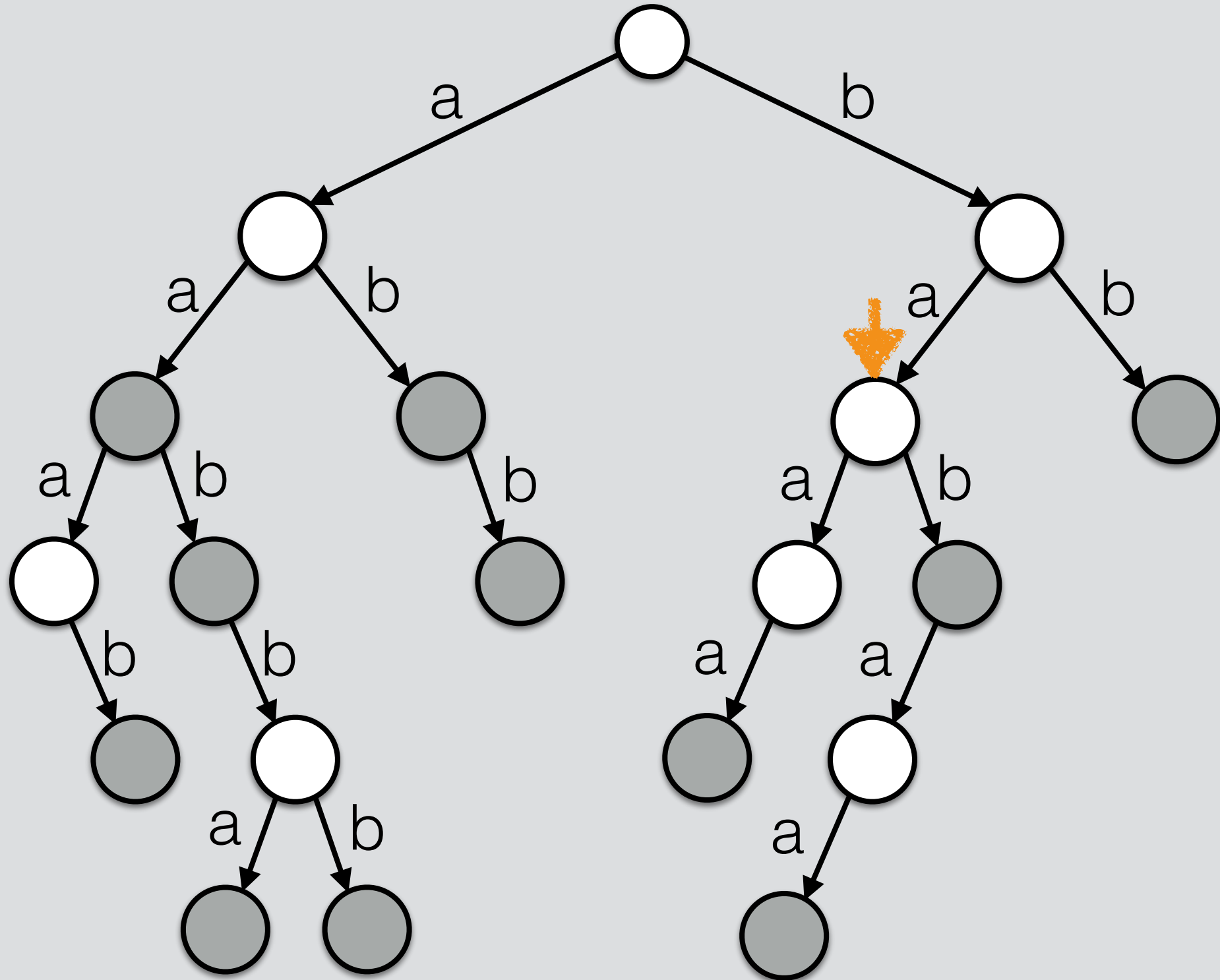
insert("bbaa")



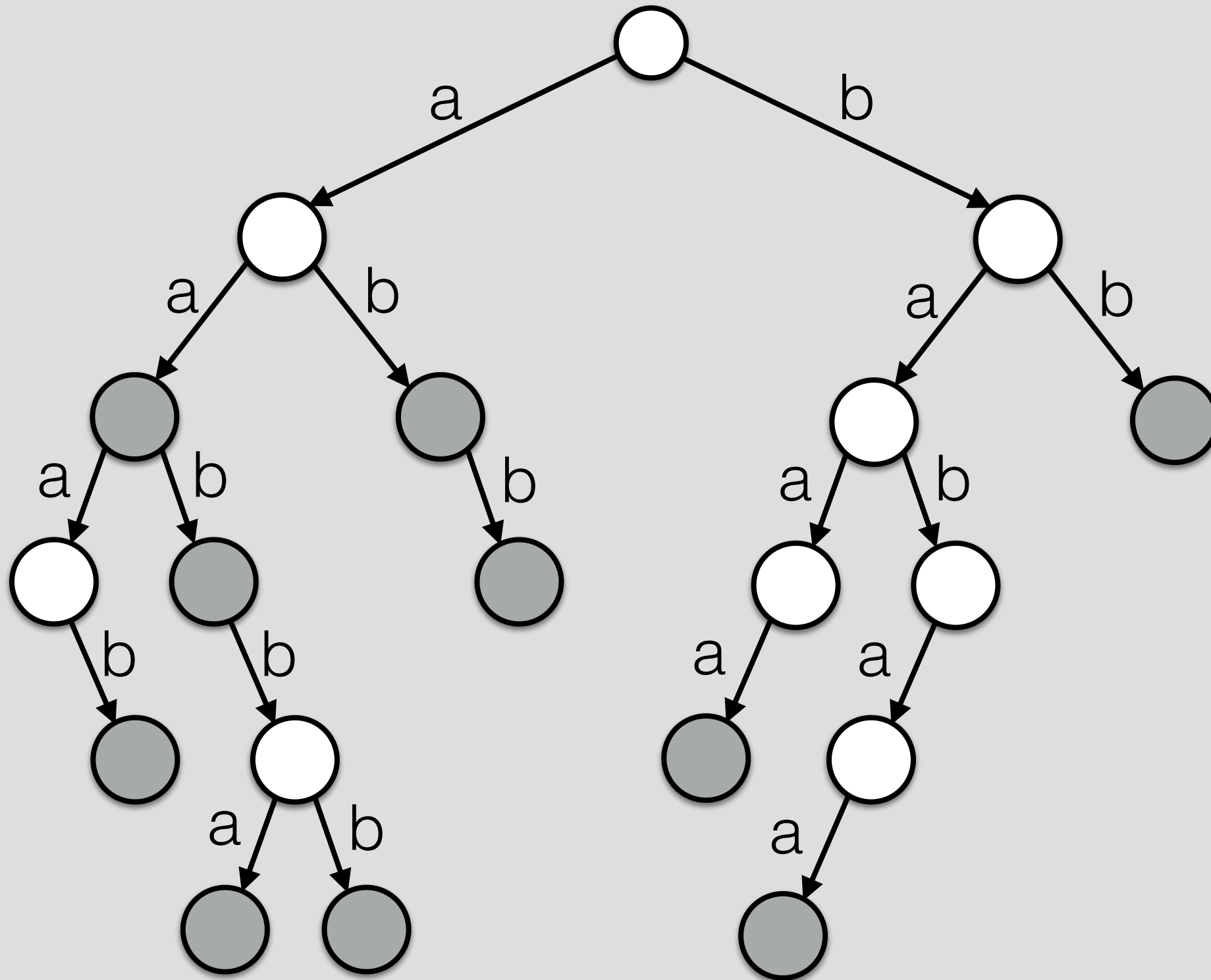
erase

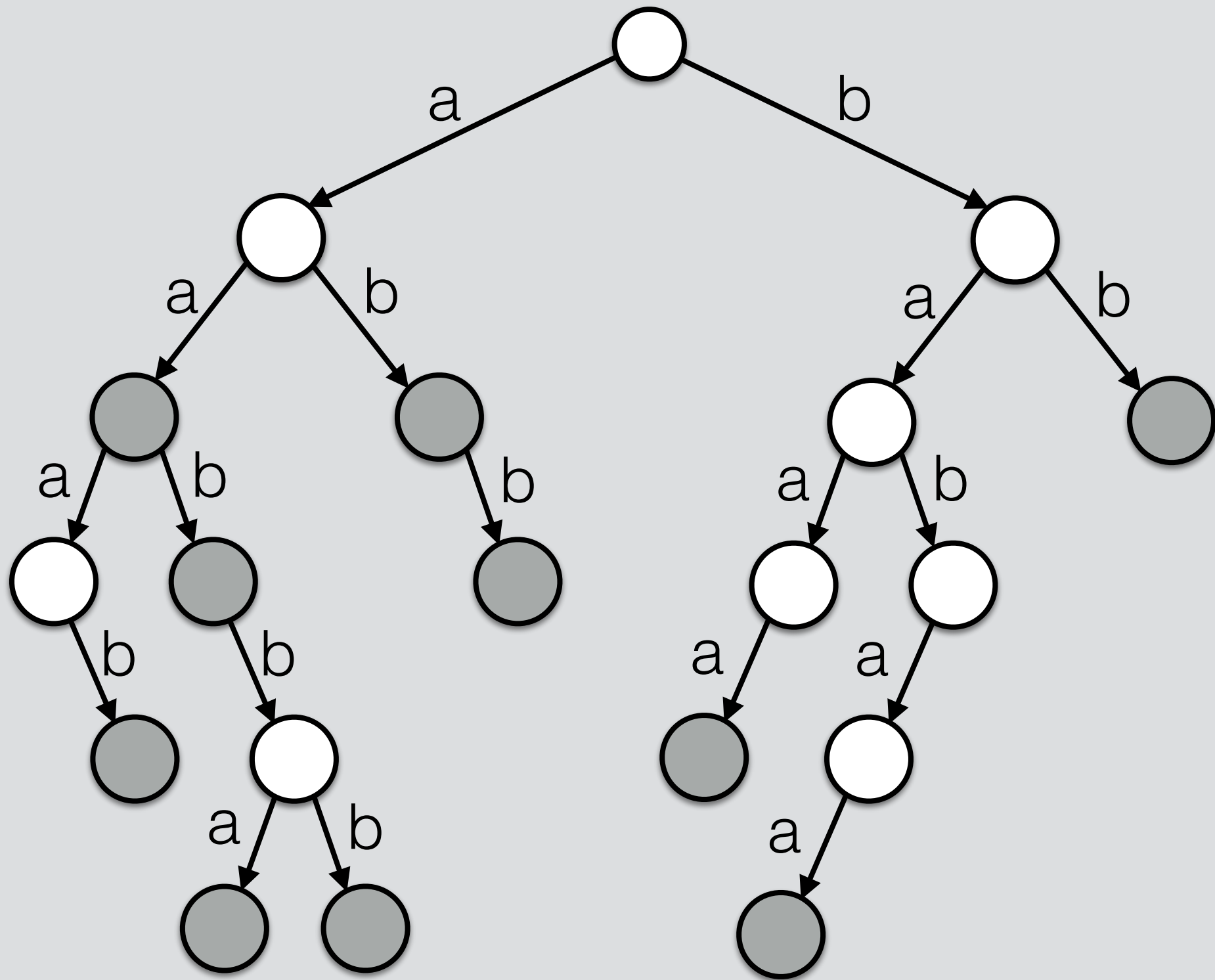


erase("bab")

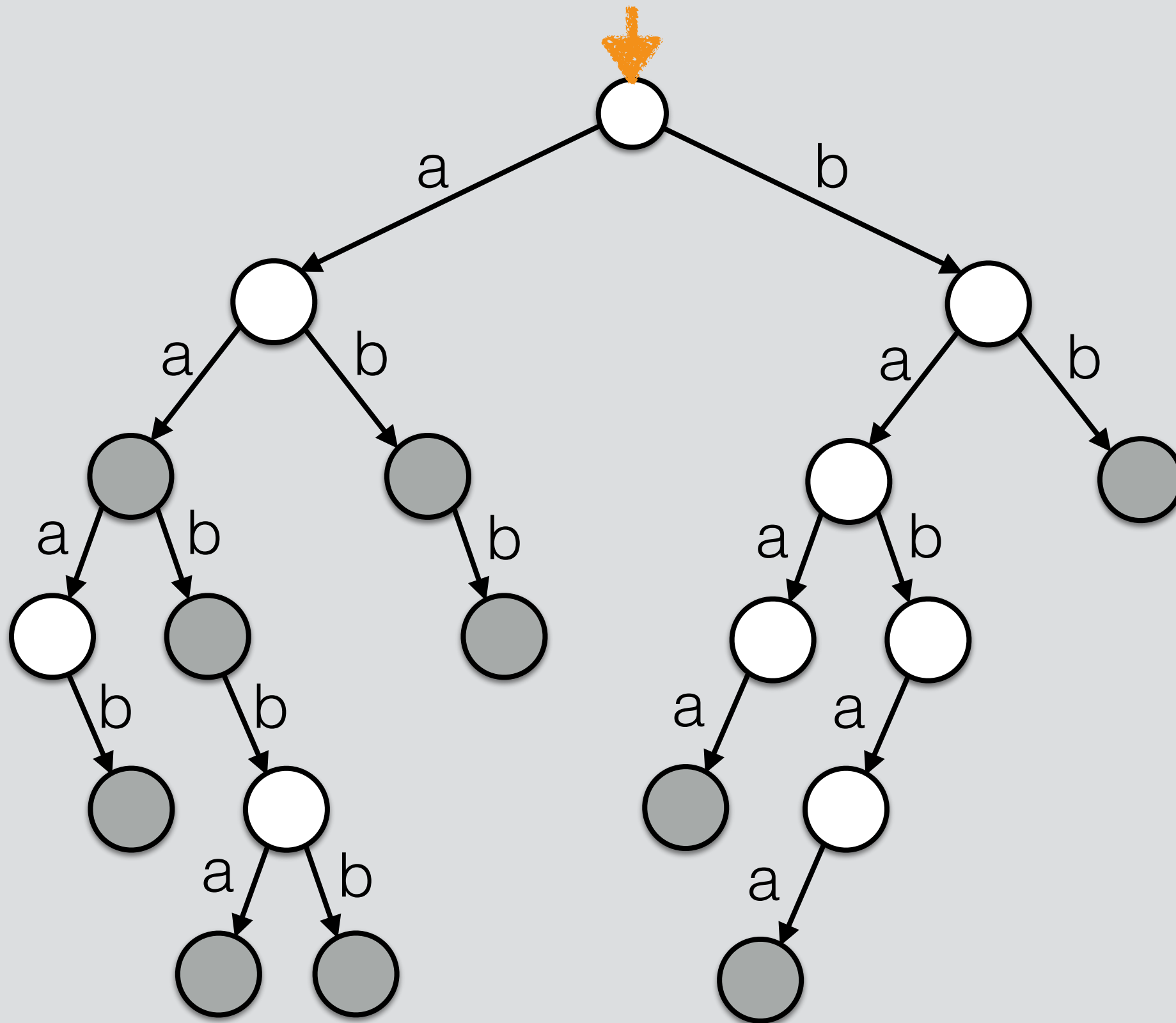


erase("bab")

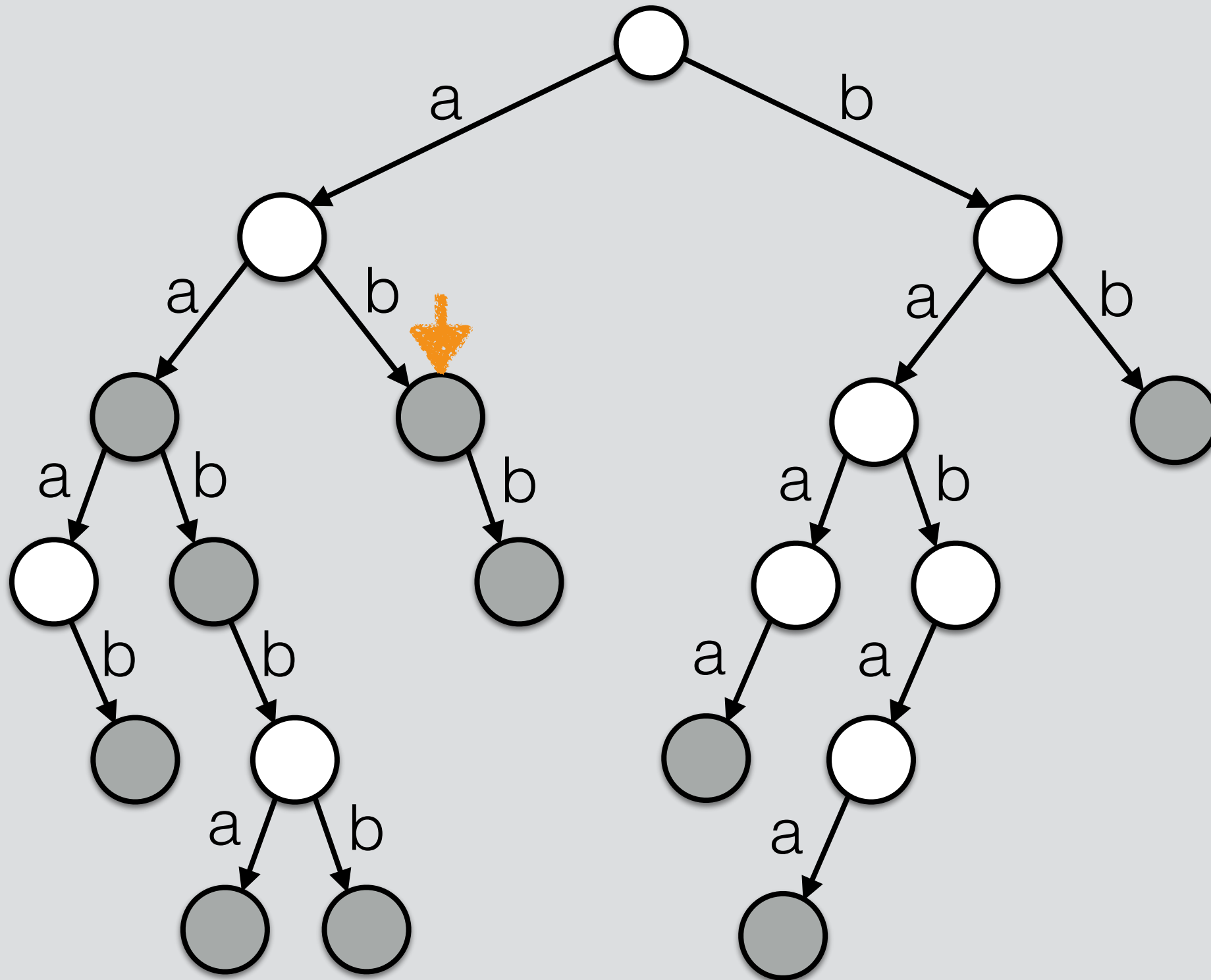




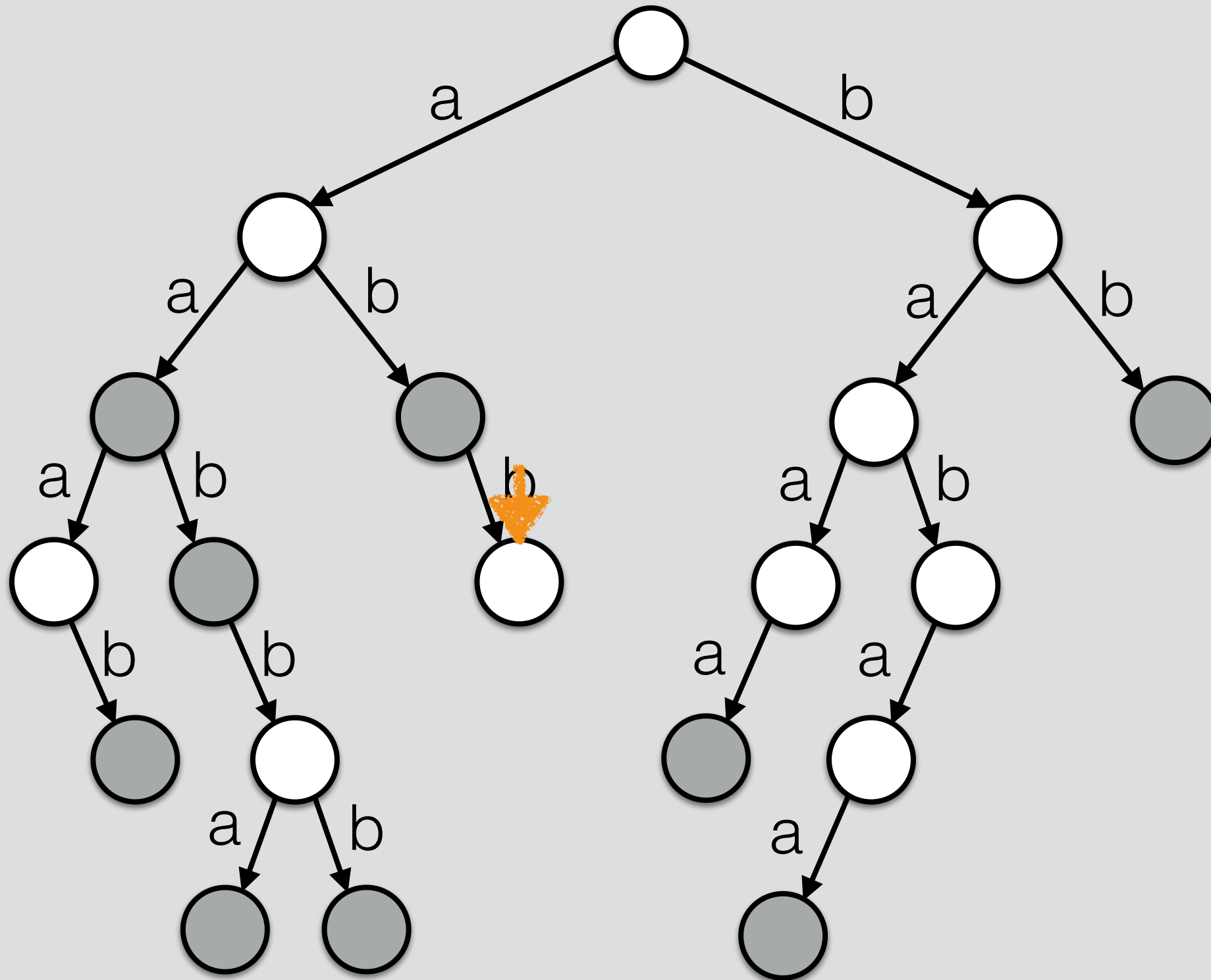
erase("abb")



