

String:

- ⇒ "abcde"
- ⇒ Immutable

String $n = \underline{\text{"abcde"}}$,
 $\underline{n} = \underline{n} + \text{"fgh"}$

String $a = \underline{\underline{\text{"a"}}}$
 $b = \underline{\underline{\text{"a"}}}$

String is a Class:
→ String Builder

Is Palindrome?

1 3 3 1 (\Rightarrow) 1 3 3 1

1 2 3 \neq 3 2 1

int n = 5

n+=10

n=n+10

isPalindromeRev (String s) {

temp = "";
for (i = s.length - 1; i >= 0; i--) {

temp += s.charAt(i);

g
↓

temp = temp + s.charAt(i);

isPalindrome2 (String s) {

1 2 3 4 3 2

1 2 3 4

temp = "4 3 2 1";

for (
 $\underline{\underline{0 - 1}}$ to 0) {

... s.charAt(i);

"

$\text{top} = \text{s.charAt}(i)$

$\left\{ \begin{array}{l} \\ i \geq 0 \end{array} \right.$

Toggle Case -

KRish = KnSH

$$\begin{array}{r}
 \cancel{a} + \cancel{A} \\
 \cancel{1} + \cancel{80} - \cancel{x} = 80 \\
 \cancel{4} + \cancel{80} - \cancel{1} \\
 \hline
 \cancel{84} + \cancel{1} - \cancel{80} = 5
 \end{array}$$

$$\begin{array}{r}
 \cancel{a} ! = \cancel{A} \\
 \cancel{1} \\
 \cancel{8} = 4 \\
 \hline
 1 - 2^6 \\
 0 - 3
 \end{array}
 \quad
 \begin{array}{r}
 D \\
 \cancel{83} \\
 \cancel{80} - \cancel{105} \\
 A - \cancel{2}
 \end{array}$$

$$\begin{array}{r}
 E = 84 \\
 C = 5
 \end{array}$$

$$\begin{array}{r}
 \cancel{a} \cancel{b} \cancel{c} \cancel{D} \\
 \cancel{a} \cancel{b} \cancel{c} \cancel{D} \\
 \cancel{a} \cancel{b} \cancel{c} \cancel{D} \\
 \cancel{a} \cancel{b} \cancel{c} \cancel{D}
 \end{array}$$

$$\begin{array}{r}
 a = \cancel{q}^7 \\
 b = \cancel{6}^6 \\
 c = \cancel{q}^4 \\
 \downarrow D = 68
 \end{array}$$

$$\begin{array}{r}
 A = \cancel{5}^5 \\
 Z = \cancel{q}^1 \\
 a = \cancel{q}^7 \\
 z = \cancel{1}^2 \cancel{3}
 \end{array}$$

```

public static void toggleCase(String s) {
    String res = "";
    for (int i = 0; i < s.length(); i++) {
        if (s.charAt(i) >= 'A' && s.charAt(i) <= 'Z') {
            res += (char) (s.charAt(i) + 'a' - 'A');
        } else if (s.charAt(i) >= 'a' && s.charAt(i) <= 'z') {
            res += (char) (s.charAt(i) + 'A' - 'a');
        }
    }
    System.out.println(res);
}

```

$$\begin{array}{r}
 \cancel{a} \cancel{b} \dots \cancel{z} \\
 \cancel{1} \cancel{2} \dots \cancel{26}
 \end{array}$$

$$\begin{array}{r}
 \cancel{z} \\
 \cancel{26}
 \end{array}$$

$$\begin{array}{r}
 \cancel{a} ! = \cancel{A} \\
 \cancel{b} = \cancel{B}
 \end{array}$$

$$\begin{array}{r}
 \begin{array}{c} 1 \\ \underline{80} \\ \underline{81} \end{array} & \begin{array}{c} 2 \\ \underline{105} \end{array} & \begin{array}{c} 'b' \Rightarrow 'B' \\ \underline{81} \end{array} \\
 'A' & 'B' & \\
 \underline{80} & \underline{81} & \\
 \begin{array}{c} 'C' 'A' 'a' \\ \underline{3} + \underline{80} - \underline{1} = 81 \end{array} & & \begin{array}{c} 'C' 'a' \\ \underline{82} = \underline{3} \end{array} \\
 \begin{array}{c} 'C' 'a' \\ \underline{82} + \underline{1} - \underline{80} = 3 \end{array} & & \\
 \begin{array}{c} 'C' 'D' \\ \underline{a} \underline{B} \underline{C} \underline{D} \\ \underline{i} \end{array} & \text{res} = \underline{\underline{\underline{A b C d}}} &
 \end{array}$$

