

Character and String

J11

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The Character Class

The `Character` class boxes `char`, just as `Integer` boxes `int`. It contains methods and constants useful for manipulating characters:

- Property methods: `isLetter()`, `isDigit()`, etc.
- Conversion: `toString()` (a single character string!)

Escape sequences are used to represent characters that have a special meaning in Java syntax:

- `\'`, `\"`, `\\`, `\n`, etc.

The `String` Class

The `String` class is provided by Java to store and manipulate strings (by contrast, in C, a string is simply an array of characters).

- Implicit creation from literal:

```
String x = "foo";
```

- Concatenation with "+":

```
String y = x + "bar";
```

- `StringBuilder` class

Operations on Strings

- Get `length` (number of characters):

```
if (x.length() > 3) ...
```

- Get a character with `charAt()`
- Get a substring with `substring()`
- Others: `split()`, `trim()`, `toLowerCase()`, **etc.**
- Finding: `indexOf()`, `contains()`, **etc.**
- Replacing: `replace()`, `replaceAll()`, **etc.**