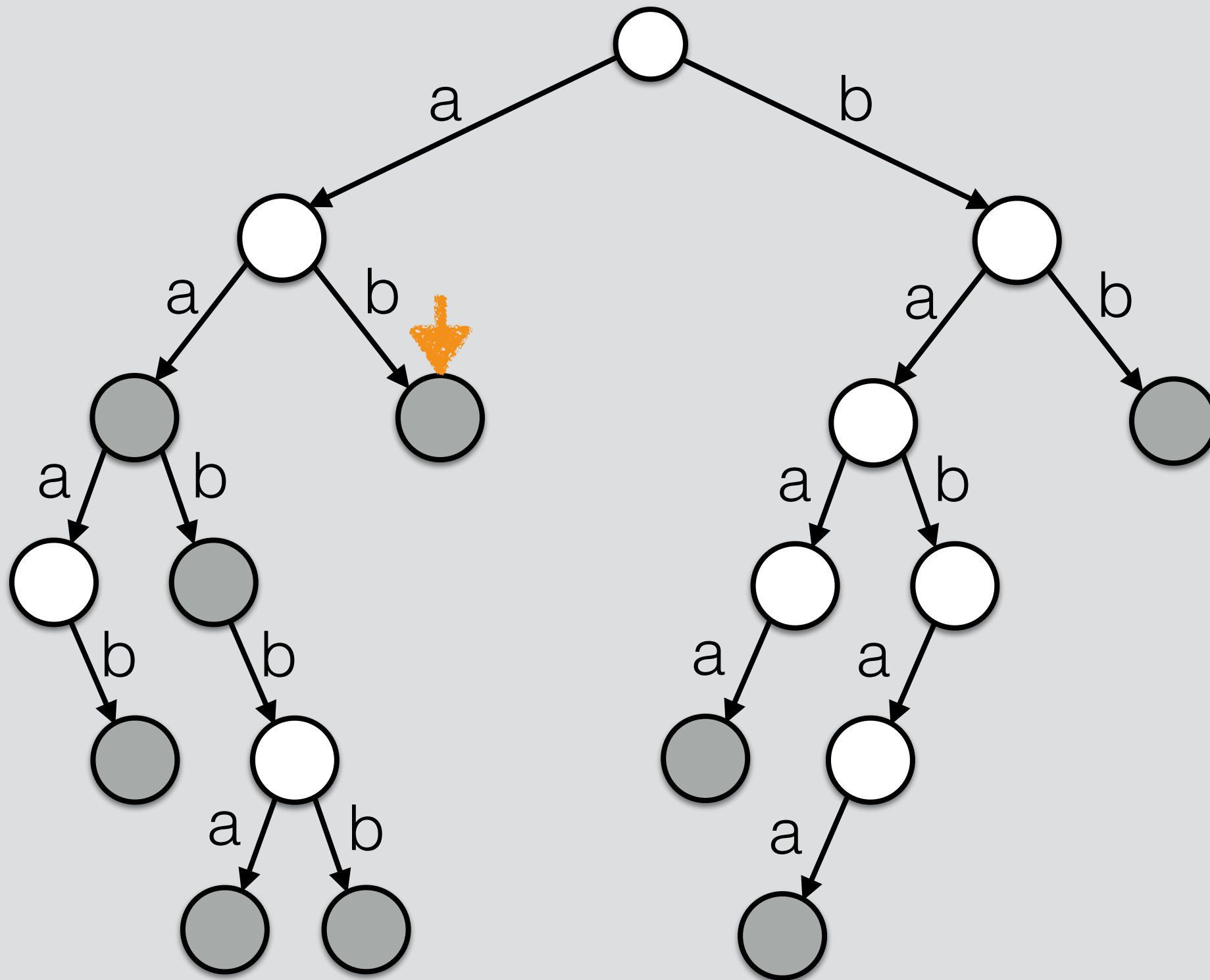
erase("abb")

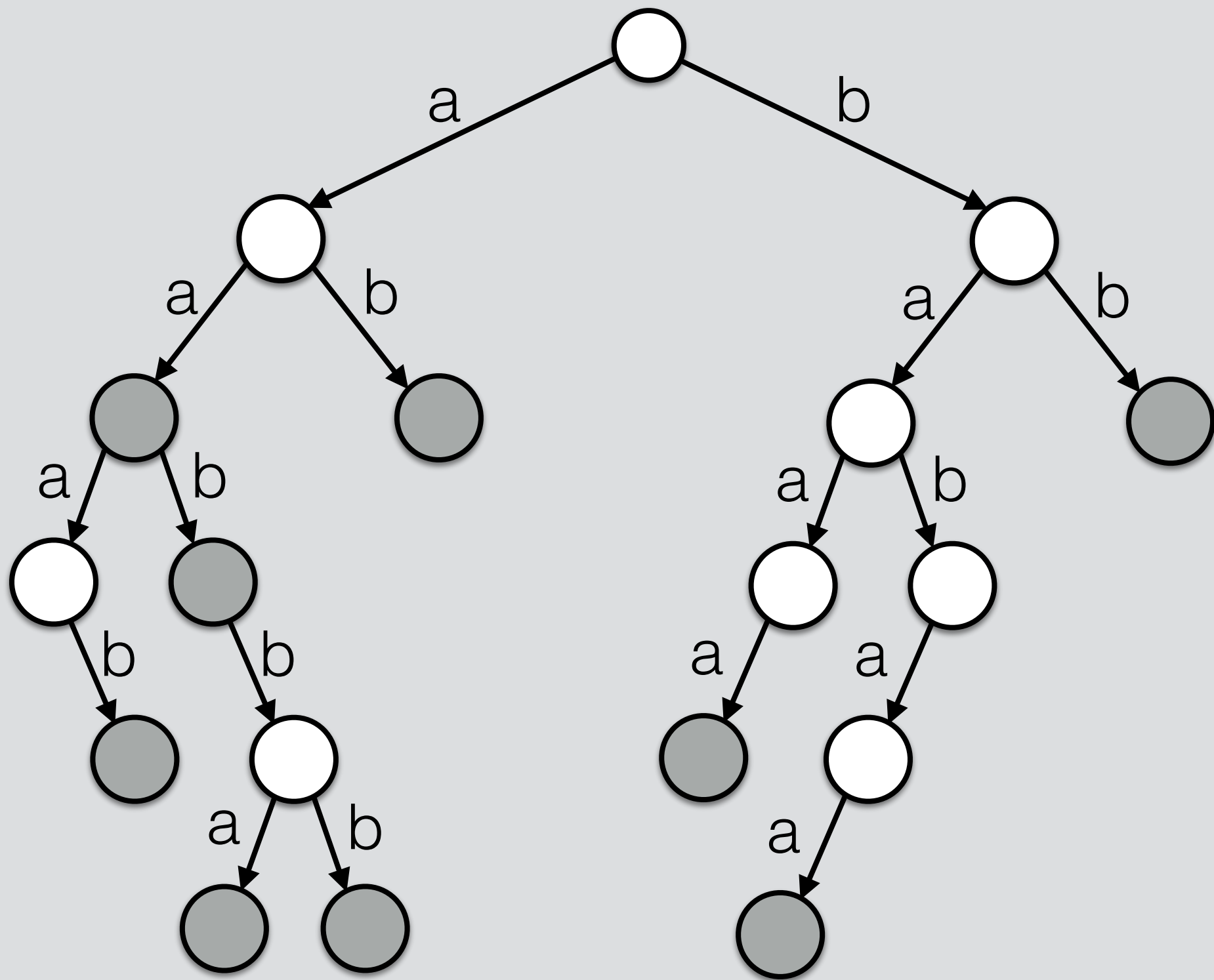


erase("abb")

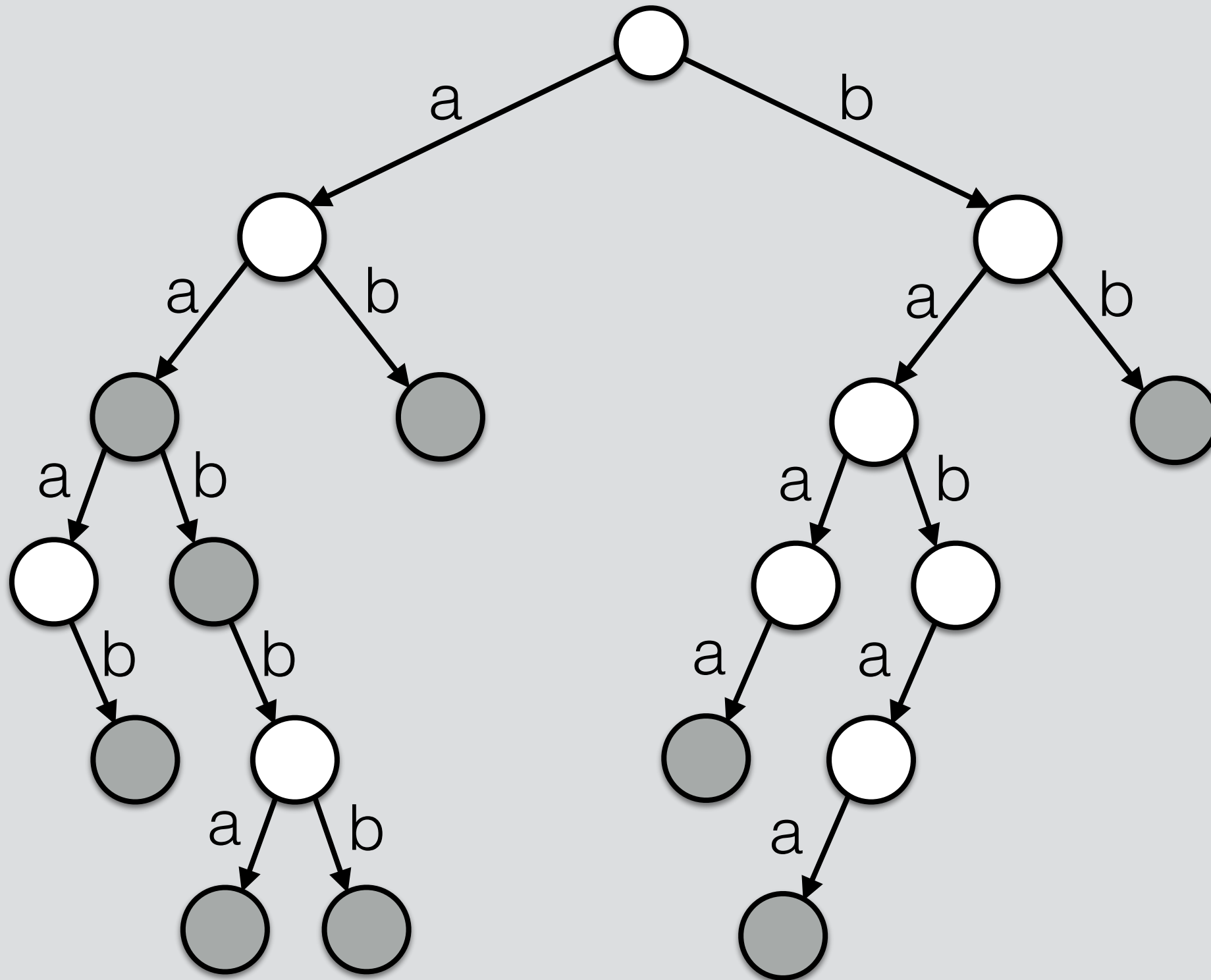


erase("abb")

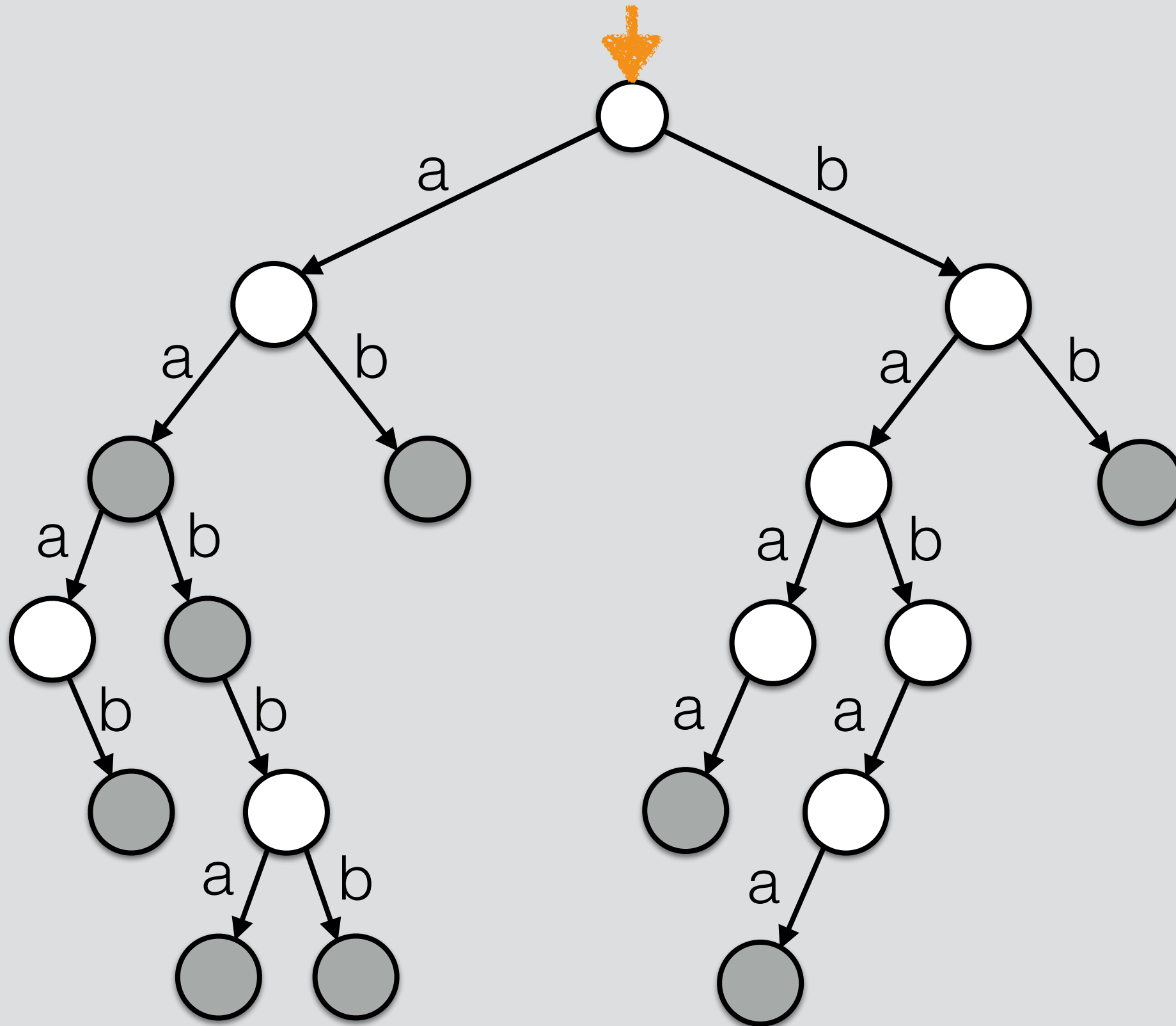




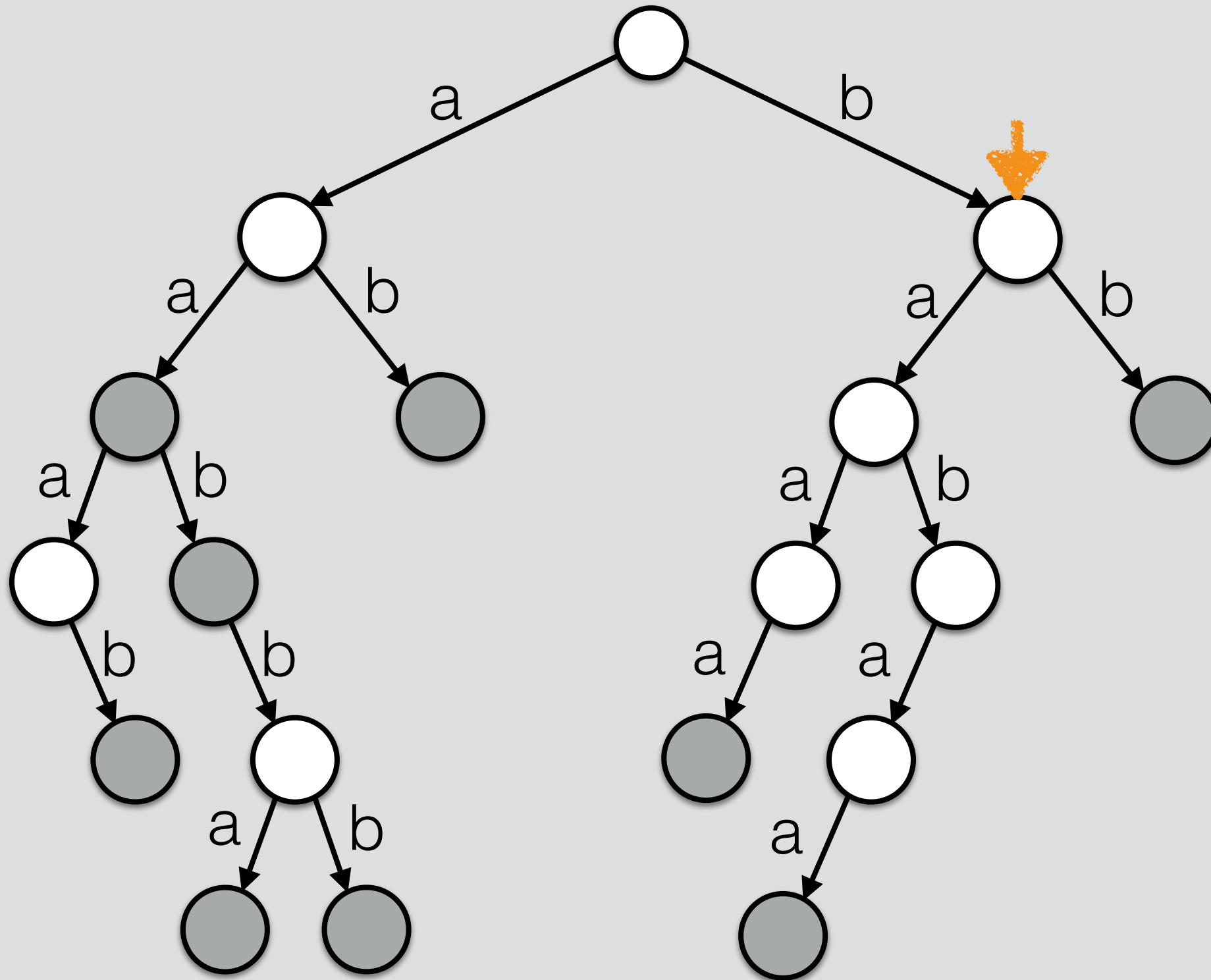
erase("babaa")



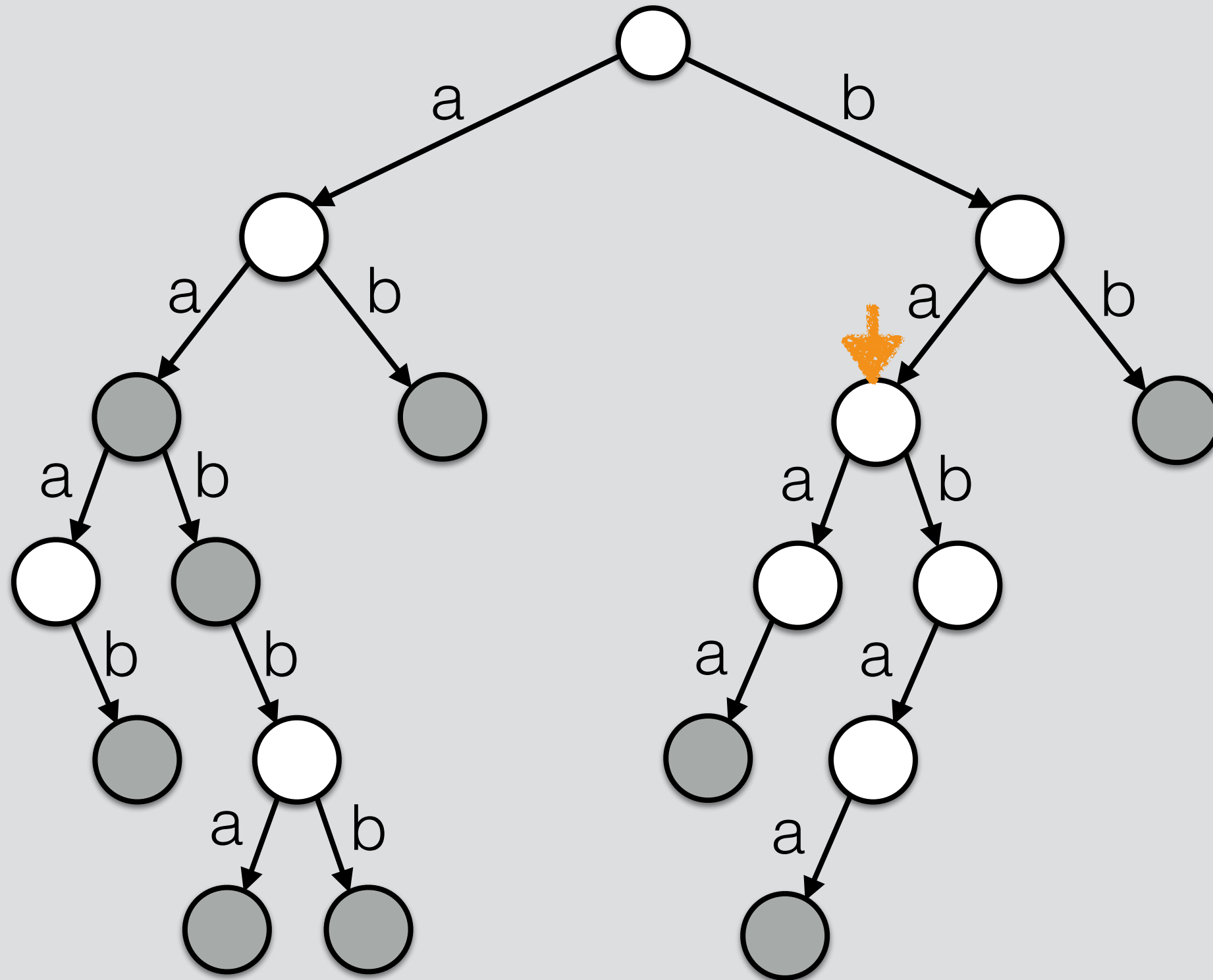
erase("babaa")



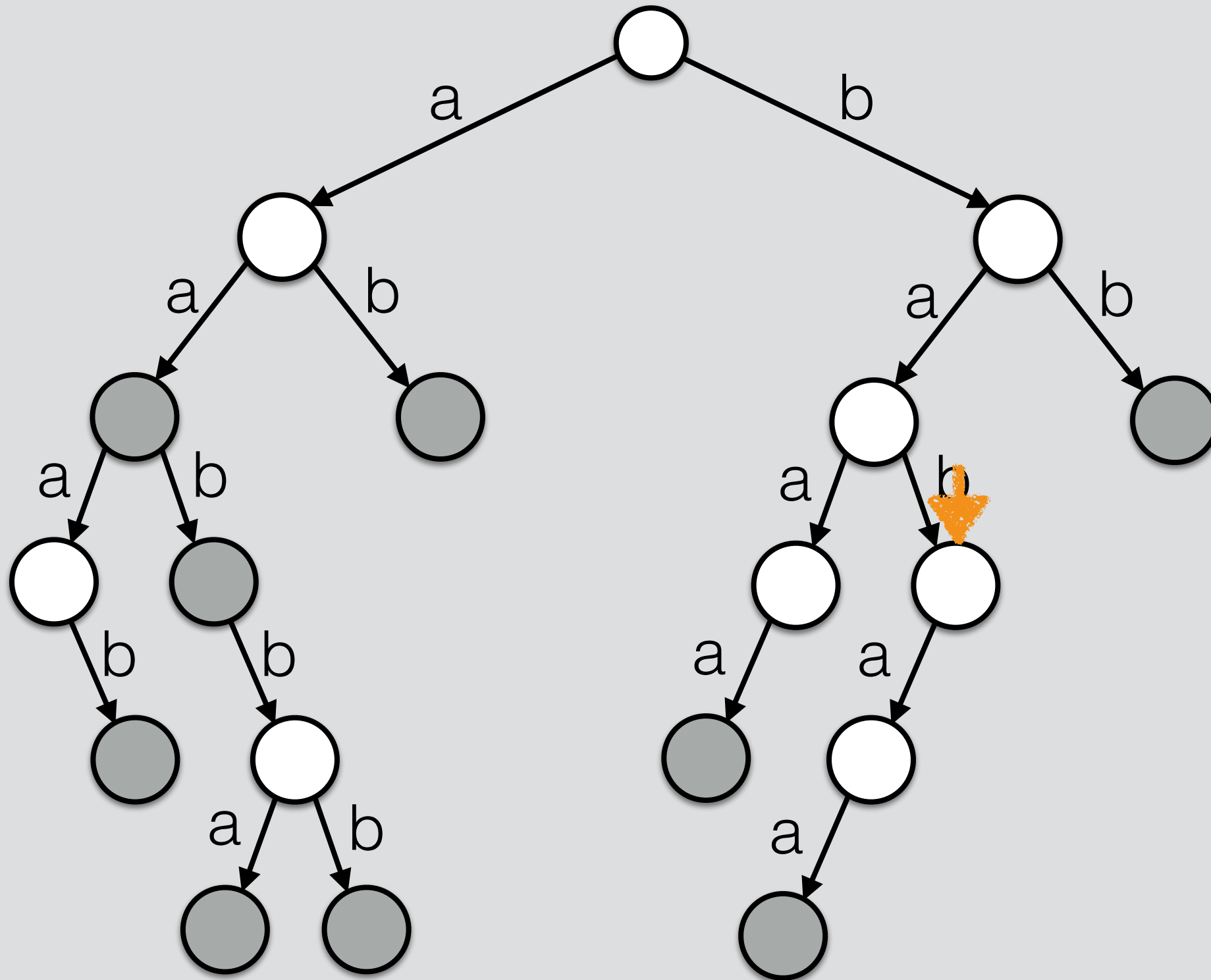
erase("babaa")