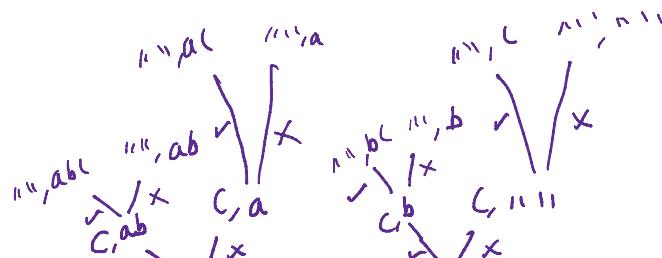
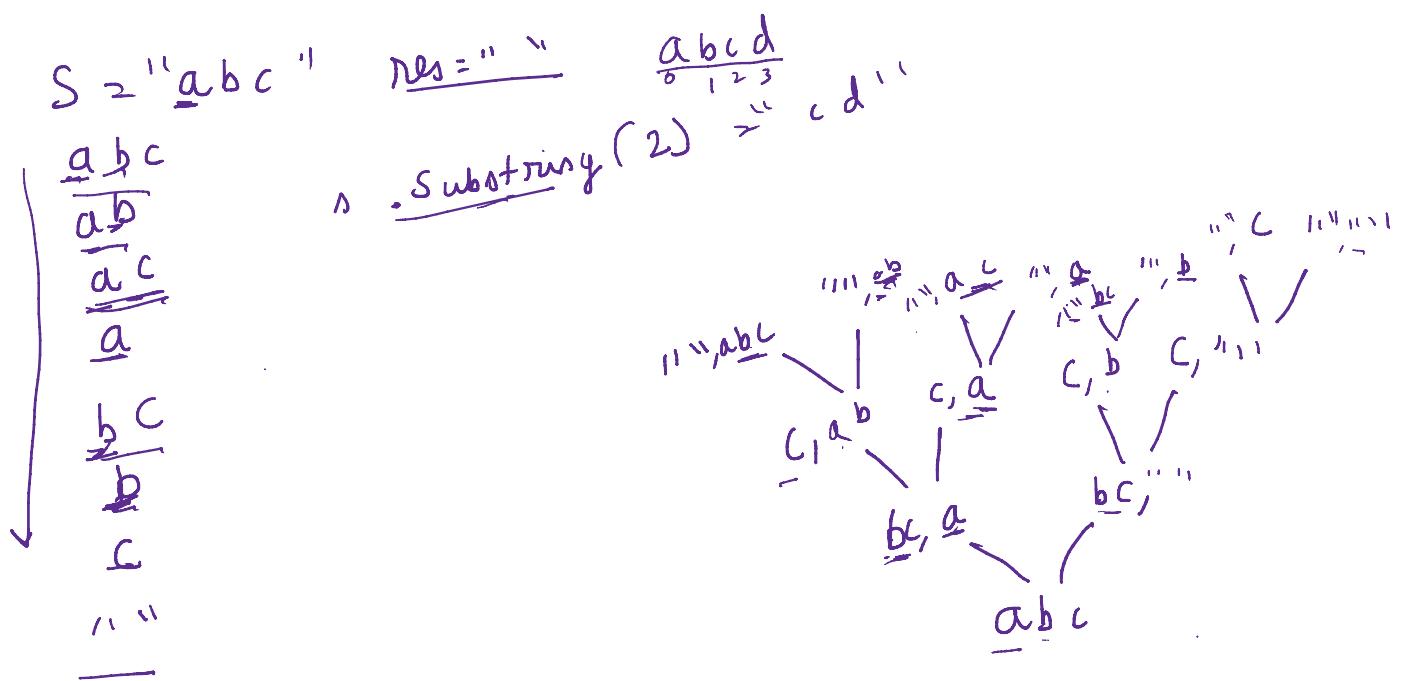
$i \neq x \neq 3$

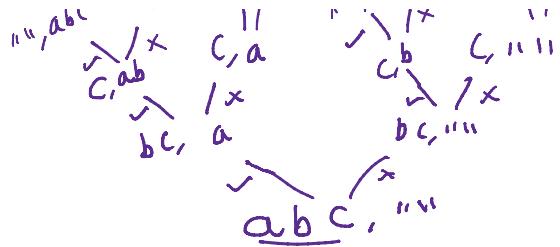
```

public static void toggleCase(String s) {
    String res = "";
    for (int i = 0; i < s.length(); i++) {
        if (s.charAt(i) >= 'A' & s.charAt(i) <= 'Z') {
            res += (char) (s.charAt(i) + 'a' - 'A');
        } else if (s.charAt(i) >= 'a' & s.charAt(i) <= 'z') {
            res += (char) (s.charAt(i) + 'A' - 'a');
        }
    }
    System.out.println(res);
}

```

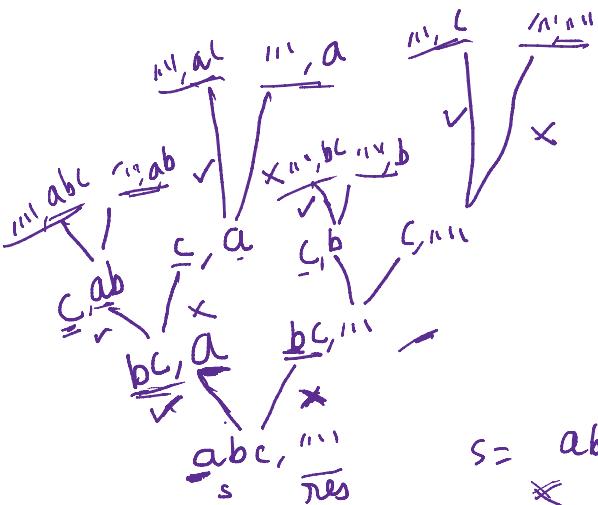
Print Subsequence





abcde

abc



$s = \underline{abc}$
 $\times \underline{bcde}$

```
public static void printSubSeqRec(String s, String res) {
    if (s.length() == 0) {
        System.out.println(res);
        return;
    }
    char curr = s.charAt(0);
    //Accepting the curr character
    printSubSeqRec(s.substring(1), res + curr);
    //Rejecting the curr character.
    printSubSeqRec(s.substring(1), res);
}
```

$s = \underline{abc}$
 $\times \underline{bcde}$

a b c
a b
a
b
c