

String class:-

1. package is java.lang
2. String class is final so we can't extends String class.
3. String literals are treated as object.
5,5.4 are literals but "abc" is literal as well as object.
4. String literals are immutable so we can't change them
for example if we want to replace 'a' with 'z' in the
string "abc" then it is not allowed.

*/

```
class StringMethods{
    public static void main(String args[]){

//String class Constructors
{
    String s1=new String();//default constructor
    System.out.println(s1);                //no output
    System.out.println(s1.isEmpty());      //true
}
```

```

{
    String s1=new String("abc");//copy constructor
    System.out.println(s1);           //abc
    System.out.println(s1.length());  //3
    for(int i=0;i<s1.length();i++)    //a
        System.out.println(s1.charAt(i)); //b
    for(int i=s1.length()-1;i>=0;i--) //c
        System.out.println(s1.charAt(i)); //c
}                                     //b
{
    //Character array to String      //a
    char ch[]={'a','b','c','d','e','f','g'};
    String s1=new String(ch);
    System.out.println(s1); //abcdefg
    String s2=new String(ch,2,3);    //2 is index/offset 3 is count
    System.out.println(s2); //cde
}

```

```
//String to Character array  
String s1="abcdef";  
char ch[]=s1.toCharArray();  
for(char c:ch)  
    System.out.println(c);
```

```
}
```

```
{
```

```
//byte array to String  
byte b1[]={97,98,99,100,101,102,103};  
String s1=new String(b1);  
System.out.println(s1); //abcdefg  
String s2=new String(b1,2,3);  
System.out.println(s2); //cde
```

```

//String to byte array
String s1="abcdef";
byte b[]=s1.getBytes();
for(int i=0;i<b.length;i++)
    System.out.println((char)b[i]);
}

```

/*String class methods

```

1.    length()
2.    charAt(index)           //StringIndexOutOfBoundsException
3.    isEmpty()
4.    toCharArray()
5.    getBytes()
*/
{
    String s1=new String("abc");
    String s2=new String("abc");    //3 objects in these two lines
    System.out.println(s1==s2);    //ref. cmp    False
    System.out.println(s1.equals(s2));//contents cmp    True
}

```

```
}  
{  
    String s1="abc";  
    String s2="abc";  
    System.out.println(s1==s2);                //True  
    System.out.println(s1.equals(s2));//equals is overridden      True  
}  
{  
    String s1=new String("abc");  
    String s2=new String("ABC");  
    System.out.println(s1.equals(s2));//case sensitive False  
    System.out.println(s1.equalsIgnoreCase(s2));//case insensitive True  
}
```



```
}  
{  
    String s1=new String("ravi");  
    String s2=new String("rajesh");  
    System.out.println(s1.compareTo(s2));    //+12  
    System.out.println("abc".compareTo("ABC")); //+32  
    System.out.println("abc".compareToIgnoreCase("ABC")); //0  
    System.out.println("abc".compareTo("abcde")); //-2  
    System.out.println("abcdefg".compareTo("abc")); //+4  
}
```

}

111111

{

0123456789012345

`String s1="xyabczabczzabcxy";``//left to right``System.out.println(s1.indexOf('a')); //2``System.out.println(s1.indexOf('a',4)); //6``System.out.println(s1.indexOf("abc")); //2``System.out.println(s1.indexOf("abc",4));//6``//right to left``System.out.println(s1.lastIndexOf('a')); //11``System.out.println(s1.lastIndexOf('a',10)); //6``System.out.println(s1.lastIndexOf("abc")); //11``System.out.println(s1.lastIndexOf("abc",10)); //6``System.out.println(s1.indexOf('m')); //-1``System.out.println(s1.indexOf("mat")); //-1`

}


```

{
    0123
    String s1="xyzabczzz";
    String s2="aabcbbb";
    System.out.println(s1.regionMatches(3,s2,1,3)); //true
                                     ^      ^
                                     index of s1  index of s2
}

{
    String s1="abc",s2;
    s2=s1.toUpperCase();
    System.out.println(s1);           //abc
    System.out.println(s2);           //ABC
}

```

```
{
    String s1=String.format("Sum of %d and %d is %d",5,6,11);
    System.out.print(s1);    //Sum of 5 and 6 is 11
}

{
    String s1="matrix";
    System.out.println(s1.substring(2));           //start          trix
    System.out.println(s1.substring(2,5));         //start,stop(exclusive) tri
    //StringIndexOutOfBoundsException if wrong index
}

{
    String s1="abc",s2="xyz",s3;
    s3=s1.concat(s2);
    System.out.println(s3); //abcxyz
}
```

```
{  
    String s1="Mr. Ramesh Sharma";  
    if(s1.startsWith("Mr. "))//case sensitive  
        System.out.println("Male");  
    else  
        System.out.println("Female");  
  
    if(s1.endsWith("Sharma"))  
        System.out.println("You are Brahmin");  
    else if(s1.endsWith("Bhatia"))  
        System.out.println("You are Punjabi");  
}  
  
{  
    String s1="abcabcabc";  
    s1=s1.replace('a','z');  
    System.out.println(s1);  
}
```

```
{  
    String s1="abcabcabc";  
    s1=s1.replaceFirst("abc","xyz");  
    System.out.println(s1);  
}
```

```
{  
    String s1="abcabcabc";  
    s1=s1.replaceAll("abc","xyz");  
    System.out.println(s1);  
}
```

```
{  
    String s1="   abc   xyz   ";  
    System.out.println("zzz"+s1.trim()+"zzz");           //zzzabc   xyzzzz  
}
```

```
{  
    String s1="How are you";  
    String s[]=s1.split(" ");  
    for(String e:s)  
        System.out.println(e);  
}  
  
{  
    int a=45;  
    String s1=String.valueOf(a);  
    System.out.println(s1);  
}  
  
}
```