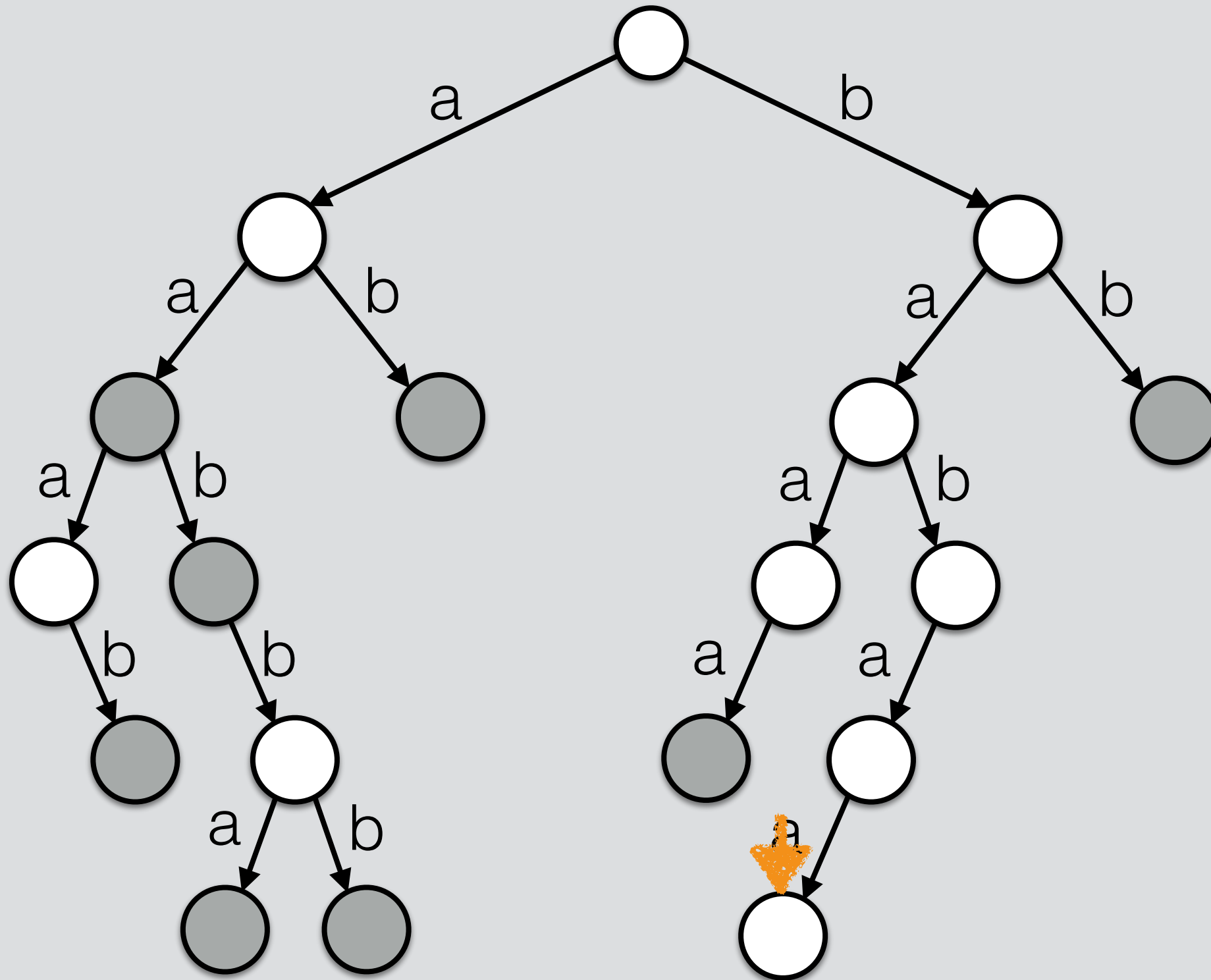
erase("babaa")



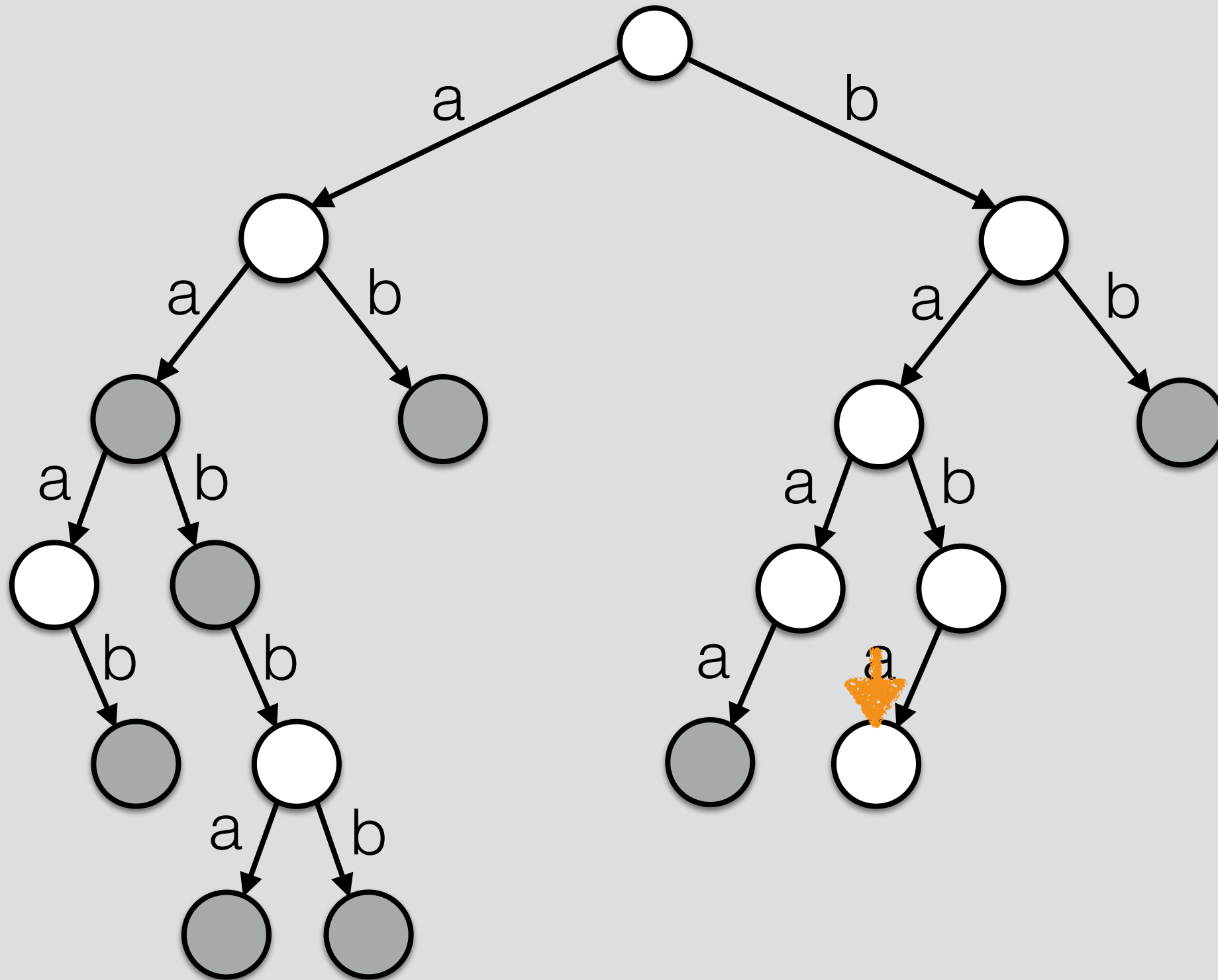
erase("babaa")



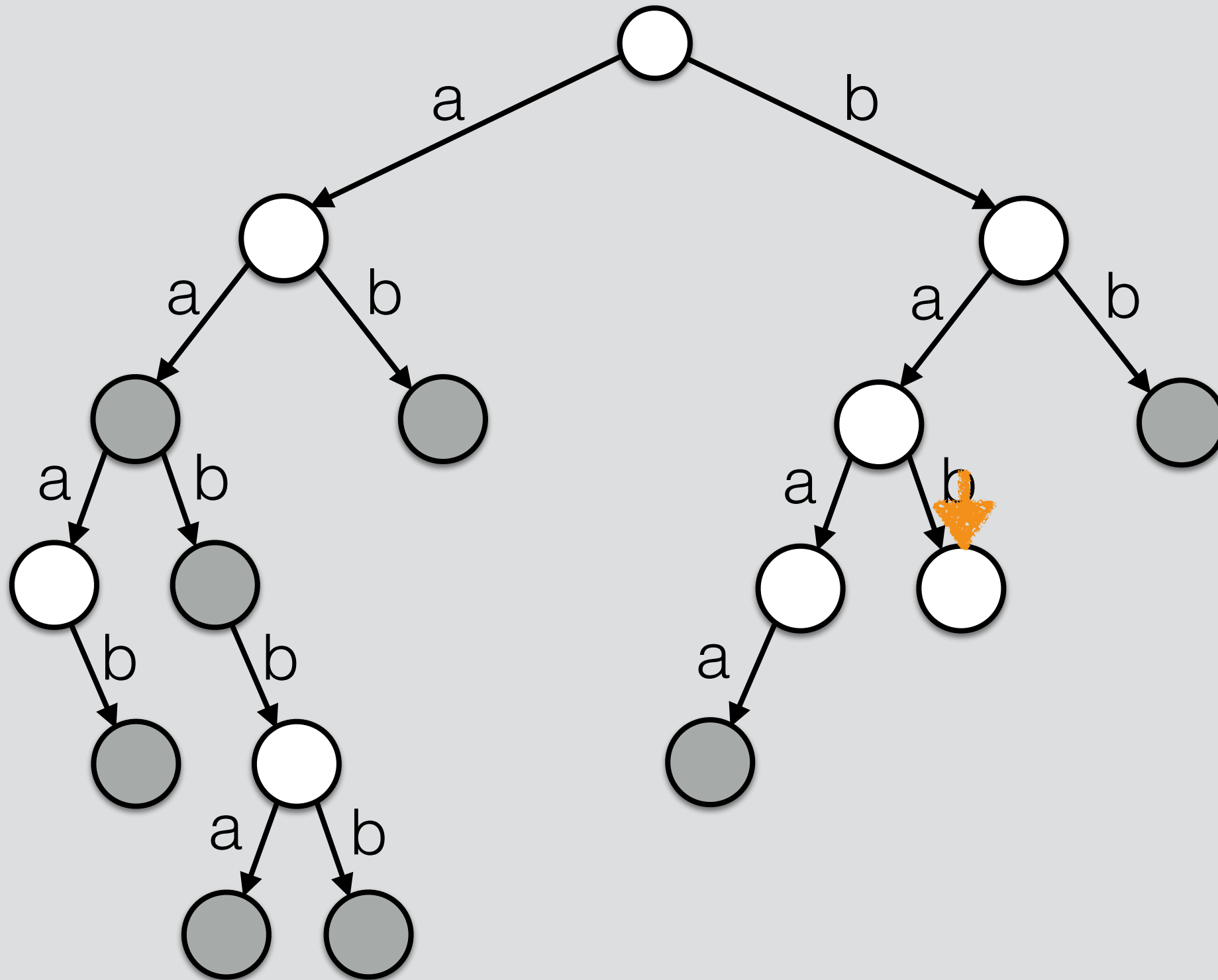
erase("babaa")



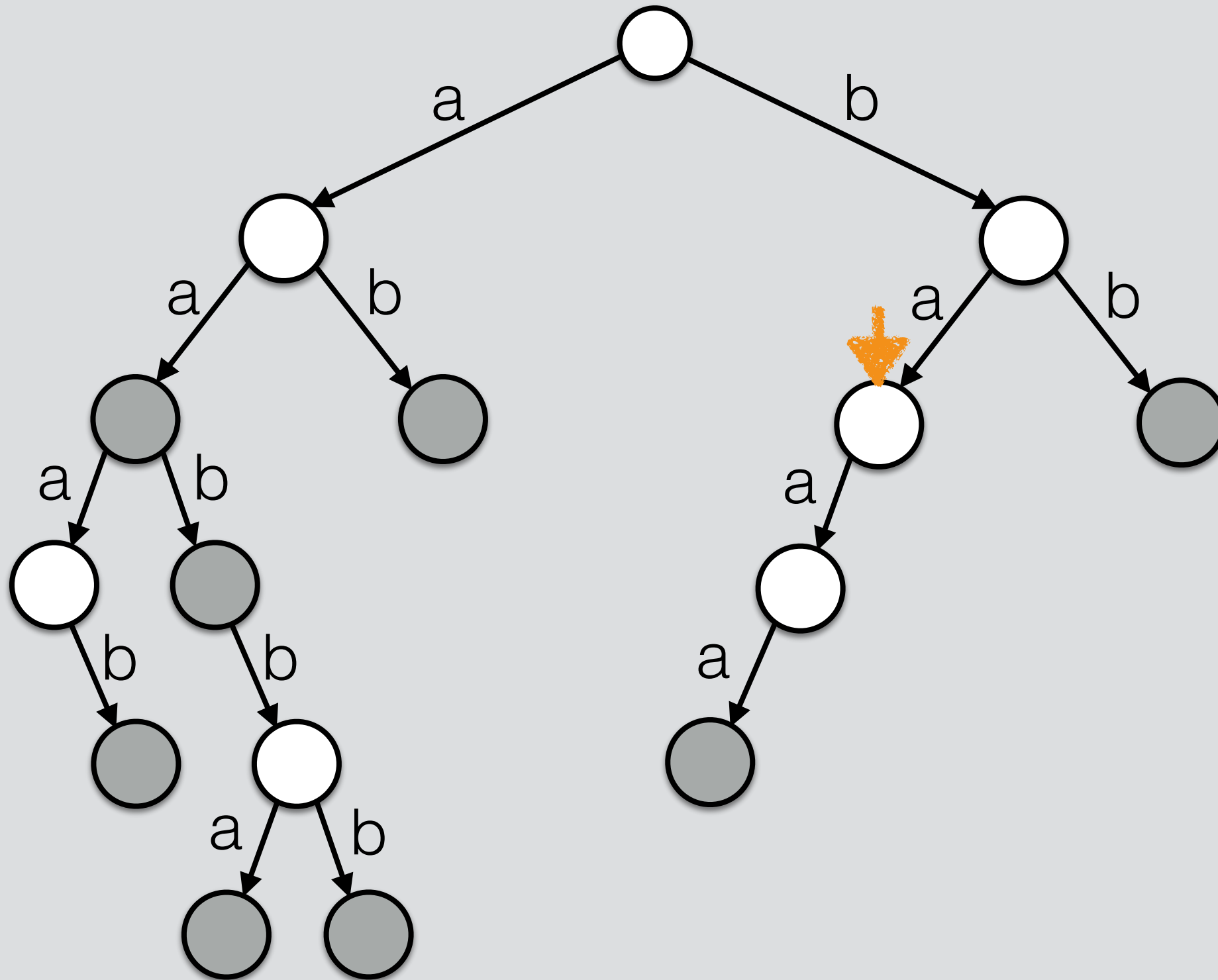
erase("babaa")

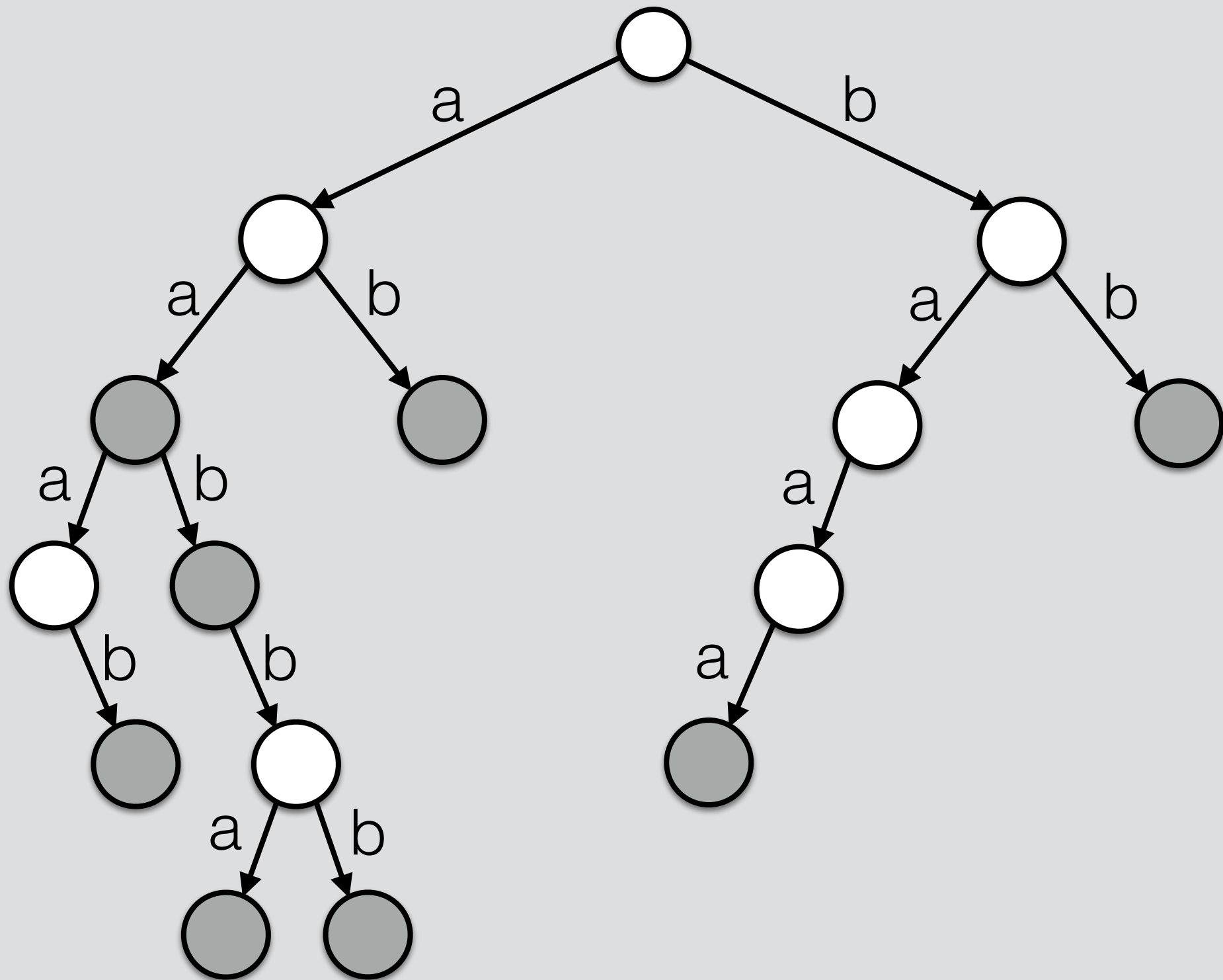


erase("babaa")

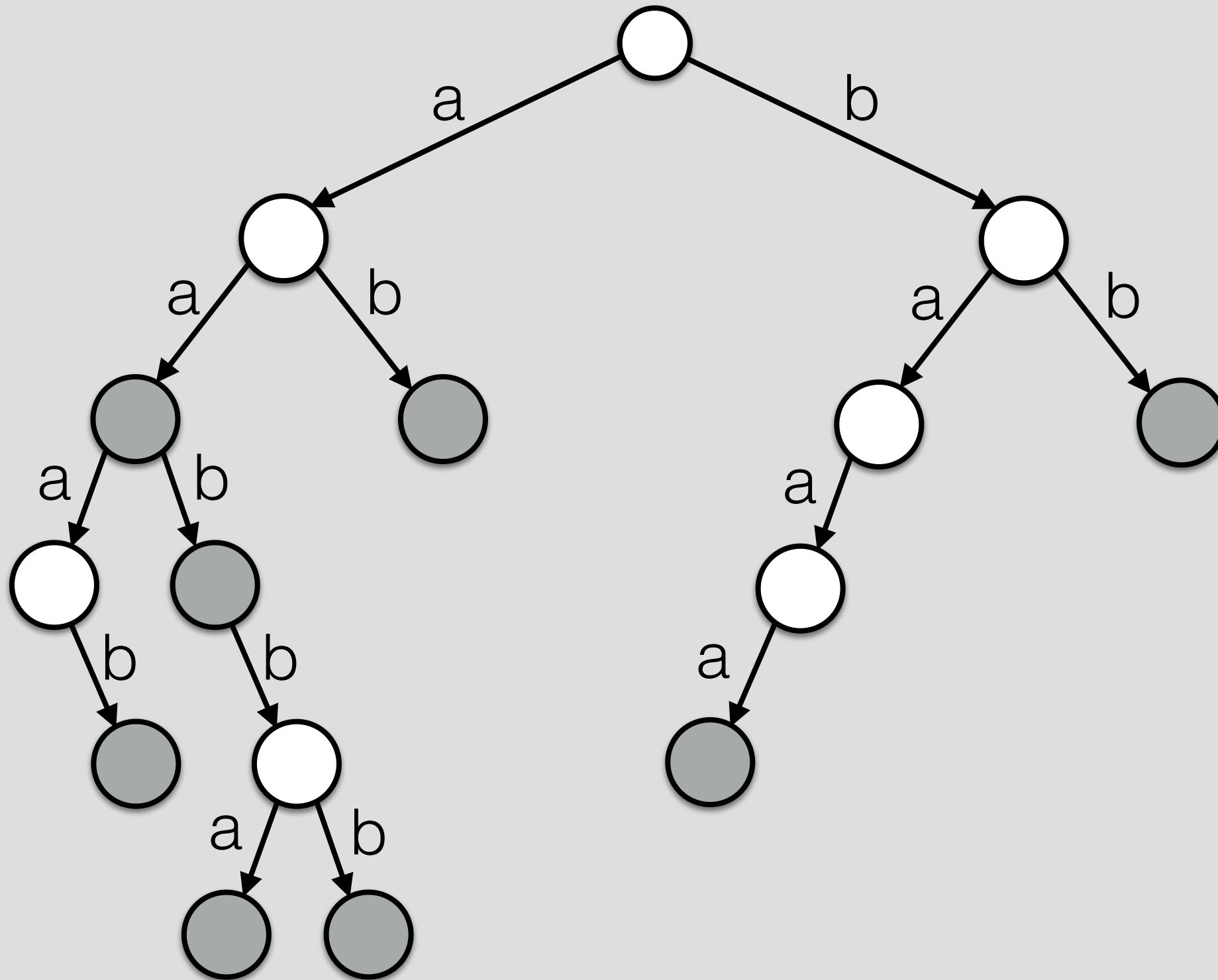


erase("babaa")

