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Backend Software Development Course

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# Week 3: Research

**Prompts**

Select **five** methods from the **Array JavaDocs** and describe the following for each:

1. toLowerCase()
    a. What is the method signature?

        The method signature is String.toLowerCase()

    b. What does the method do?

        This method takes a string of either mixed upper and lower case letters, or upper case letters, and converts it to an entirely lower case string.

    c. Why would this method be useful (how could you use it)?

        This can be useful when standardizing or processing data, as it can take names or dates written by people and standardize them in a lowercase font for ease of comparison, avoiding differences in capitalization that may arise.

1. toUpperCase()
    a. What is the method signature?

        The method signature is String.toUpperCase()

    b. What does the method do?

        This method takes a string of either mixed upper and lower case letters or just lower case letters and converts it to an entirely upper case string

    c. Why would this method be useful (how could you use it)?

This can be useful when standardizing or processing data, as it can take names or dates written by people and standardize them in an uppercase font for ease of reading, official documentation, or comparison, avoiding differences in capitalization that may arise.

2. trim()
    a. What is the method signature?

        The method signature is String.trim()

    b. What does the method do?

        It removes any whitespace at the beginning and end that may have come in from user input, data sheets, or extraction from larger strings.

    c. Why would this method be useful (how could you use it)?

        This method is useful for standardization and processing data. Often if spaces are included in some matching strings but not others they can return errors or not show up when trying to compile similar information. Trimming whitespace at the beginning and end of your data can compact it and ensures like data will match.

3. length()
    a. What is the method signature?

        The method signature is String.length()

    b. What does the method do?

        This method counts the number of characters contained in a string and returns that number in basic integer form.

    c. Why would this method be useful (how could you use it)?

        This method is useful for formatting methods that rely on iterating through your strings, especially in operations like for loops. While one could use the for (String letter : word) format, if the “int i” format is more useful due to the iteration counter it is often necessary to verify

you will only iterate to the end of the string or in other words, iterate the length of the string

4. equals(Object)

    a. What is the method signature?

        The method signature is String.equals(object*)

        *generally, another string

    b. What does the method do?

        This method compares the string to whatever object is specified.

    c. Why would this method be useful (how could you use it)?

        This method allows you to compare strings as you would when comparing primitive data types with “==”. As you cannot use the “==” with these objects, the equals allows you to compare the contents of the two objects and determine if they have the same relative value.

What is your favorite thing you learned this week?

My favorite thing I learned this week was from self study related to arrays. I learned how to import arrays from text or csv files into a string array. This allowed me to import tabular data in order to reference related data by simply calling on the array indices. The import is done by first declaring the file with the File object. Then calling is through a scanner. The data can then be iterated using a for loop and the method “hasNextLine()”. In order to split the lines into separate sections you then separate the strings using the method “split()” csv’s make this easy as you can split by the comma.

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