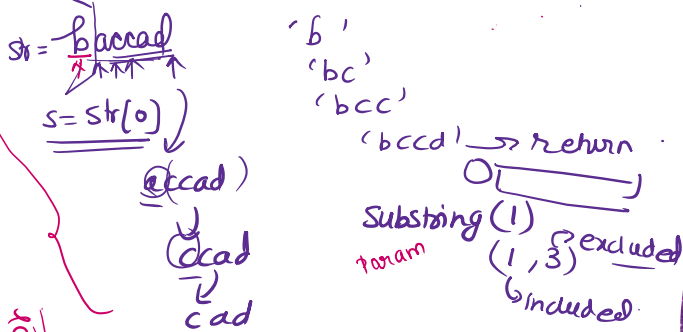


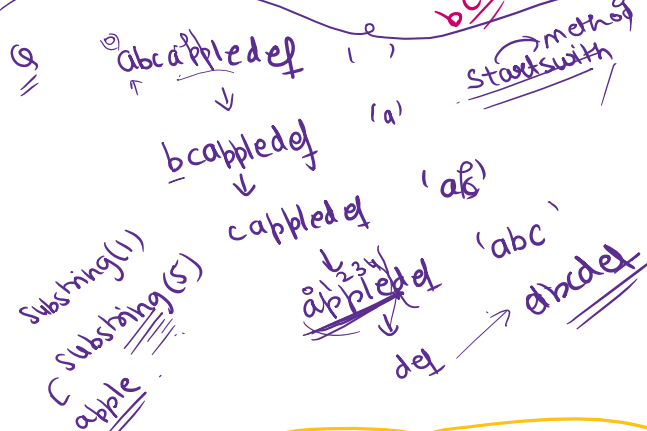
Q. Given a string and you need to remove all a's from it.

str = baccad ans = bccd



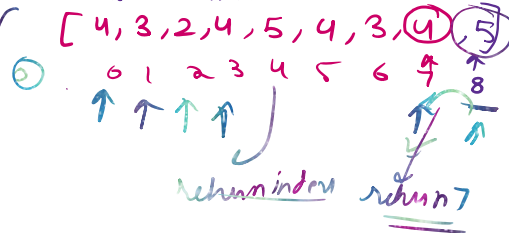
2nd method.

baccad  
b+ (accad)  
↓  
b+ (ccad)  
↓  
b+c+(cad)  
↓  
b+c+c+(ad)  
↓  
bccc+ad  
↓  
bcccad



arr.length

Last occurrence



main() {  
lastOcc(arr[], key, index)

HW.  
Find all the occurrences of a key  
index → array list

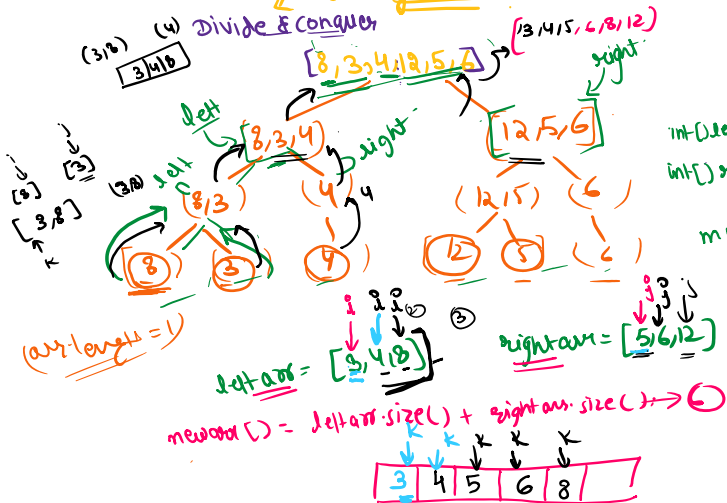
return  
[4, 5, 4, 4, 2, 3, 2]

return

appedel apple

Merge Sort

Divide & Conquer



cnt mid = arr.length/2;  
int left = MS(arr, copy of Range (arr, 0, mid))  
int right = MS(arr, copy of Range (arr, mid, arr.length))  
merge(left, right);

while (leftarr.length & rightarr.length) {  
if (leftarr[i] < rightarr[j]) {  
newarr[k] = leftarr[i];  
i++;  
k++;  
}  
if (rightarr[j] < leftarr[i]) {  
newarr[k] = rightarr[j];  
j++;  
k++;  
}  
}

while (i < leftarr.length) {  
newarr[k] = leftarr[i];  
i++;  
}

2

divide by 2

⇒ 2 option  $\begin{cases} \rightarrow \text{pick} \\ \rightarrow \text{no} \end{cases}$

$$\left[ \begin{array}{ccc} 3, 1, 2 & 3, 2 & 1, \phi \\ & 3 & 2 \\ & & 1, 2 \end{array} \right]$$