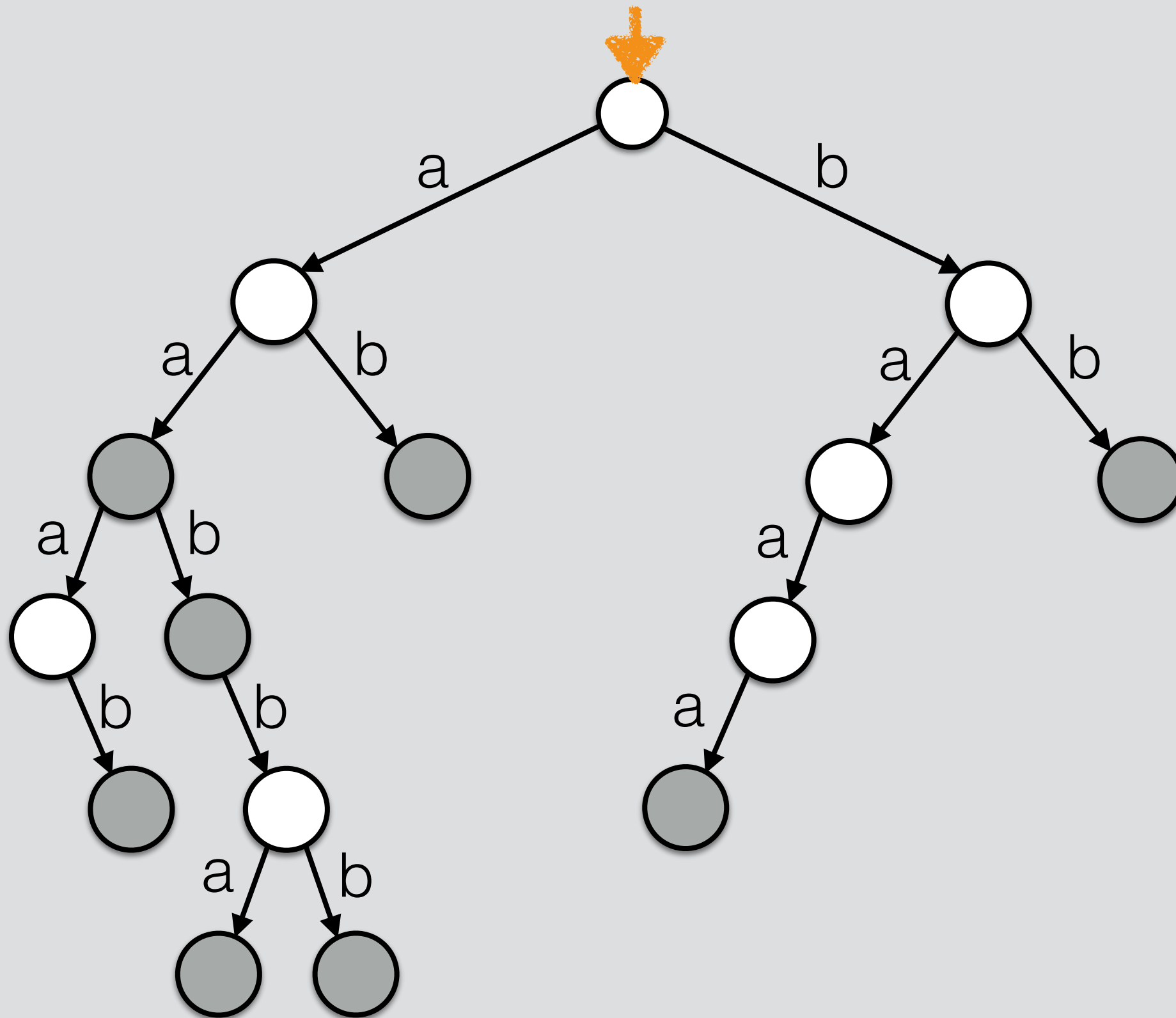




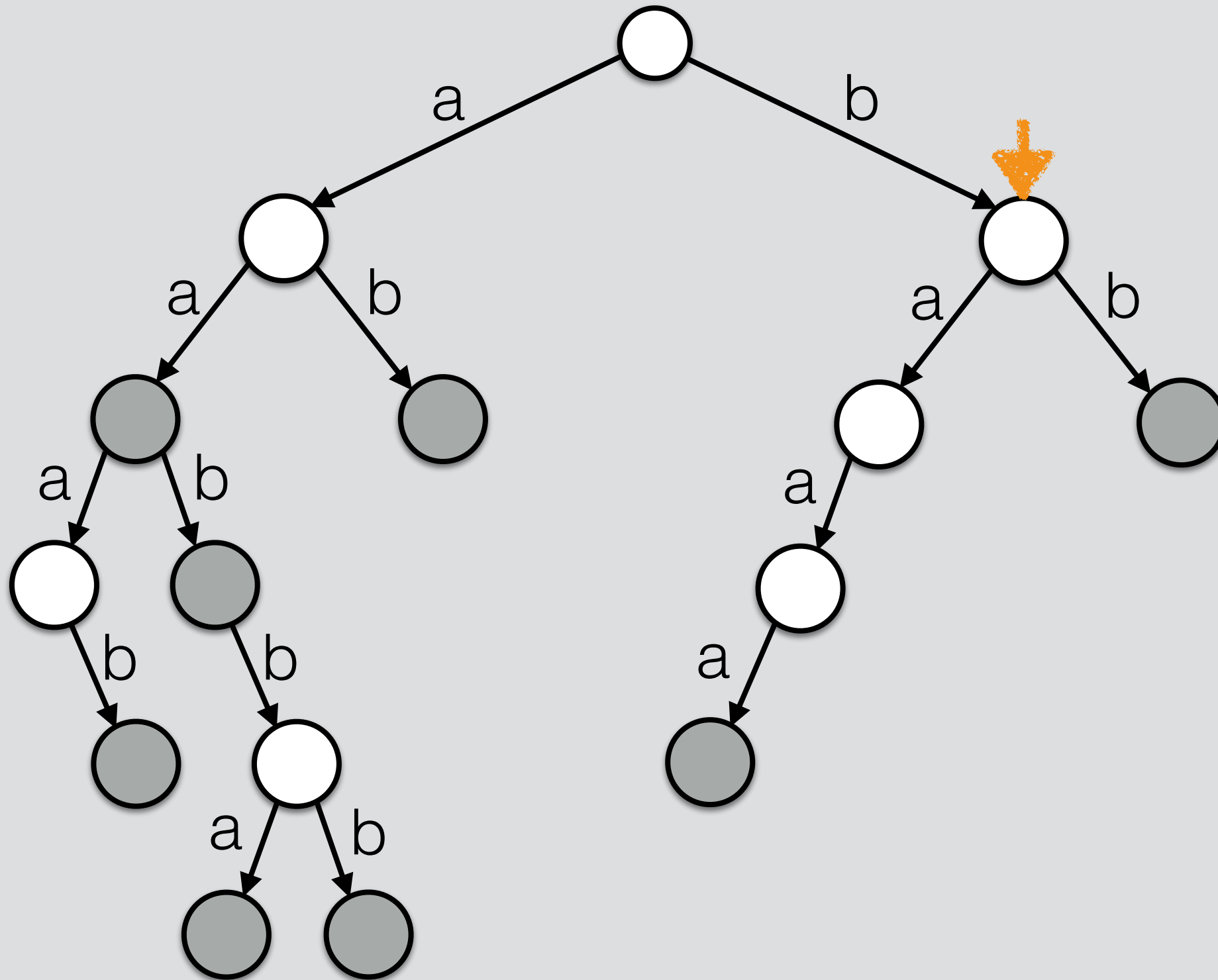
erase("baaa")



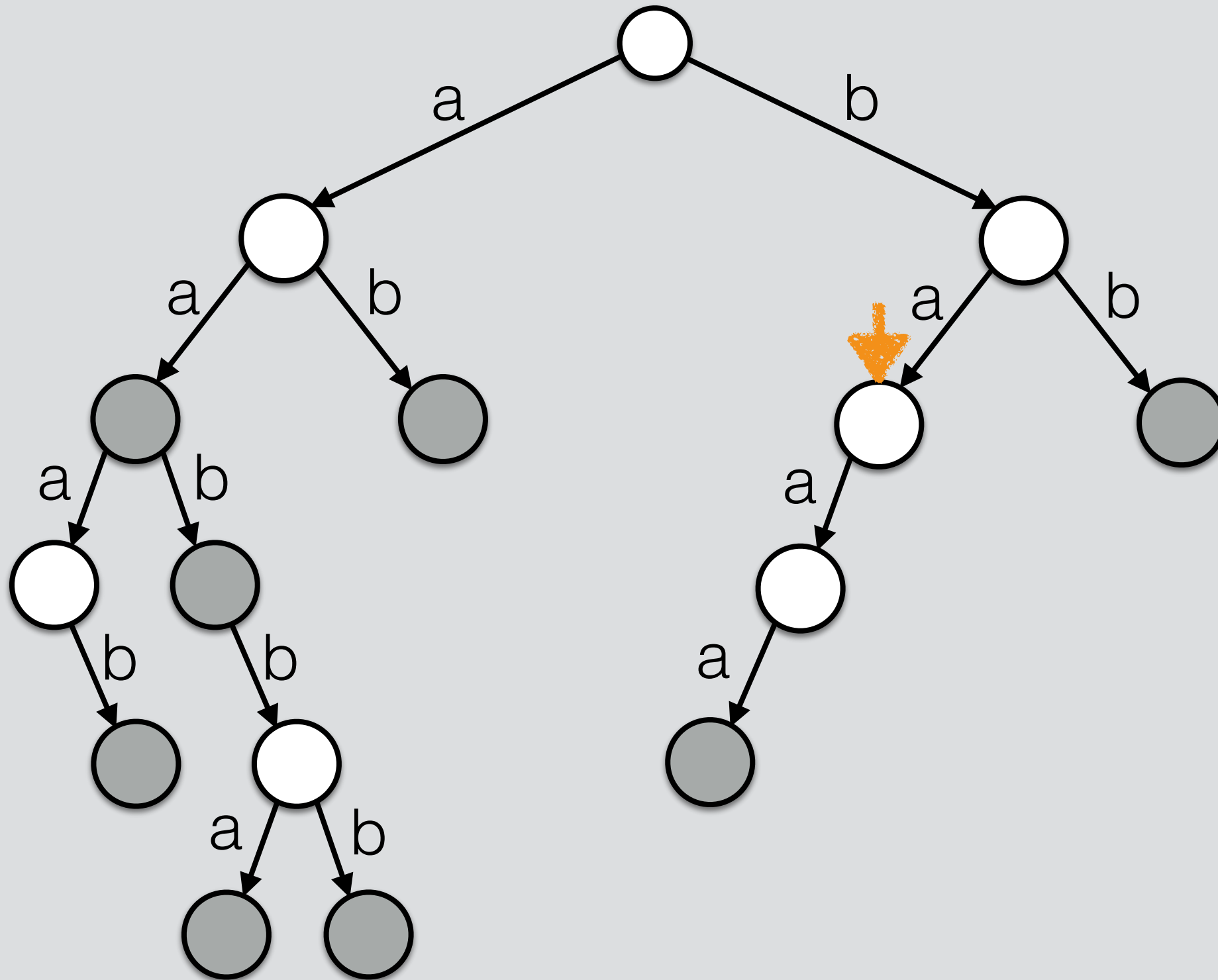
erase("baaa")



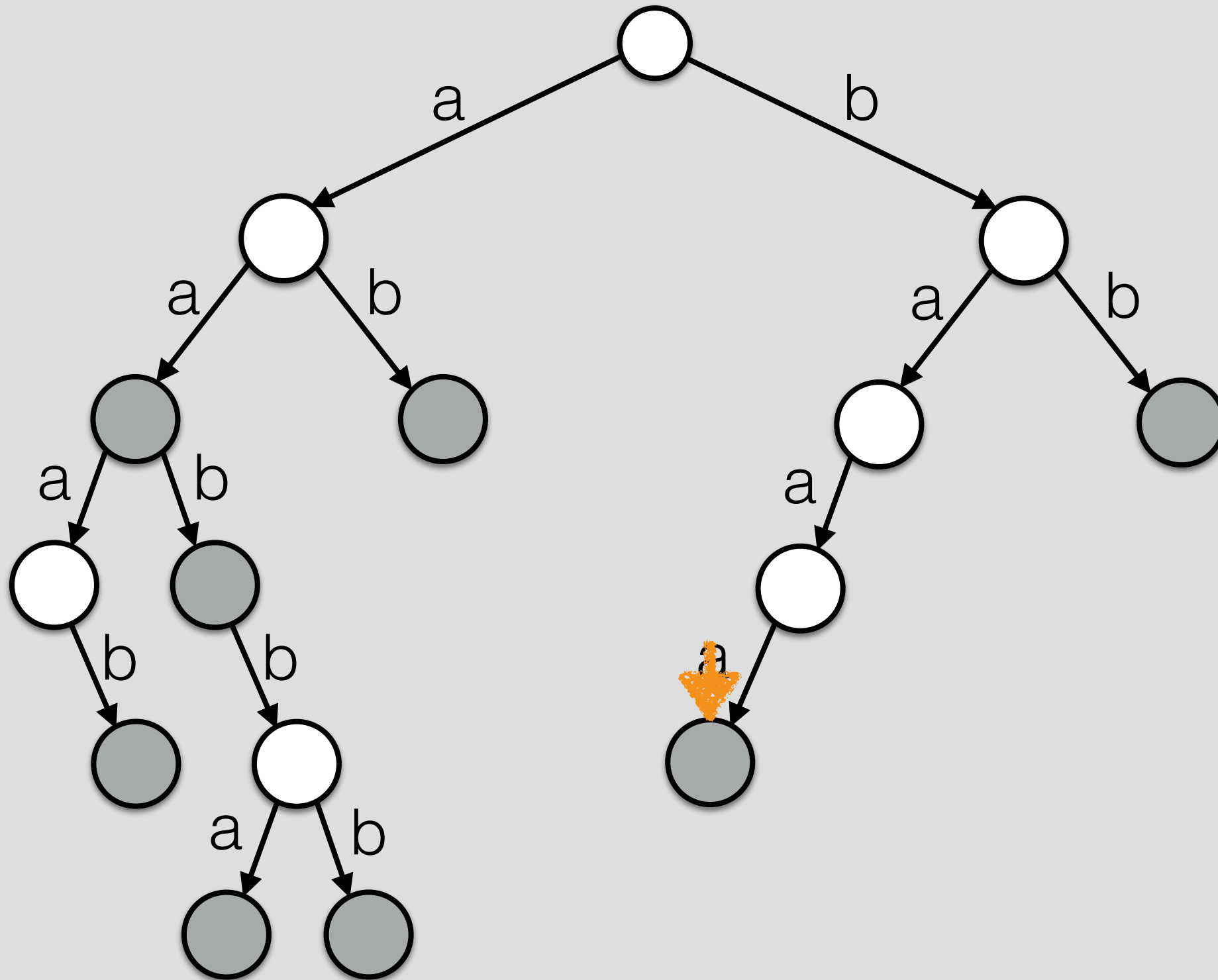
erase("baaa")



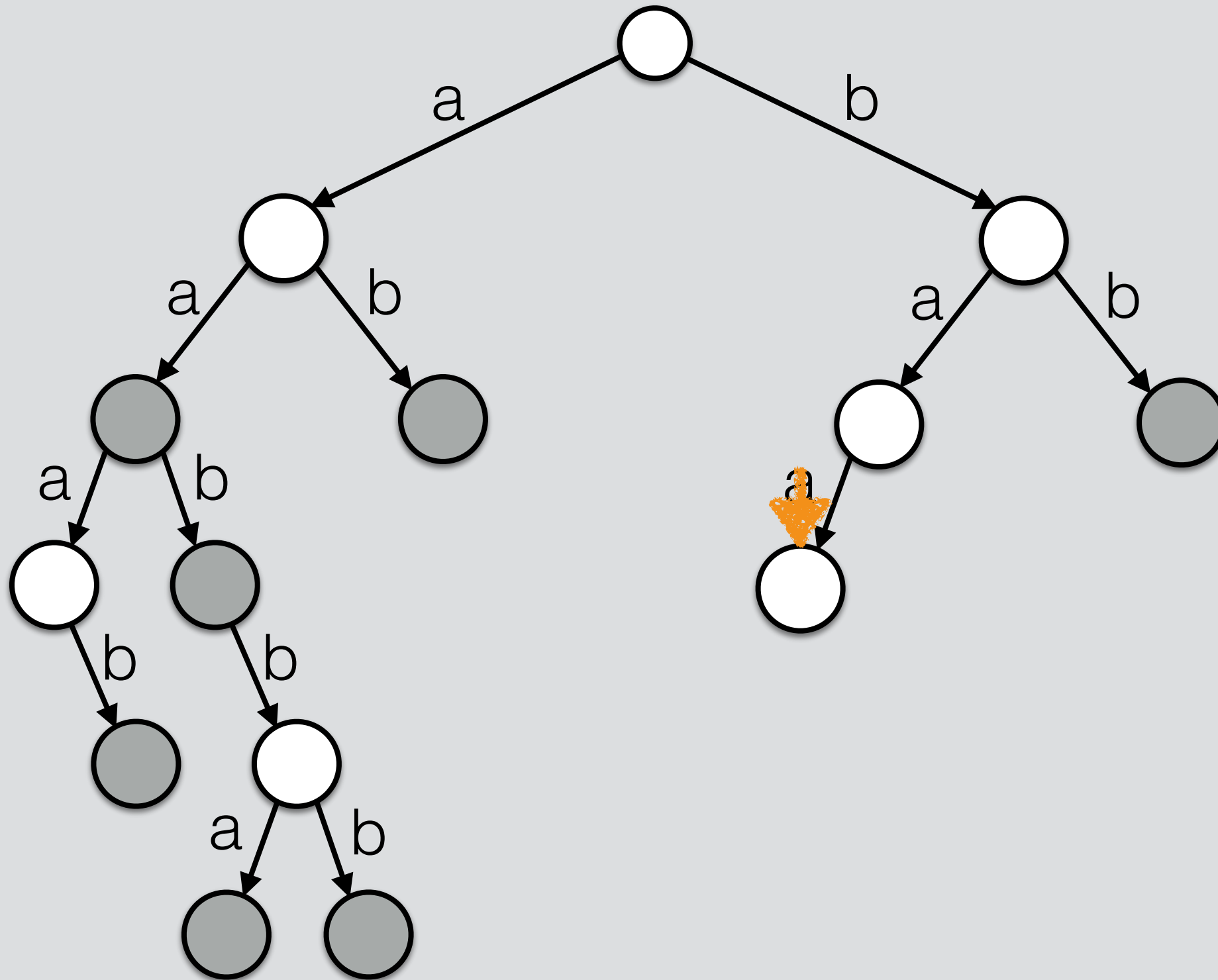
erase("baaa")



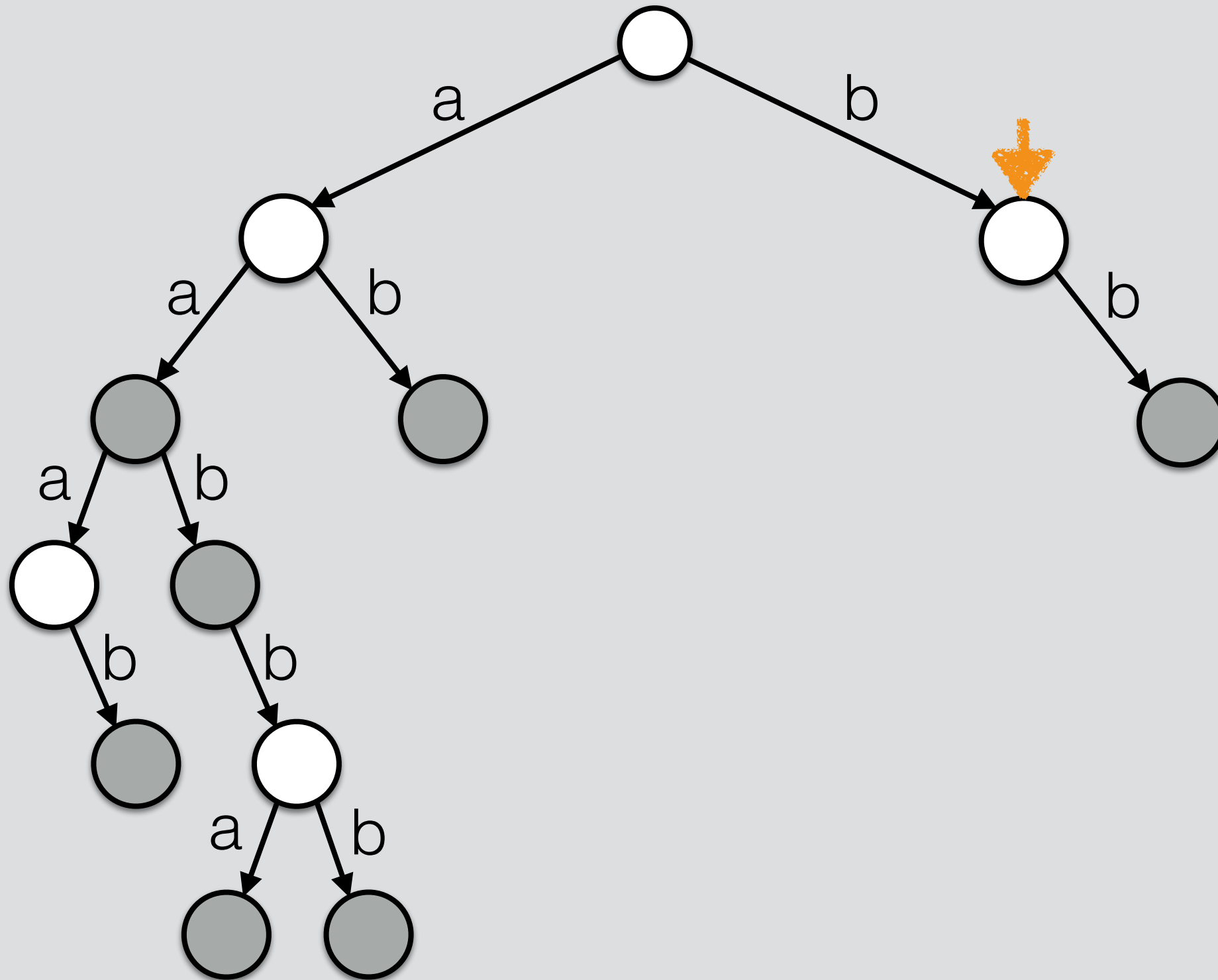
erase("baaa")

