

Substring :  $\rightarrow$  It is continuous part of string.

String str = "Example";

Possible Substrings ③

① E m e , Ex , le , Exa ple (4) ampl mple  
 x p , xg , xam Exam  
 a l , mp amp xamp  
 Examp Ex<sup>⑤</sup>ampl Example ⑥  
 xampl  
 ample

Substring()  $\rightarrow$  Return type is String

substring(int beginIndex)  $\rightarrow$  starting from beginIndex to last Index

substring(int beginIndex, int endIndex)

$\rightarrow$  starting from beginIndex to before endIndex

String str = "abc<sup>1 2 3 4 5</sup>def";

String str2 = str.substring(2);  
 S.o.p ln(str2)

Output cdef

String str3 = str.substring(1, 2);  
 S.o.p ln(str3)

String str3 -  
S.O.P1n (str3)

Output

6

Print all substring of a string

String str = "Jay";

Possible substrings are:-

J, a, y, Ja, ay, Jay →

J      a      y  
Ja      ay

str.substring(0, 1) → J

str.substring(0, 2) → Ja

str.substring(0, 3) → Jay

{ 0, 1 to 3

str.substring(1, 2) → a

str.substring(1, 3) → ay

{ 1, 2 to 3

str.substring(2, 3) → y

{ 2, 3 to 3

i = 0

i = 1

i = 2

j = 1 to 3

j = 2 to 3

j = 3 to 3

i = 0

i = 1

i = 2

j = (i+1) to str.length()

j = (i+1) to str.length()

j = (i+1) to str.length()

```
for (int i = 0; i < str.length(); i++) {
    for (int j = i+1; j <= str.length(); j++) {
        . . .
    }
}
```

```
for (int j = 1; j < str.length(); j++)  
    s-o-plm( str.substring(i, j) );  
}
```

# Sum of all substring

Language: Java 8

```
1 import java.io.*;
2 import java.util.*;
3
4 public class Solution {
5
6     public static void main(String[] args) {
7         /* Enter your code here. Read input from STDIN. Print output
8         Scanner sc = new Scanner(System.in);
9         String str = sc.next();
10        int sum =0;
11        for(int i=0;i<str.length();i++){
12            for(int j=i+1;j<=str.length();j++){
13                sum+= Integer.parseInt(str.substring(i,j));
14            }
15        }
16        System.out.println(sum);
17    }
18 }
```

# Desired String

String str = "ABADA";

$\overset{1}{\curvearrowright} A(0,1) \quad \overset{2}{\curvearrowright} B(1,2) \quad \overset{3}{\curvearrowright} A(2,3) \quad \overset{4}{\curvearrowright} D(3,4) \quad \overset{5}{\curvearrowright} A(4,5)$   
 $\times AB(0,2) \quad BA(1,3) \quad AD(2,4) \quad DA(3,5)$   
 $\checkmark \underline{ABA}(0,3) \quad BADA(1,4) \quad \checkmark ADA(2,5)$   
 $\underline{ABAD}(0,4) \quad BADA(1,5)$   
 $\checkmark \underline{ABADA}(0,5) \quad \nearrow \underline{str.charAt(0) \rightarrow A}$

str.substring(0, 3)

str.substring(0, 5)

```
int count=0, int maxLength=Integer.MIN-VALUE; String maxSubs="";
for(int i=0; i<n; i++) {
```

```
    if(str.charAt(i)=='A') {
```

```
        for(int j=i+1; j<=n; j++) {
```

```
            if(str.charAt(j-1)=='A' && j-1!=i) {
```

```
                count++;
```

```
                String subs = str.substring(i, j);
```

```
                if (subs.length() > maxLength) {
```

```
                    maxLength = subs.length();
```

```
                    maxSubs = subs;
```

```
                }
```

```
            }
```

```

}
}

```

```

S.o.println(count);
S.o.println( maxLength);
S.o.println( maxsubs);

```

```

1 import java.io.*;
2 import java.util.*;
3
4 public class Solution {
5
6     public static void main(String[] args) {
7         /* Enter your code here. Read input from STDIN. Print output to STI
8         Scanner sc = new Scanner(System.in);
9         String str = sc.next();
10        int n = str.length();
11        int count =0;
12        int maxlen = Integer.MIN_VALUE;
13        String maxsubs="";
14        for(int i=0;i<n;i++){
15            if(str.charAt(i)=='A'){
16                for(int j=i+1;j<=n;j++){
17                    if(str.charAt(j-1)=='A' && j-1!=i ){
18                        count++;
19                        String sub= str.substring(i,j);
20                        if(sub.length()>maxlen){
21                            maxlen= sub.length();
22                            maxsubs=sub;
23                        }
24                    }
25                }
26            }
27        }
28        if(count==0){
29            System.out.println(-1);
30        }else{
31            System.out.println(count);
32            System.out.println(maxlen);
33            System.out.println(maxsubs);
34        }
35    }
36 }

```