

Java Method Research – Week 4

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Class String methods:

`charAt(int index)` – this takes the value of the index and finds the character (char) value at that position. This would be useful for seeing what the string contains at a given position, such as the first letter.

`concat(String str)` – adds the given string to the string this method is called upon. This would allow concatenation without using operators.

`contains(CharSequence s)` – if the string contains the character sequence it will return true, otherwise it will return false. This would allow searching through the string for a matching substring.

`equals(Object anObject)` – returns true if the string matches the object given to it. Should be used instead of `==`. Gives a more accurate comparison of strings.

`isBlank()` - if the string only contains whitespace (spaces, tabs, form feeds, and line terminators) this will return true. This can check for meaningful content to the string rather than blank space.

These methods provide ways to search, manipulate, and check strings for content. This allows the String object to be much more useful than simple operators. For instance, the `isBlank` method allows us to check if there is no readable content to the string, and `contains` allows us to look for a character sequence match.

Resources: Oracle Java Documentation – Strings

<https://docs.oracle.com/en/java/javase/17/docs/api/java.base/java/lang/String.html>

O'Reilly Java Language Specification, Java SE 7 Edition, Fourth Edition

[https://www.oreilly.com/library/view/the-java-language/9780133260335/ch03lev1sec6.html#:~:text=3.6.-,White%20Space,terminator%20characters%20\(%C2%A73.4\).](https://www.oreilly.com/library/view/the-java-language/9780133260335/ch03lev1sec6.html#:~:text=3.6.-,White%20Space,terminator%20characters%20(%C2%A73.4).)

Class Array Methods:

`getChar(Object array, int index)` – This will return the value of the array at the given index as a char. If you know the data type of the array to be characters this would allow you to grab a specific item.

`getInt(Object array, int index)` – Similar to `getChar`, this returns the value of the array at the index, only as an int. This would also allow you to get the value you are looking for, only this time for an integer.

`getLength(Object array)` – This will get you the length of the array as an integer value. This could be used for a count of items, which could be needed in a for loop as an example.

`set(Object array, int index, Object value)` – Takes the array at the given index and places a new value into that position. This allows us to replace the value with another object specifically.

`get(Object array, int index)` – Gets the value of the array at the given index. A more generic way to get the value at the index as any object. Useful if you're getting an object that isn't a primitive type.

The array methods contain various ways to get information about the array, as well as to capture the values, or set them to a different value. This allows for manipulation of the array in addition to getting the values in different types.

Resources: Oracle Java Documentation – Array

<https://docs.oracle.com/en/java/javase/17/docs/api/java.base/java/lang/reflect/Array.html>