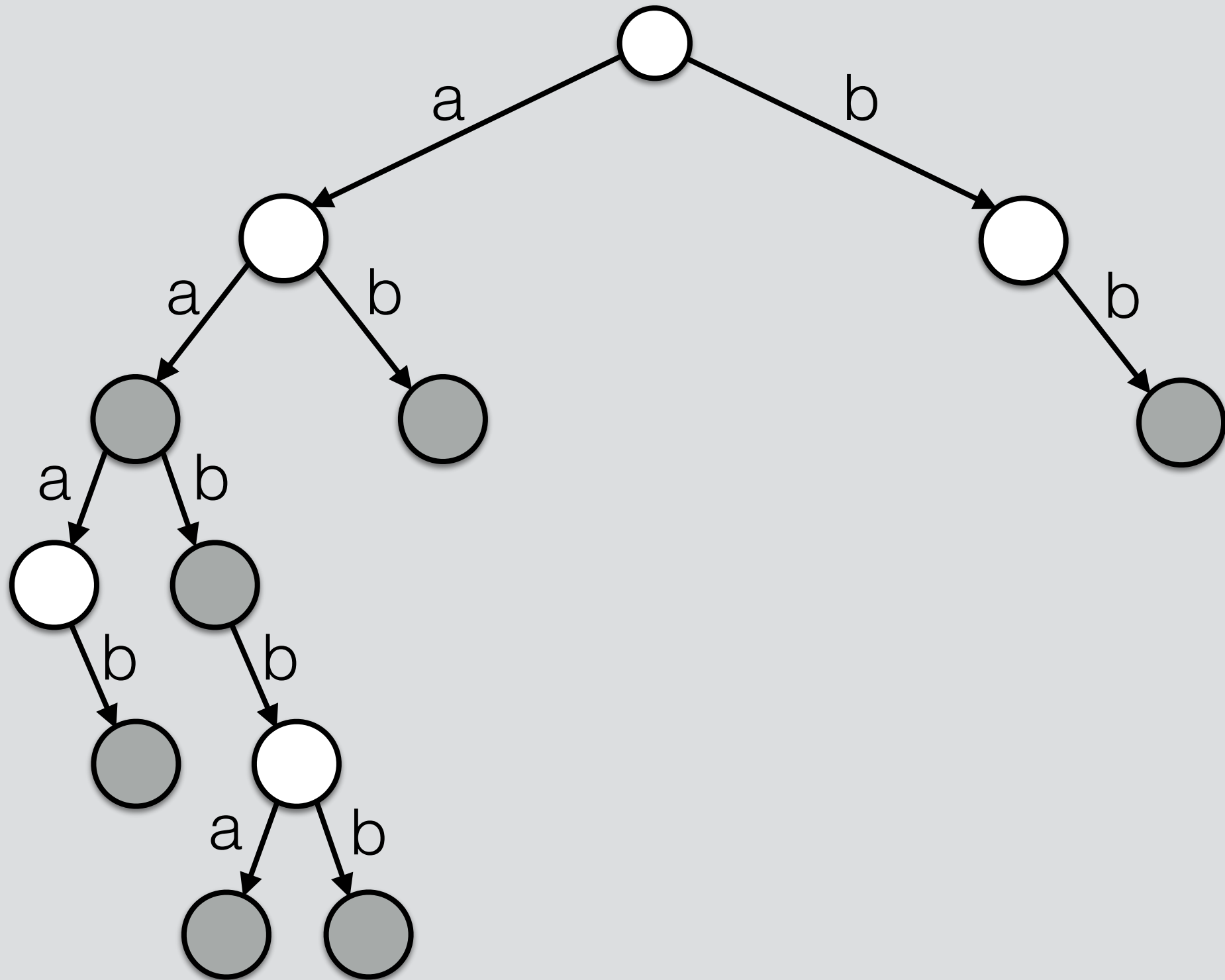


erase("baaa")



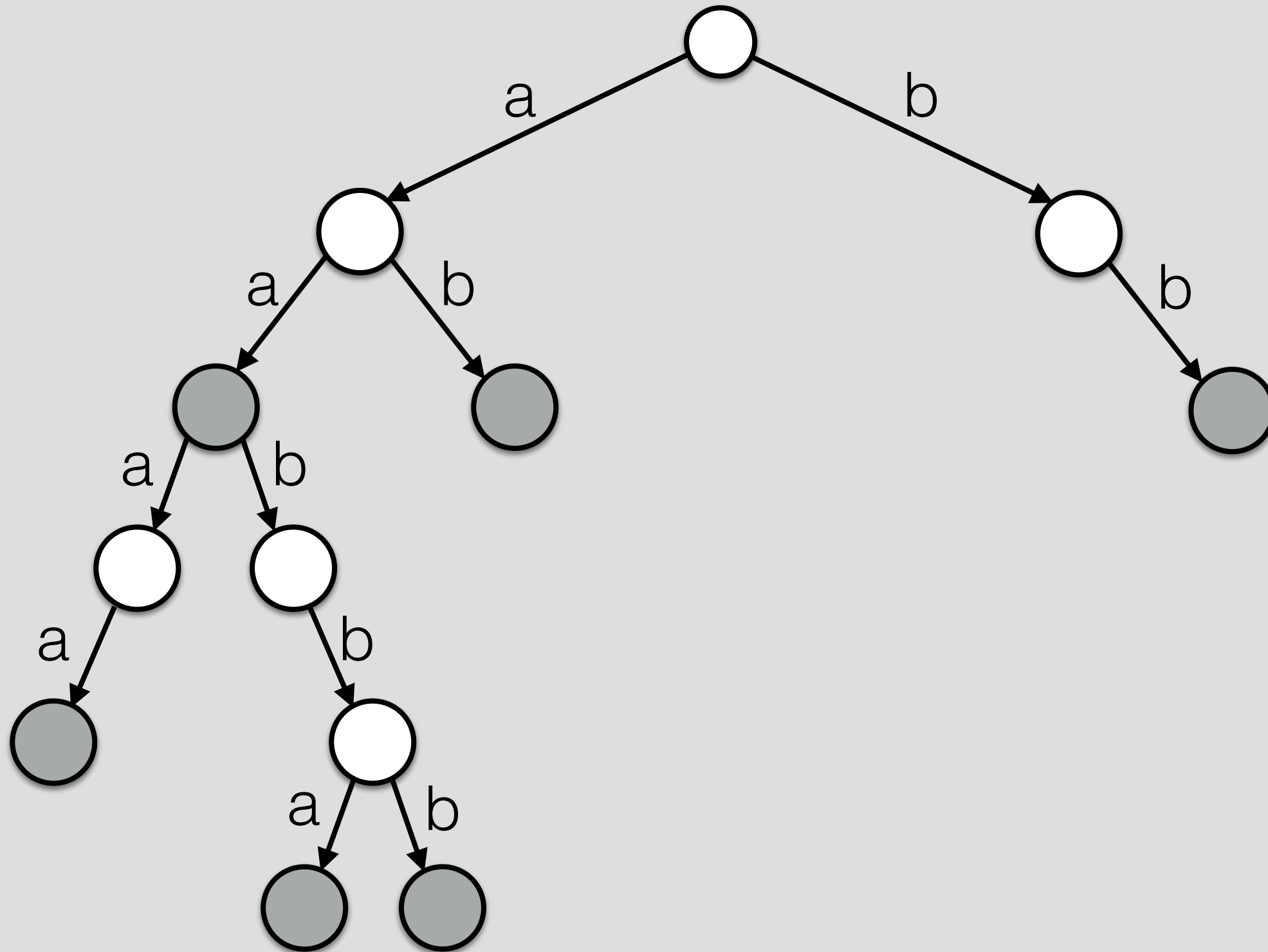
erase("baaa")



