Strings in Java are Immutable

Heap

ing str = "h";

str + "e" ⟹ he

str + "l" ⟹ hel

str + "l" ⟹ hell
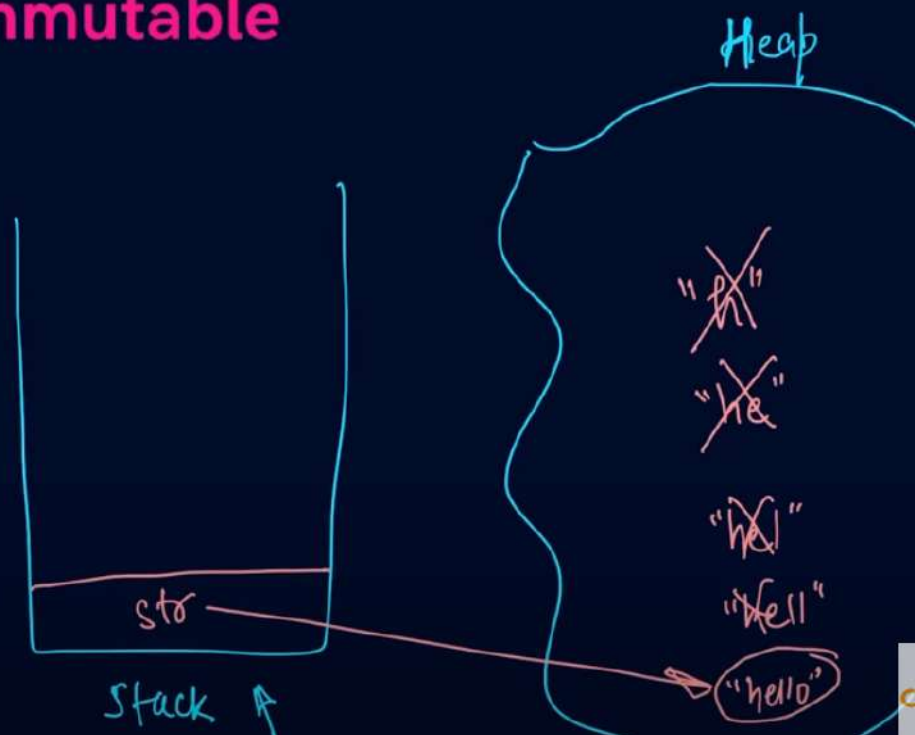
str ⟹ hello

"h"

"he"

"hel"

"hell"

"hello"

str

Stack

```java
import java.util.*;

public class Strings {
    Run | Debug
    public static void main(String args[]) {
        StringBuilder sb = new StringBuilder("Tony");
        System.out.println(sb);

        //char at index 0
        System.out.println(sb.charAt(0));
    }
}
```

```java
//set char at index 0
sb.setCharAt(0, 'P');
System.out.println(sb);
```

```java
public class Strings {
    Run | Debug
    public static void main(String args[]) {
        StringBuilder sb = new StringBuilder("Tony");
        System.out.println(sb);

        sb.insert(0, 'S');
        System.out.println(sb);
    }
}
```

```java
import java.util.*;

public class Strings {
    Run | Debug
    public static void main(String args[]) {
        StringBuilder sb = new StringBuilder("Tony");
        System.out.println(sb);

        sb.insert(2, 'n');
        System.out.println(sb);
    }
}
```

```java
//delete the extra 'n'
sb.delete(2, 3);
System.out.println(sb);
```

```java
sb.insert(2, 'n');
System.out.println(sb);

//delete the extra 'n'
sb.delete(2, 4);
System.out.println(sb);
```

```java
public static void main(String args[]) {
    StringBuilder sb = new StringBuilder("h");
    sb.append("e"); //str = str + "e";
    sb.append("l"); // str = str + "l";
    sb.append("l");
    sb.append("o");
    System.out.println(sb);
}
```

```java
public static void main(String args[]) {
    StringBuilder sb = new StringBuilder("h");
    sb.append("e"); //str = str + "e";
    sb.append("l"); // str = str + "l";
    sb.append("l");
    sb.append("o");
    System.out.println(sb.length());
}
```

```java
public static void main(String args[]) {
    StringBuilder sb = new StringBuilder("hello");

    for(int i=0; i<sb.length()/2; i++) {
        int front = i;
        int back = sb.length() - 1 - i; // 5-1-0 = > 4

        char frontChar = sb.charAt(front);
        char backChar = sb.charAt(back);

        sb.setCharAt(front, backChar);
        sb.setCharAt(back, frontChar);
    }

    System.out.println(sb);
}
```