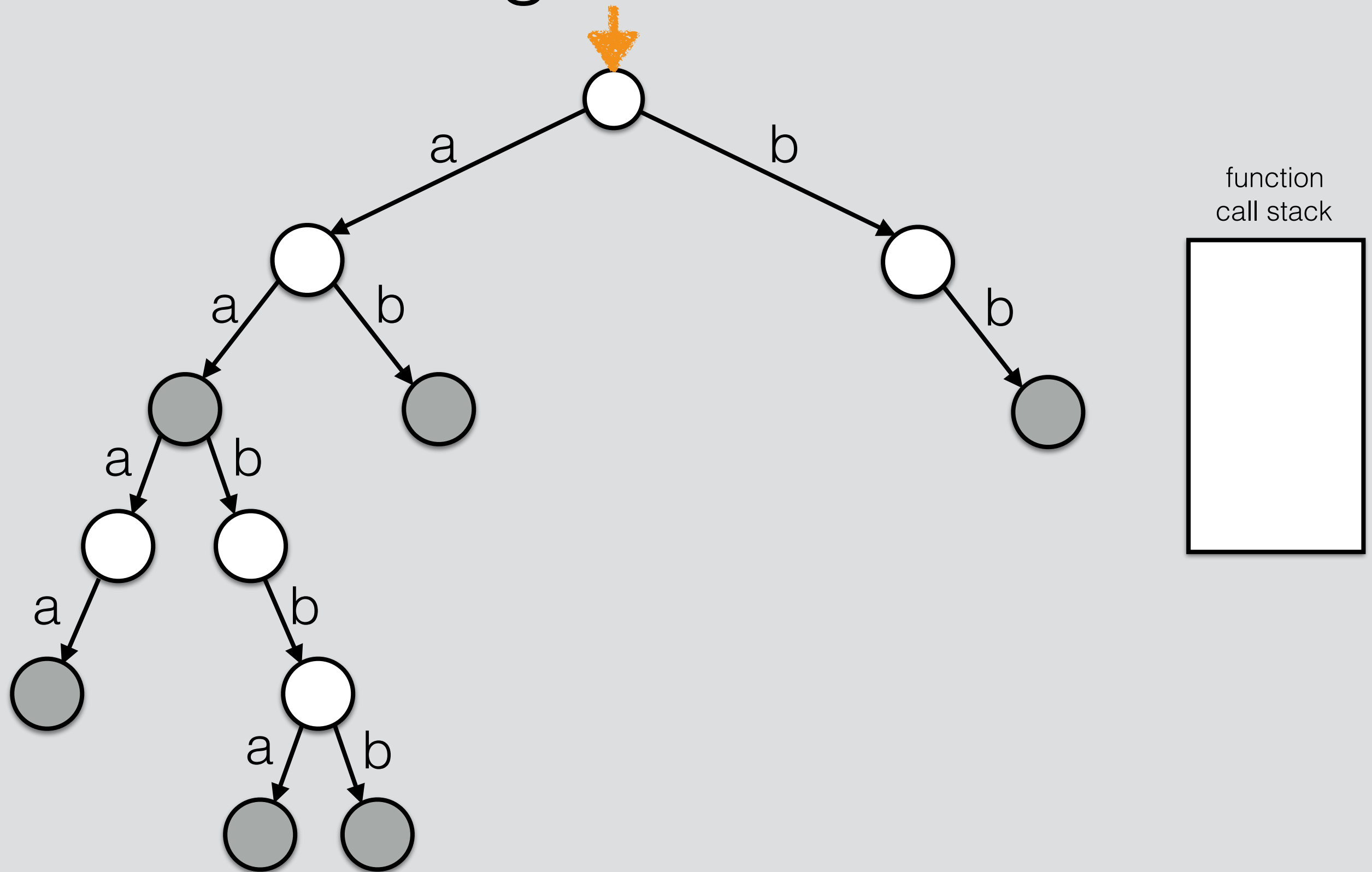


Traversal

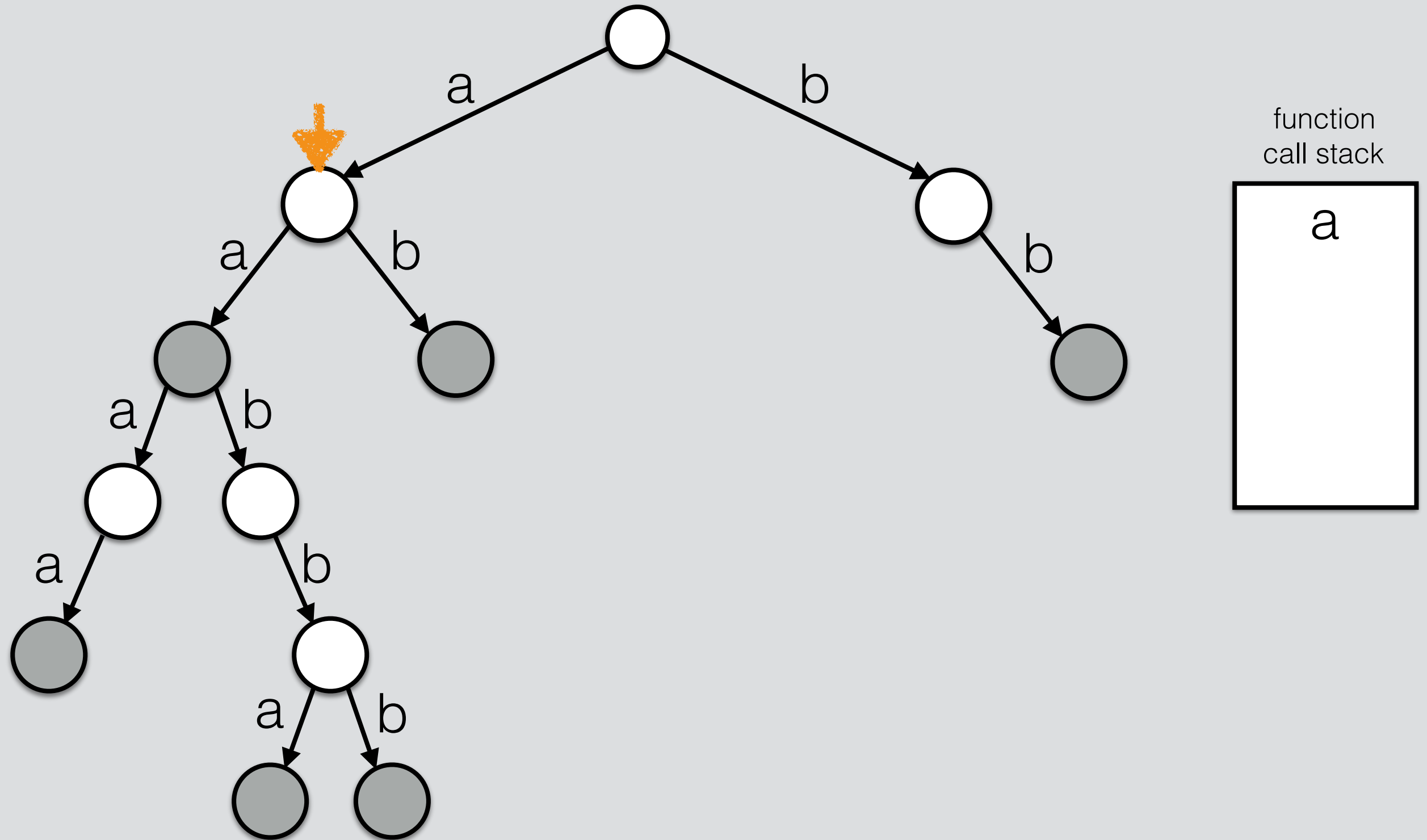
Printing in Sorted Order



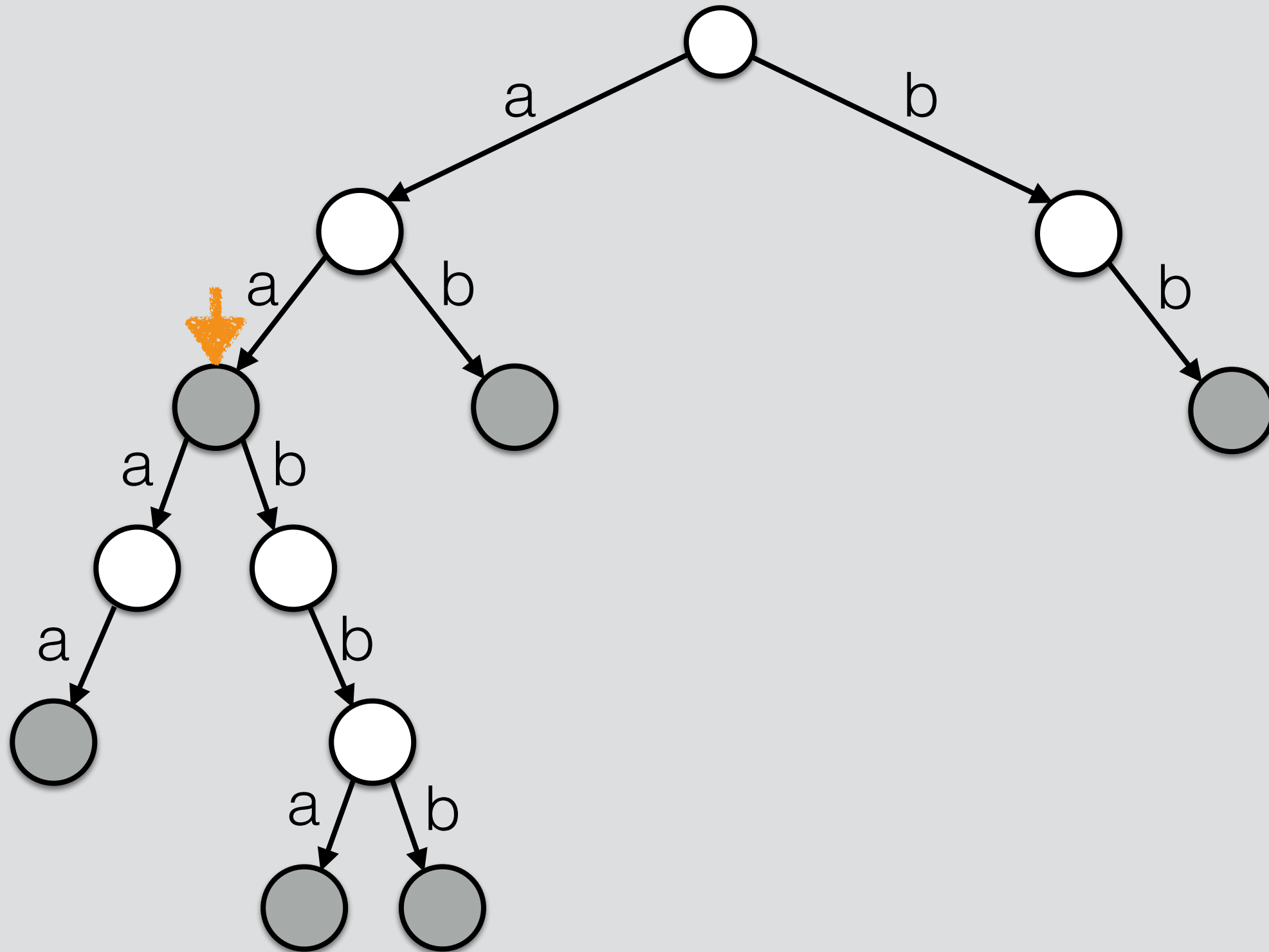
Printing in Sorted Order



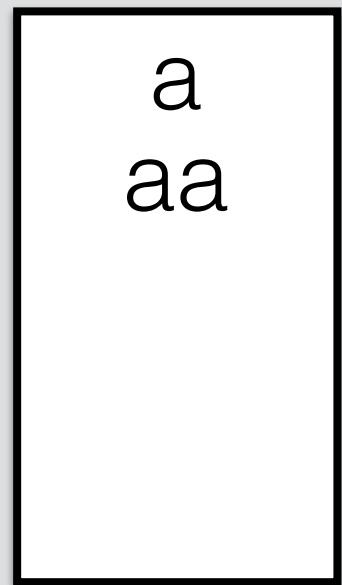
Printing in Sorted Order



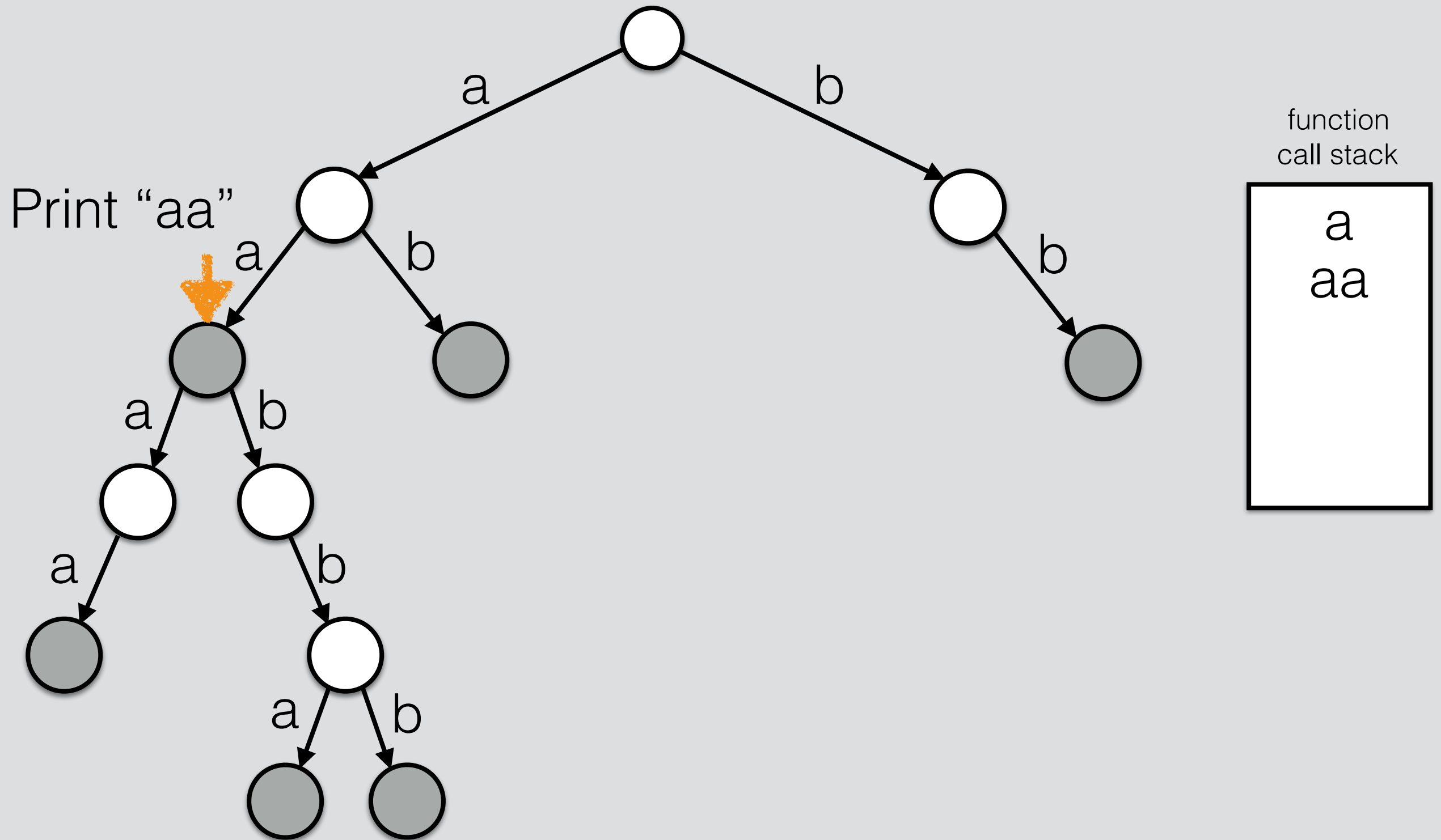
Printing in Sorted Order



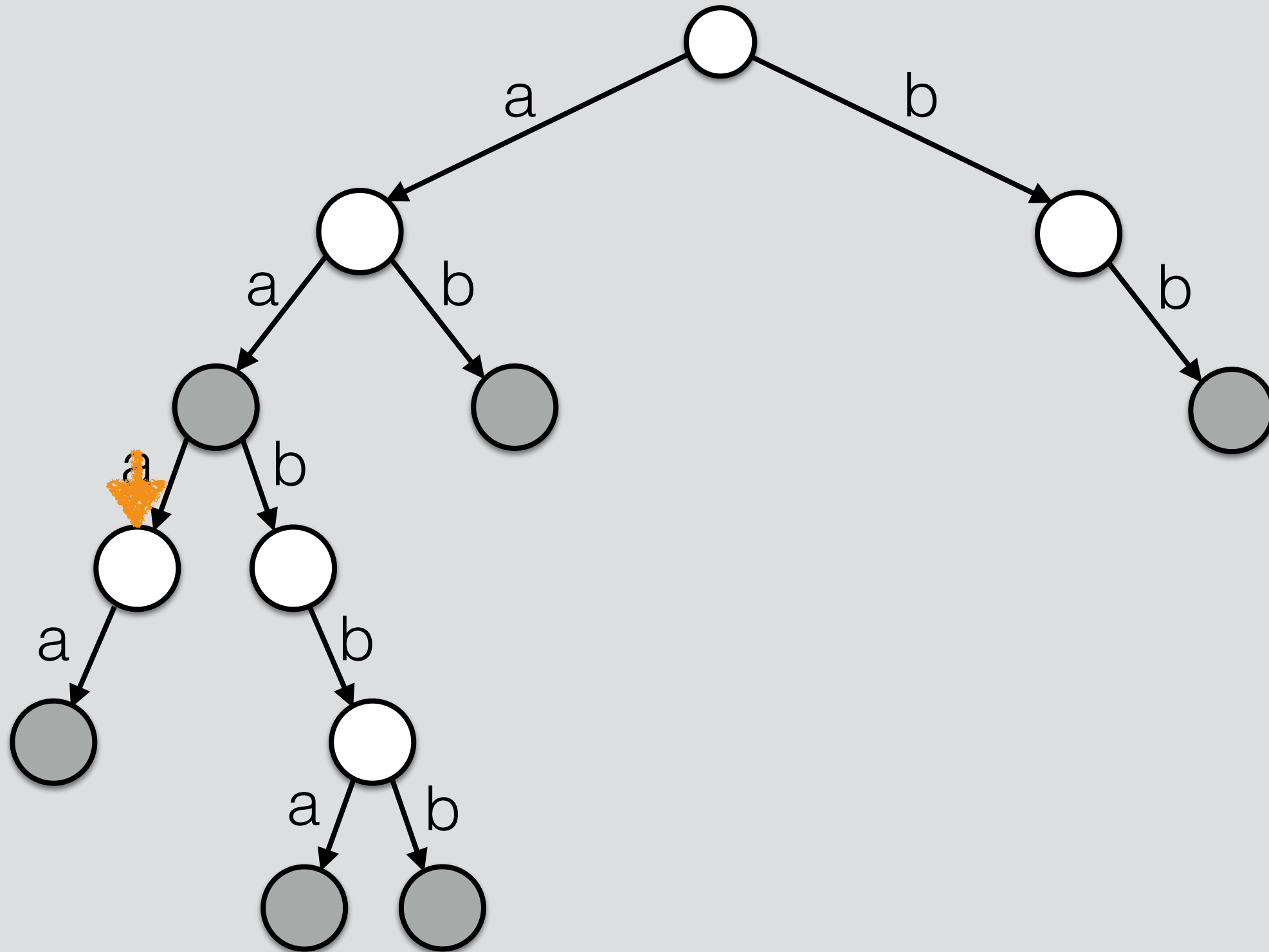
function
call stack



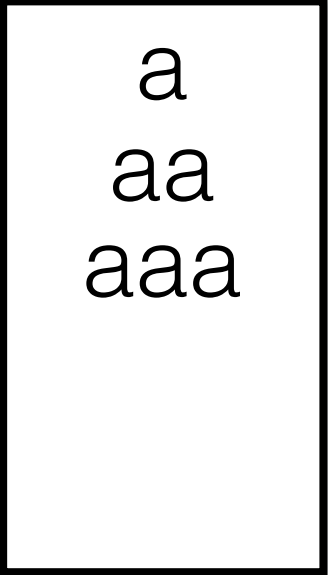
Printing in Sorted Order



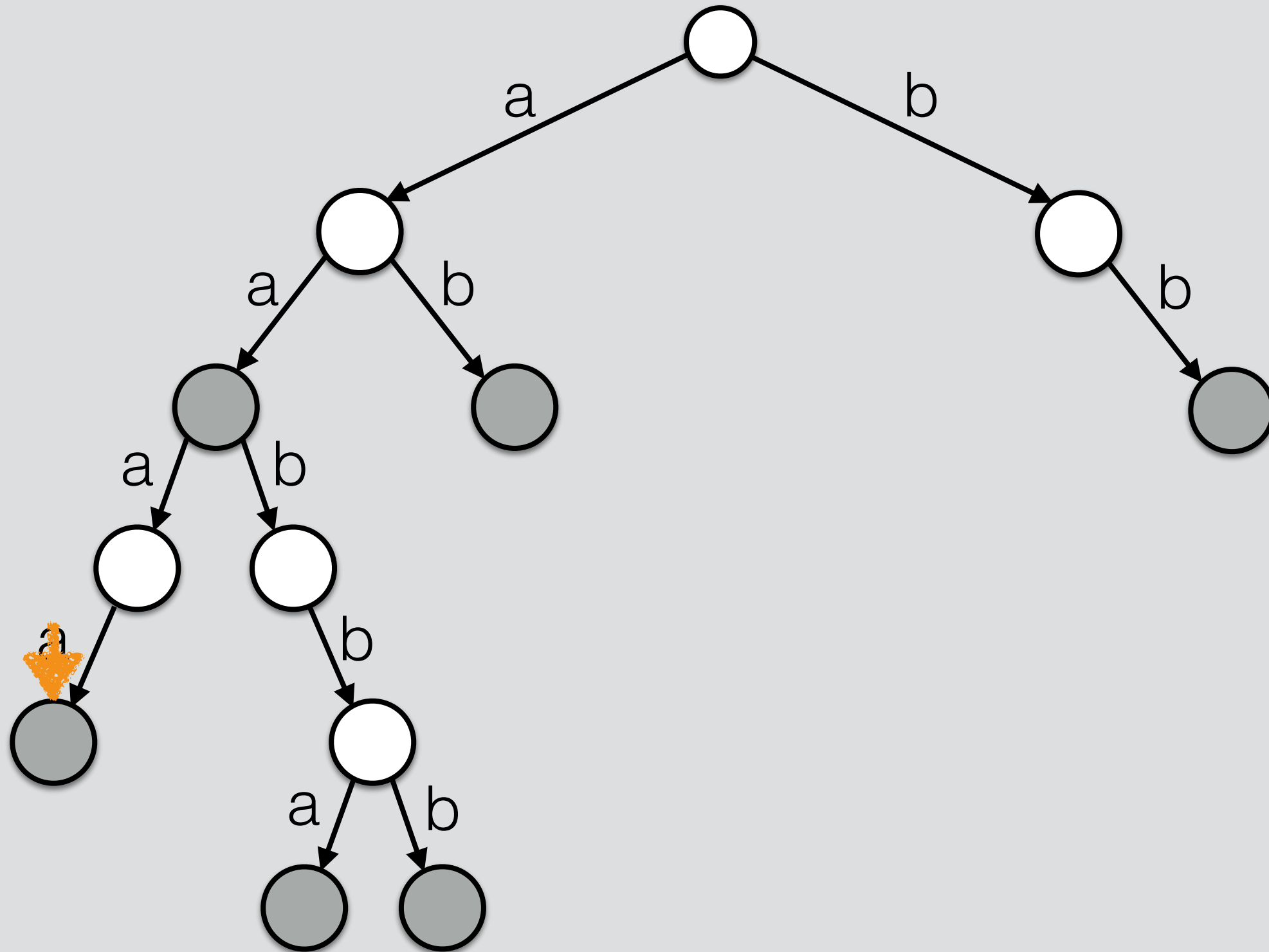
Printing in Sorted Order



function
call stack



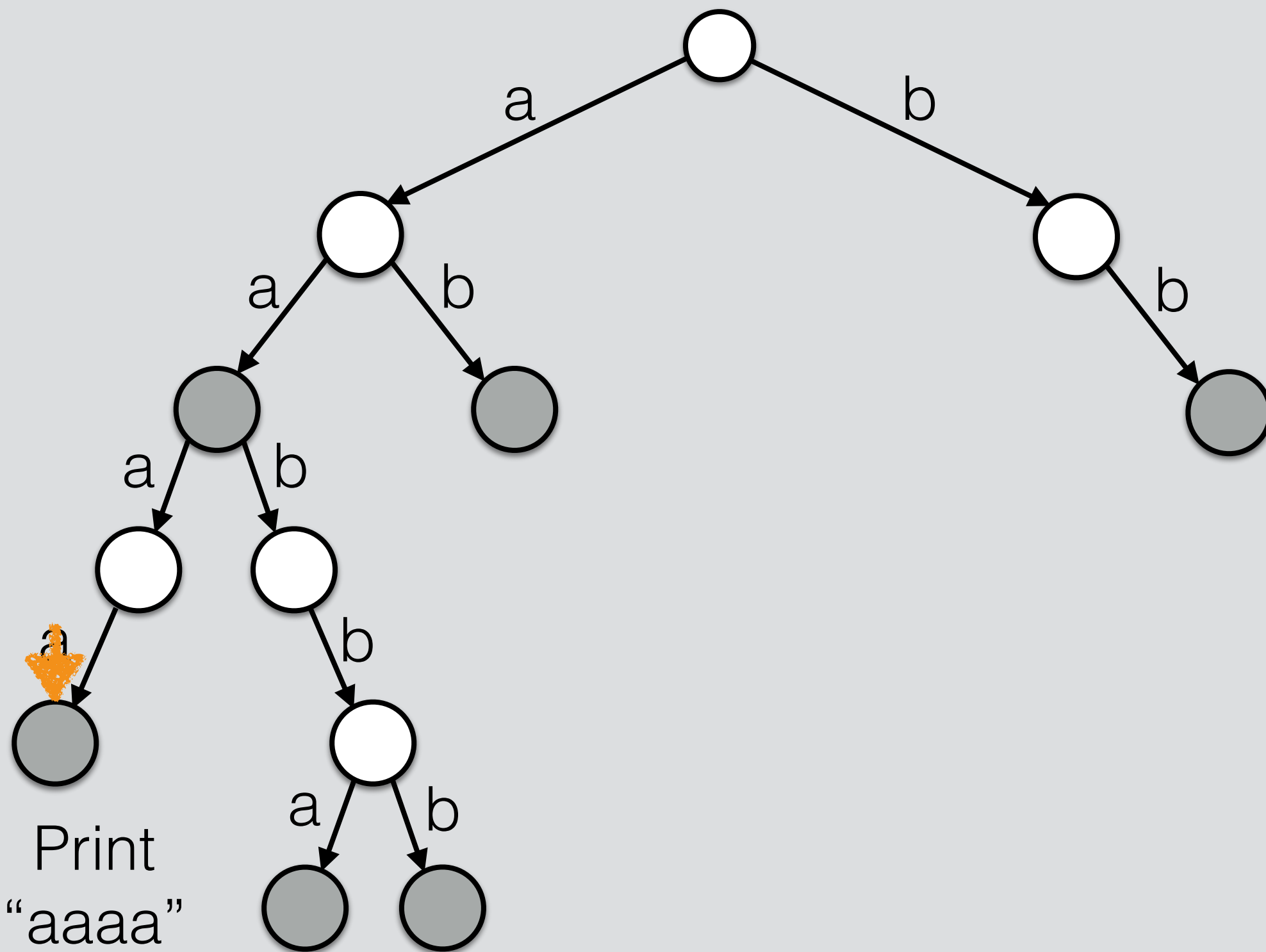
Printing in Sorted Order



function
call stack

```
a  
aa  
aaa  
aaaa
```

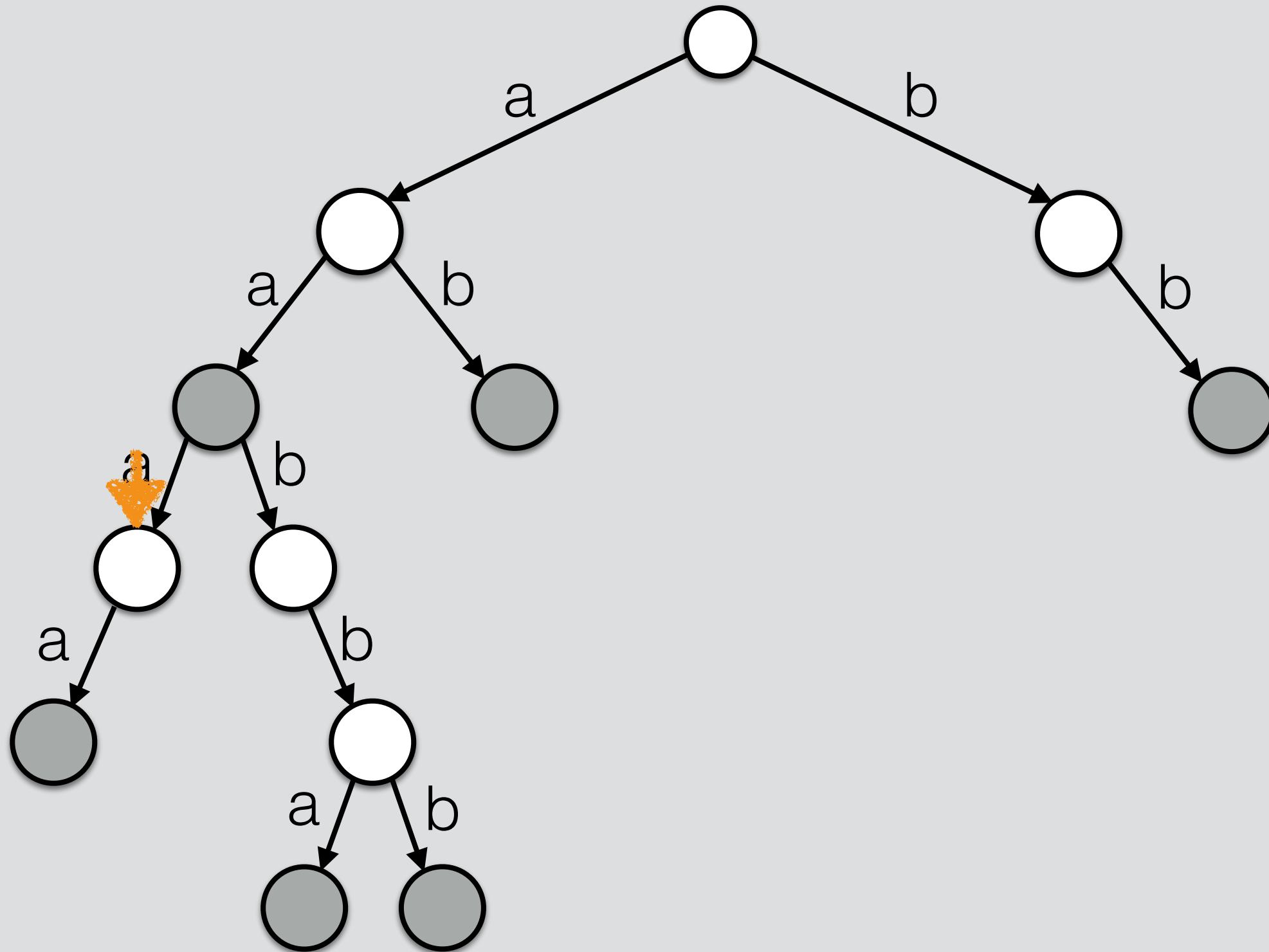

Printing in Sorted Order



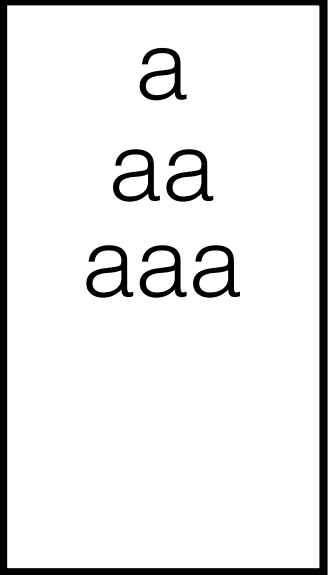
function
call stack

```
a  
aa  
aaa  
aaaa
```

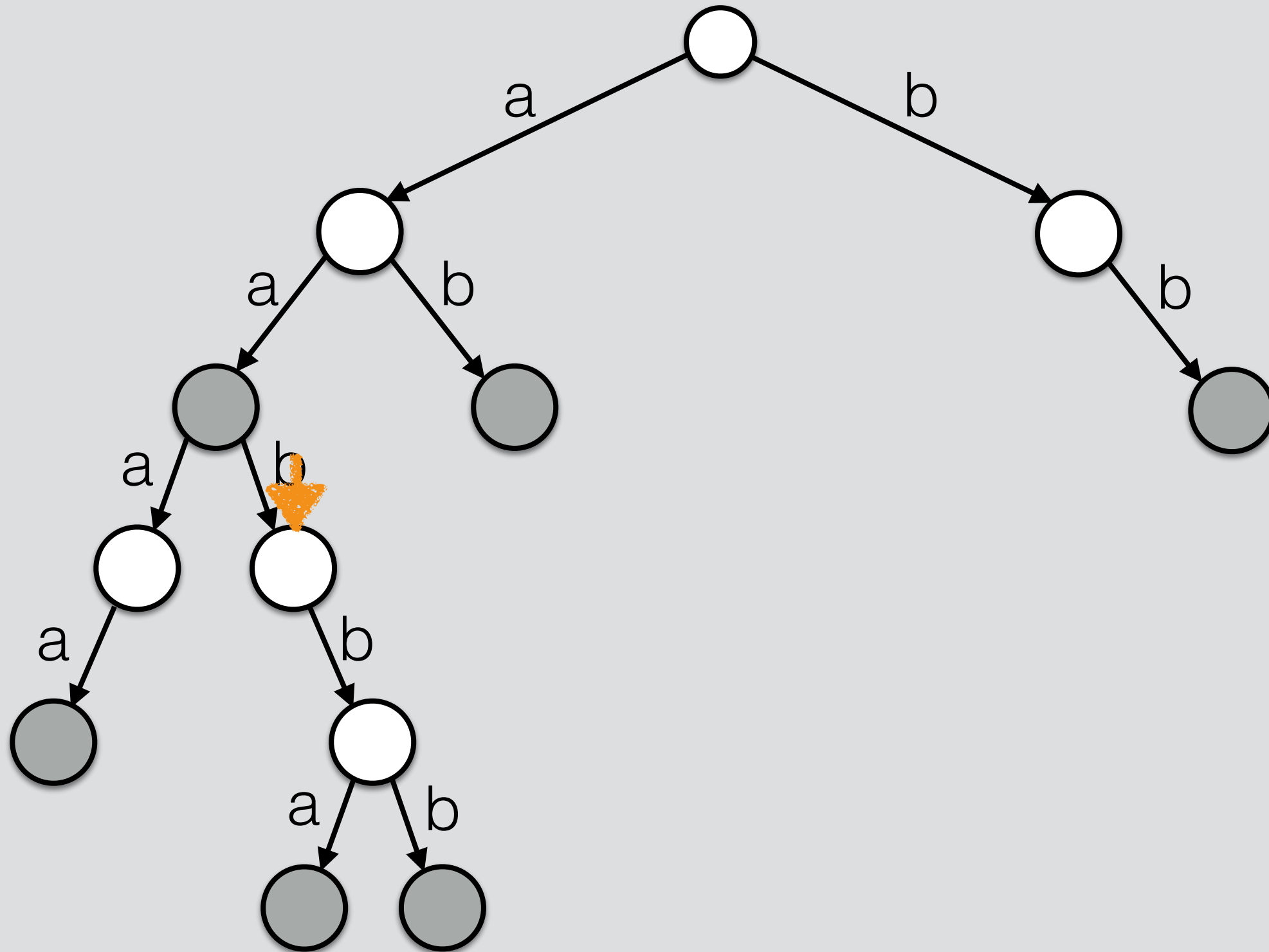
Printing in Sorted Order



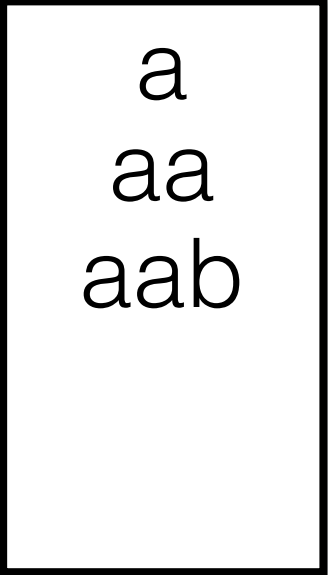
function
call stack



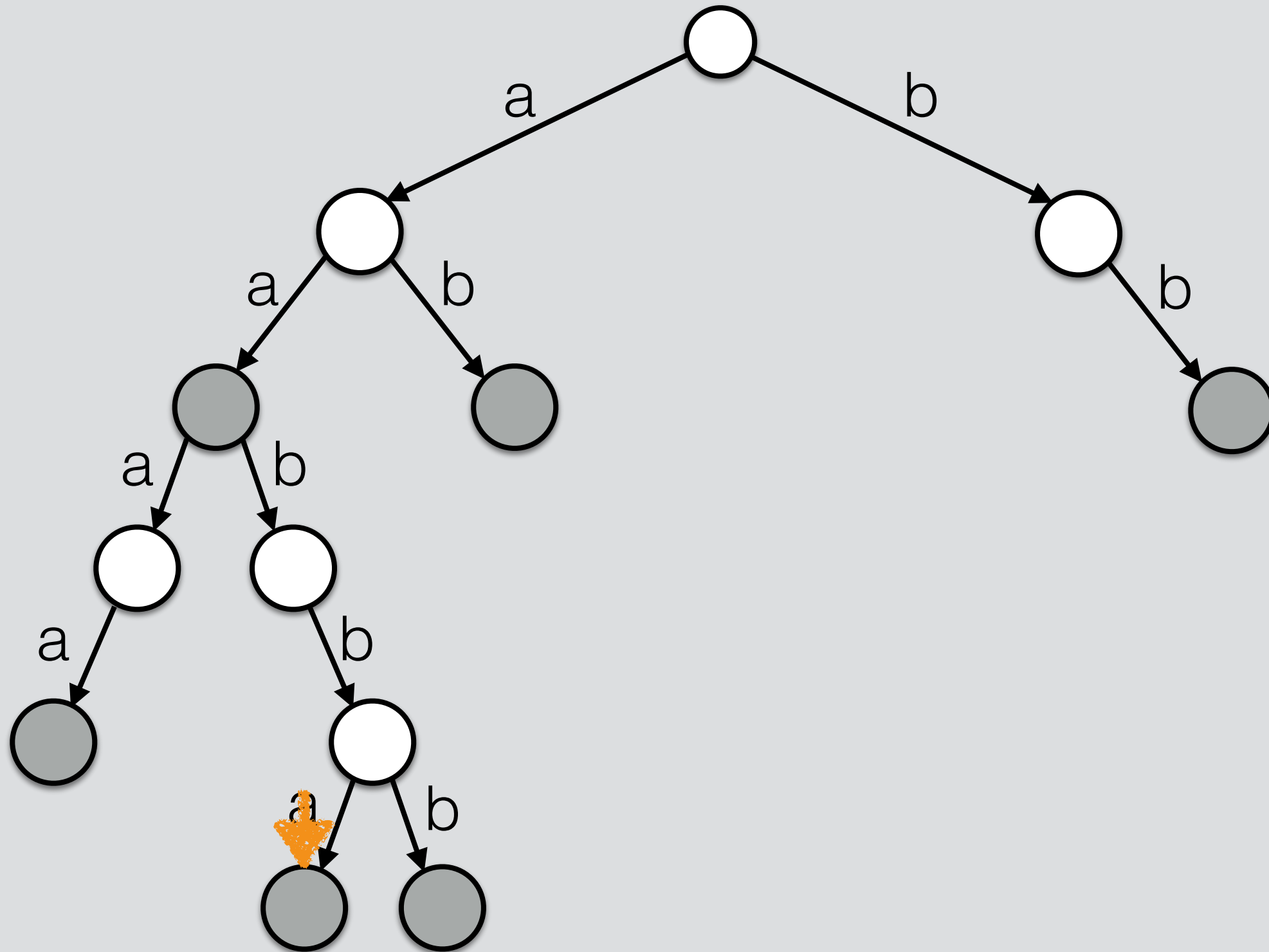
Printing in Sorted Order



function
call stack



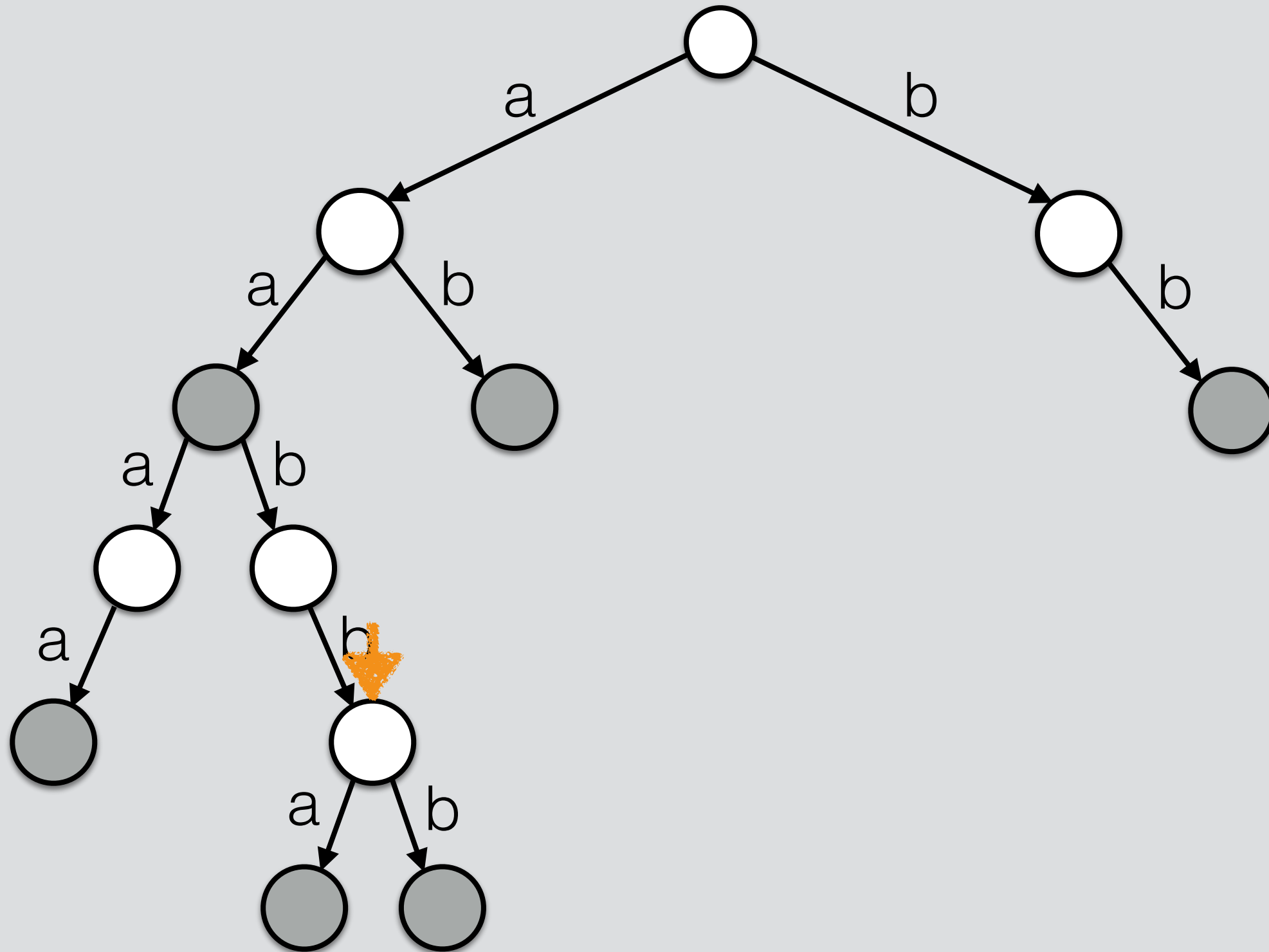
Printing in Sorted Order



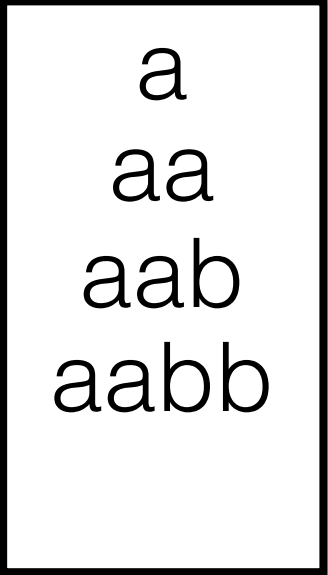
function
call stack

```
a  
aa  
aab  
aabb  
aabba
```

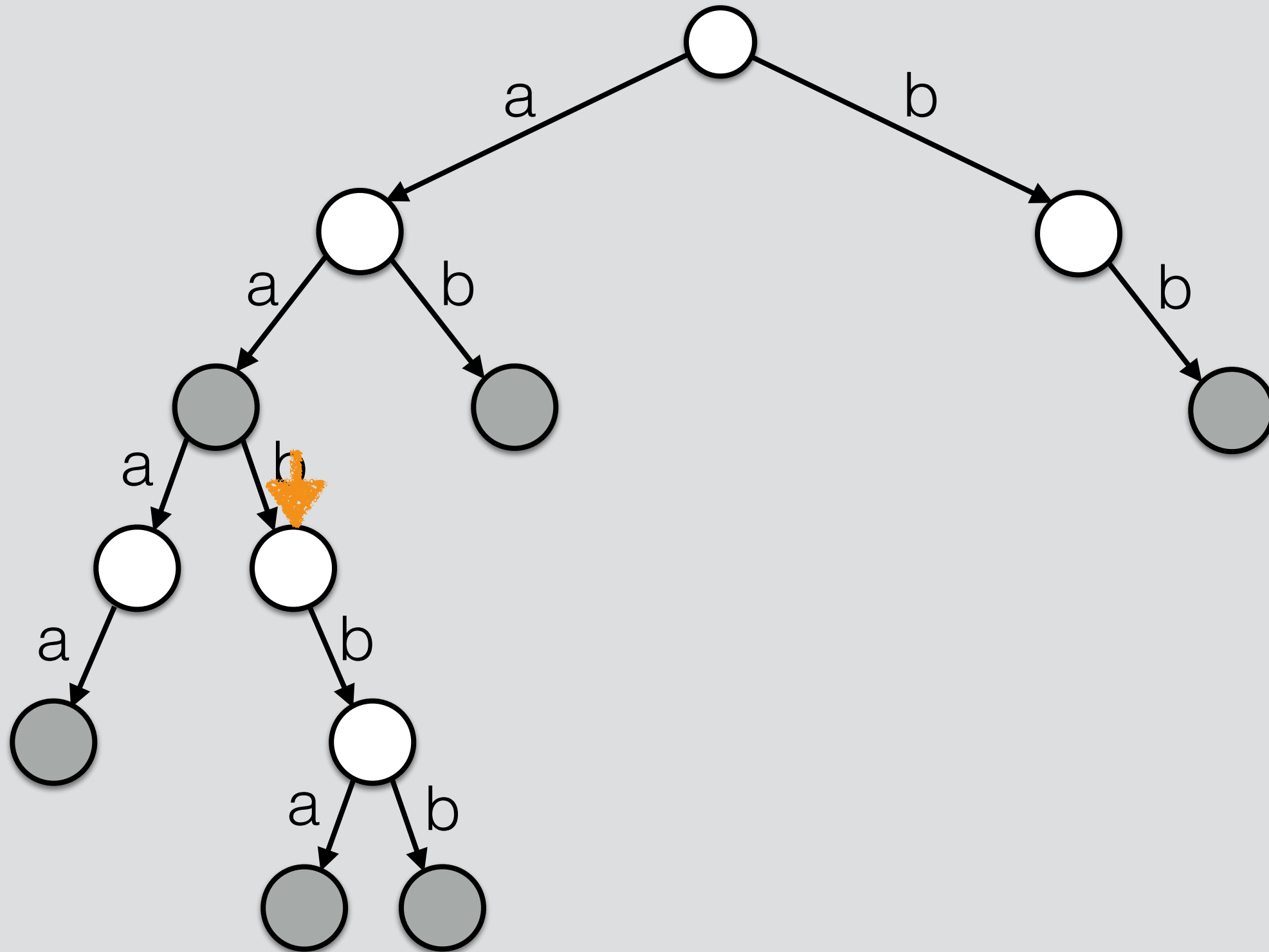

Printing in Sorted Order



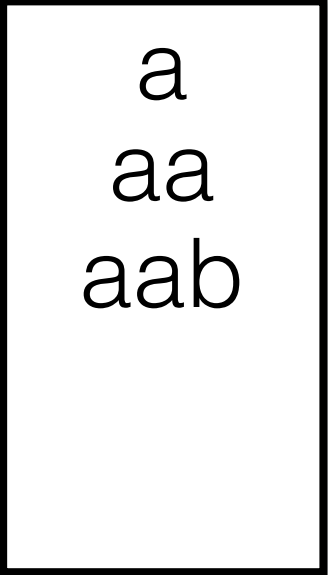
function
call stack



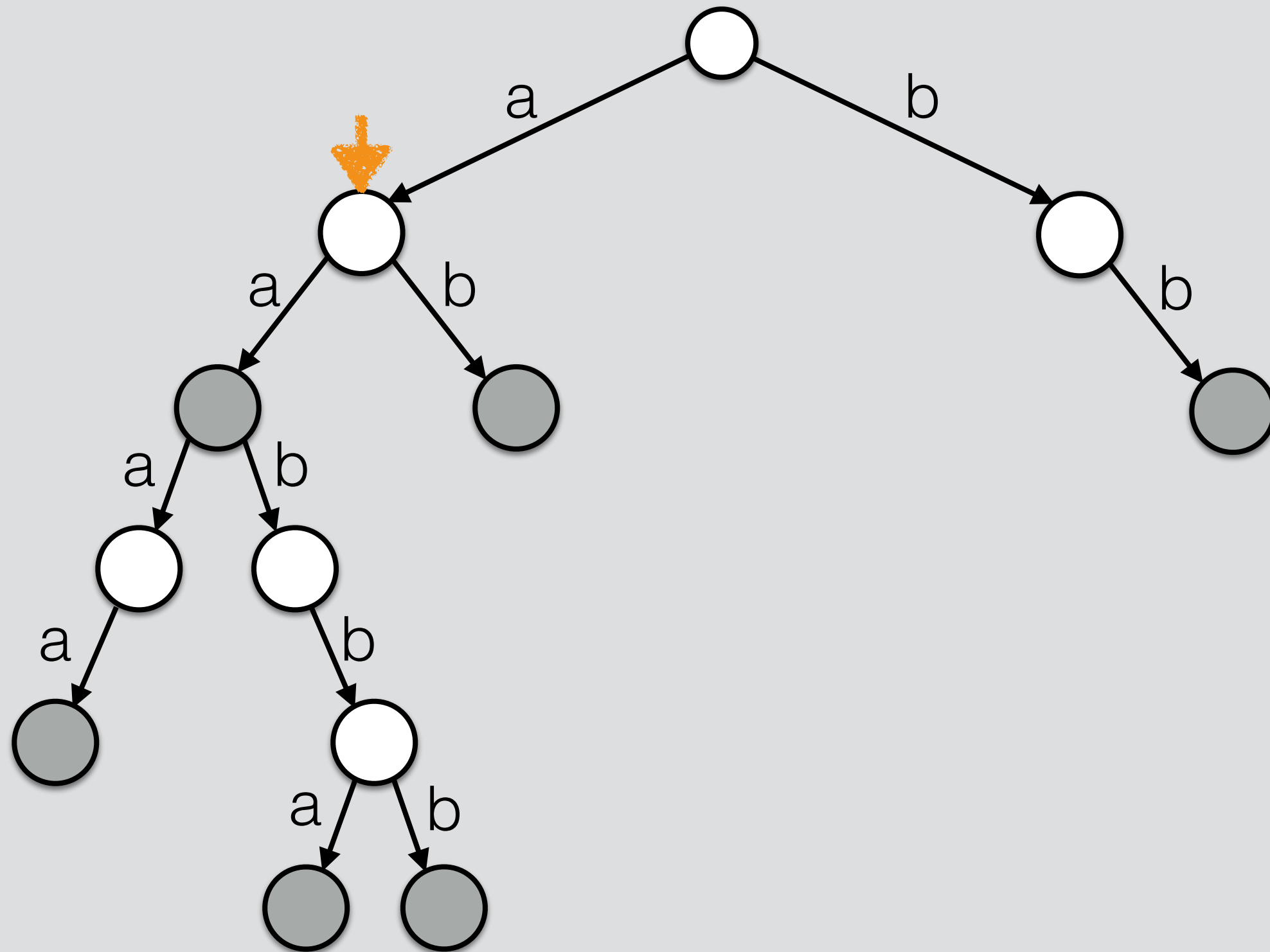
Printing in Sorted Order



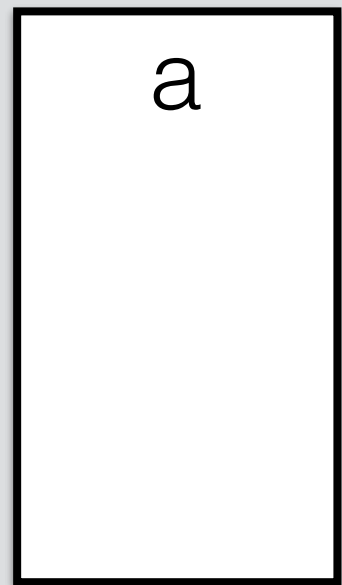
function
call stack



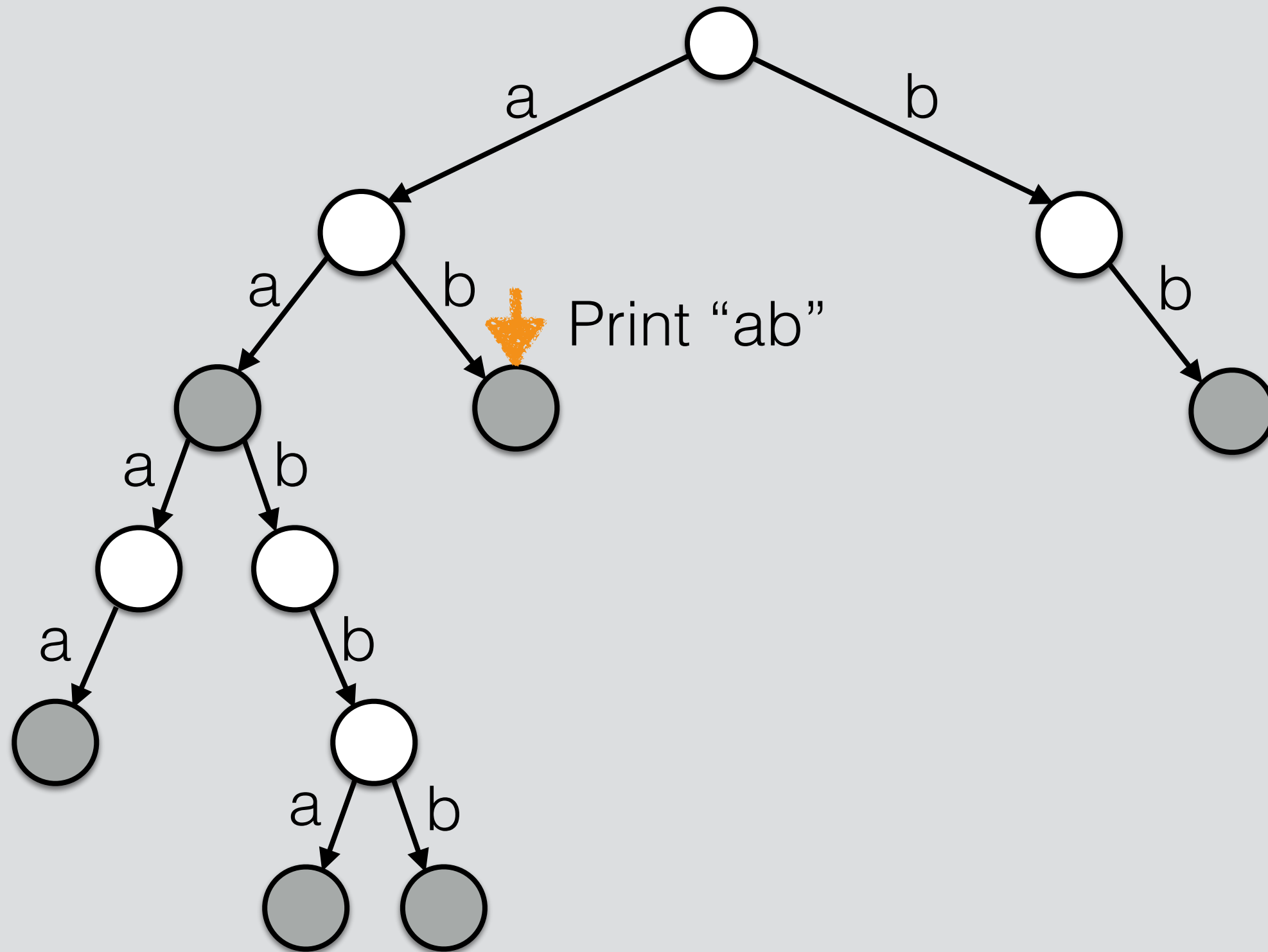
Printing in Sorted Order



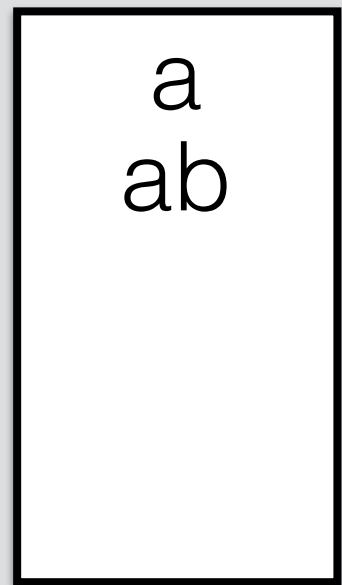
function
call stack



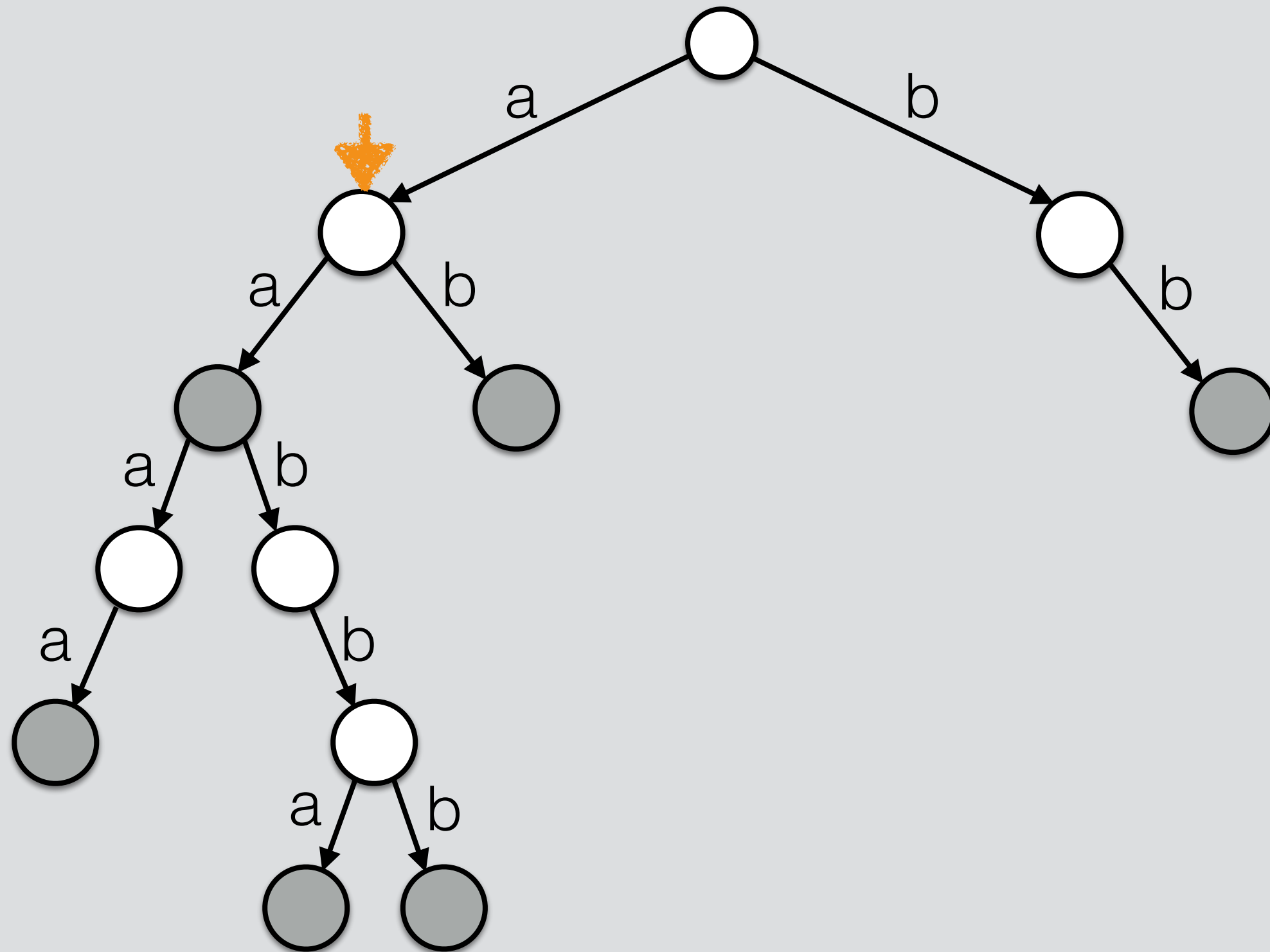
Printing in Sorted Order



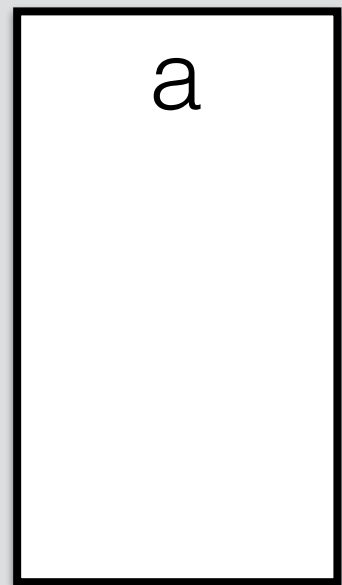
function
call stack



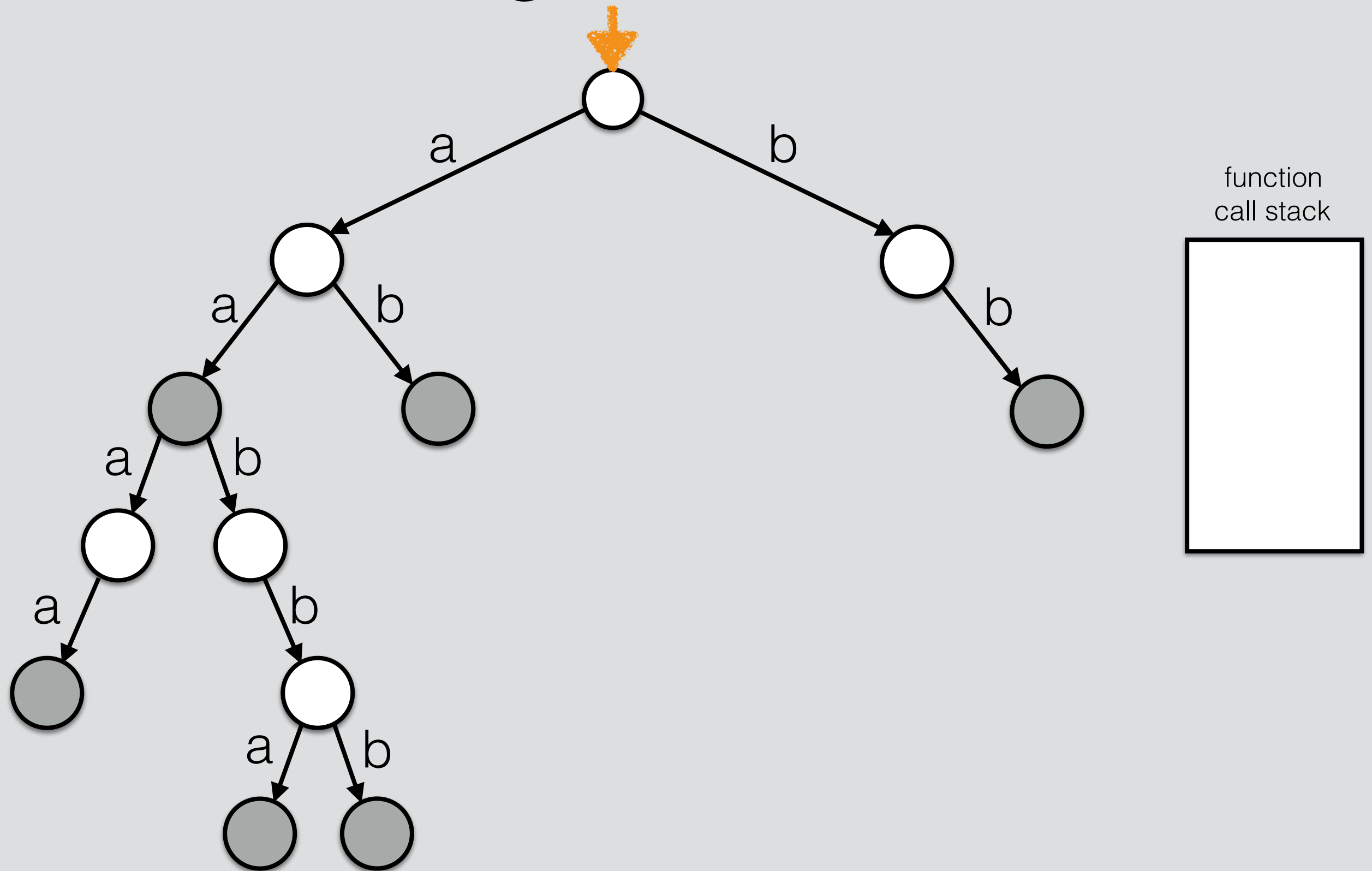
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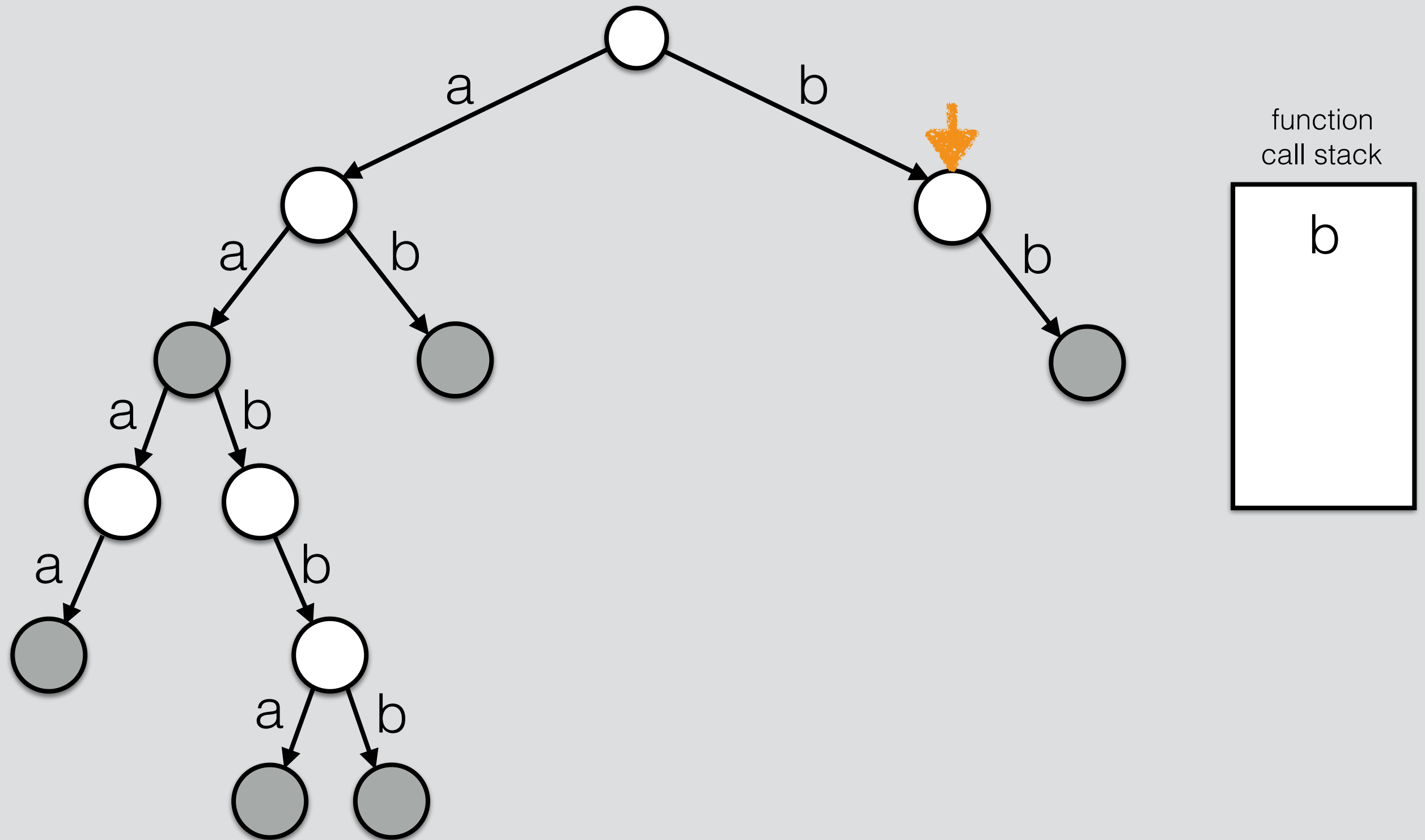
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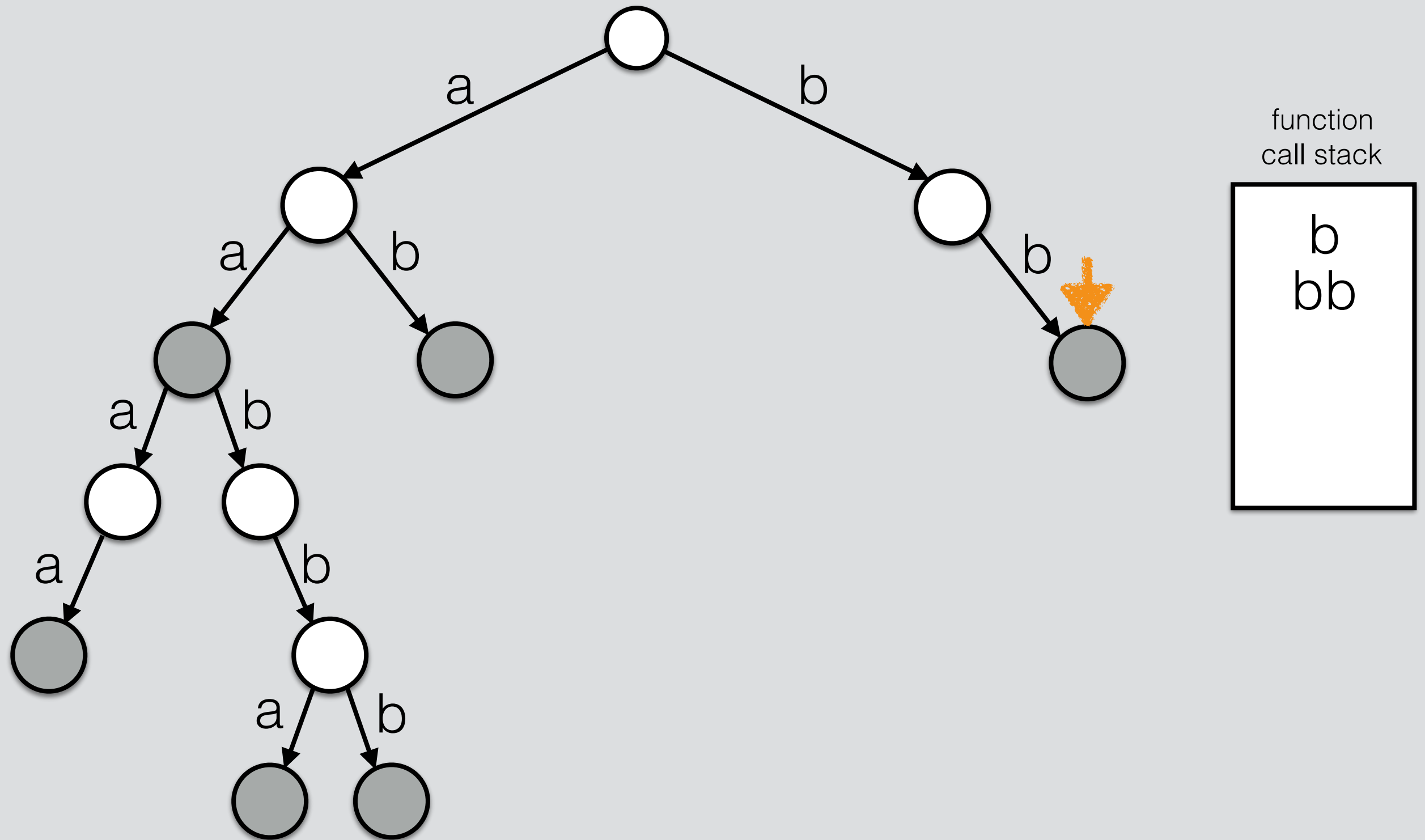
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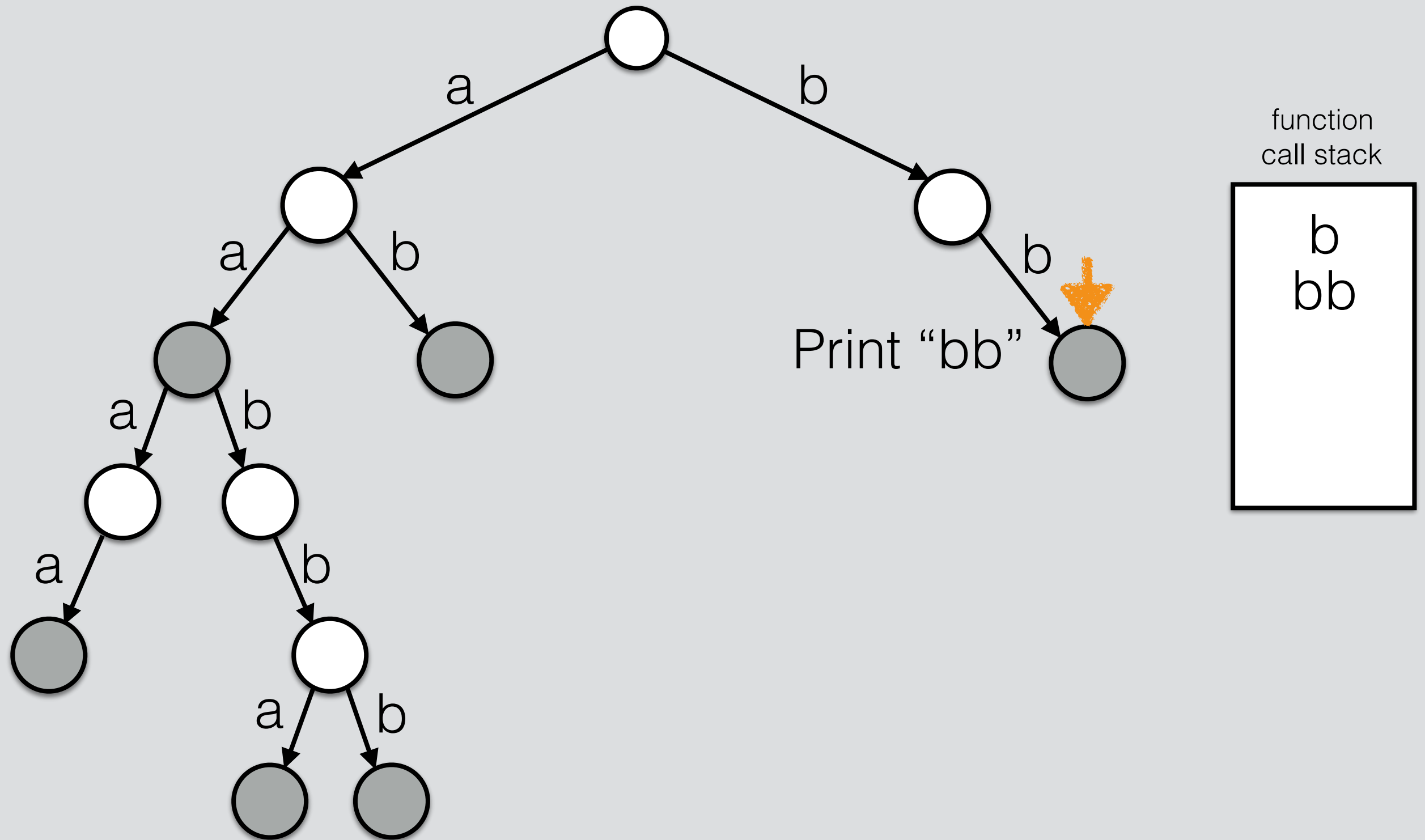
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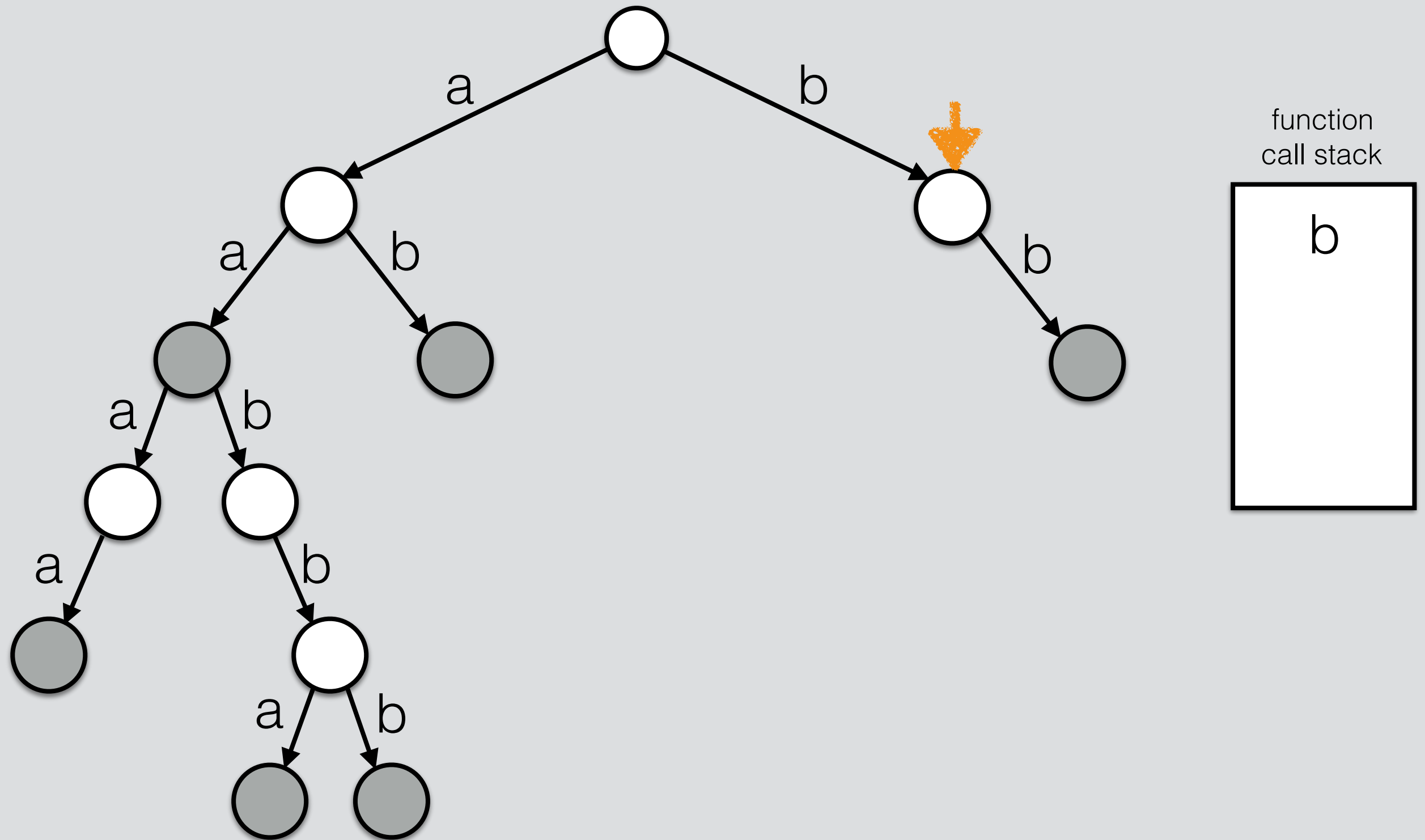
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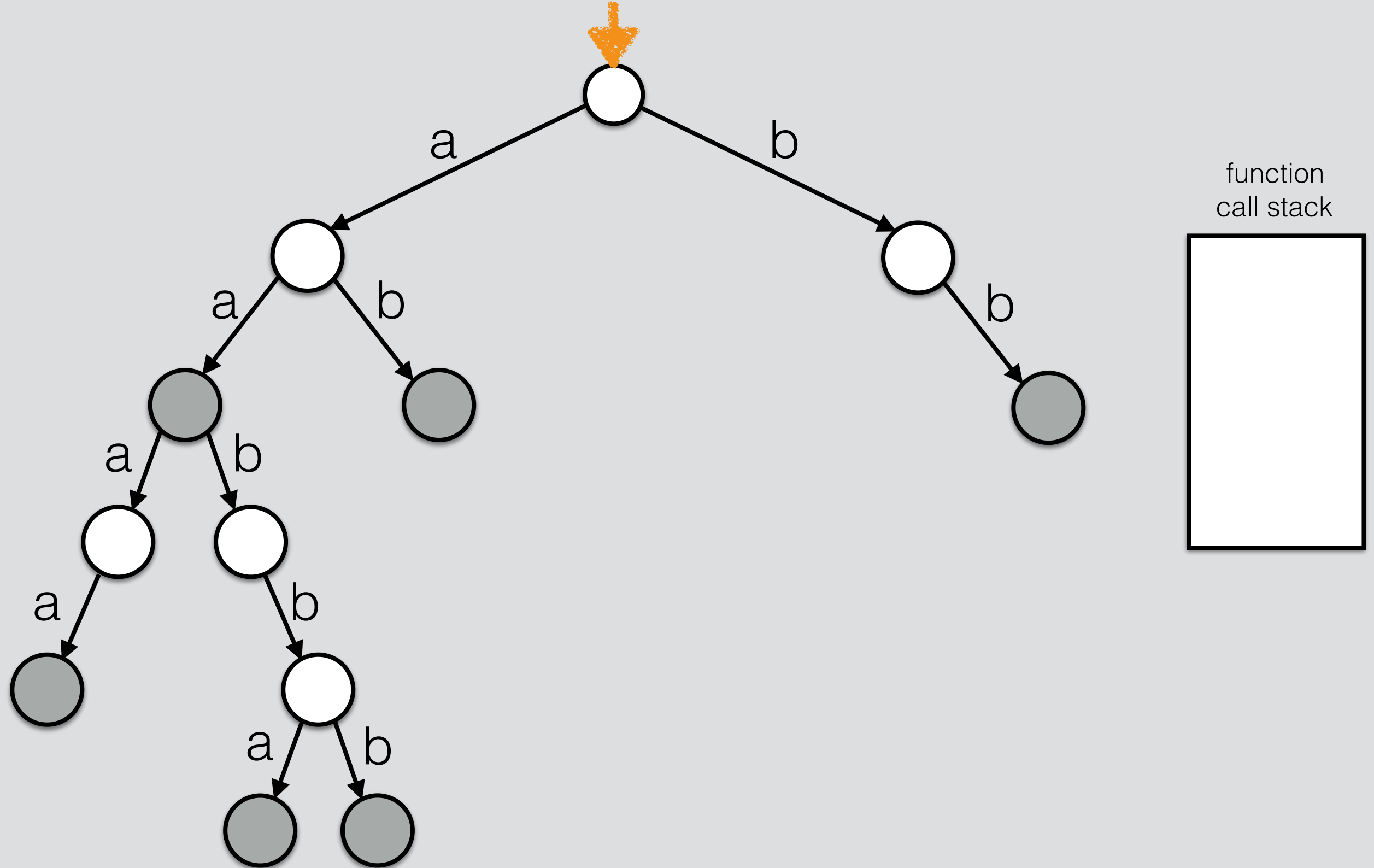
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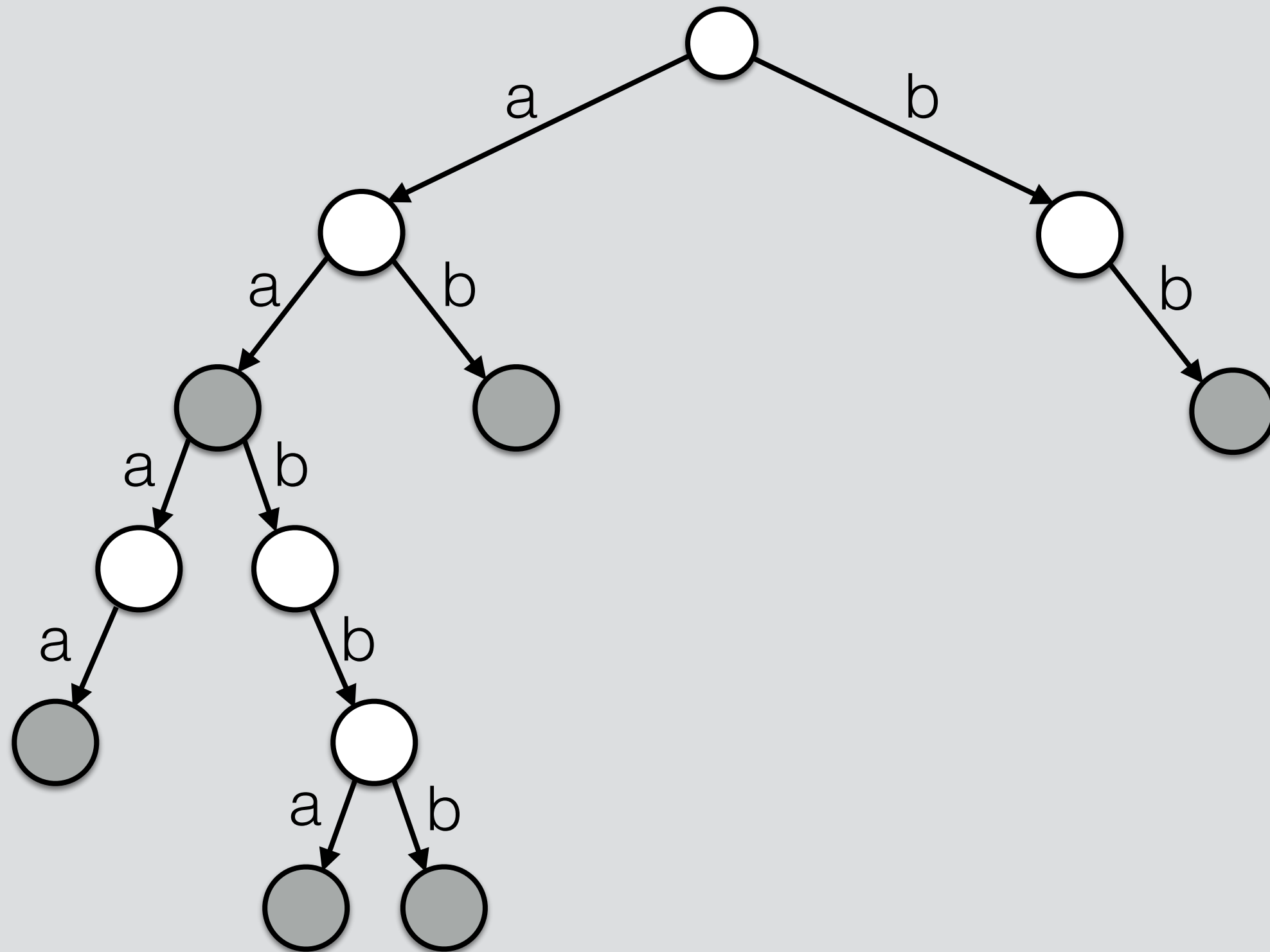
Printing in Sorted Order



Printing in Sorted Order



Printing in Sorted Order



function
call stack

