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Week 3 Research - Arrays and Methods

1. Select five methods from the String JavaDocs and describe the following for each:
(a) What is the method signature?
(b) What does the method do?
(c) Why would this method be useful (how could you use it)?

1: charAt
a) Signature: public char charAt(int index)
b) This method returns a character at a specific index of a string.
c) If wee need the initial of a firstName we can use firstName.charAt(0) to get that initial.

2: concat
a) Signature: public String concat(String str)
b) This method concatenates the string passed as argument to the string that calls the method.
c) It can be used any time we need to concatenate strings to a string. For example, "402".concat("1234567") will concatenate a phone number to an area code.

3: endsWith
a) Signature: public boolean endsWith(String suffix)
b) This method returns true if a string ends with specified suffix
c) It can be used to check for plural words. For example, fruit.endsWith("s") will return true if the value in fruit is "apples" and false if value is just "apple".

4: equals
a) Signature: public boolean equals(Object anObject)
b) This method returns true if contents of a String are equal to the contents of another String and returns false if not equal.
c) If String a = "Hi" and String b = "Hi", we have to check if they are equal by using a.equals(b), instead of (a==b) because and b will point to different locations in memory and return false if we check using (a==b) even if the contents are same.

5: isEmpty()
a) Signature: public boolean isEmpty()
b) This method returns true if there are no characters in the string and returns false otherwise.
c) An example where this method can be useful is to check if a user entered their first name by using firstName.isEmpty().

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

(a) What is the method signature?
(b) What does the method do?
(c) Why would this method be useful (how could you use it)?

1: get
a) Signature: public Object get(Object array, int index)
b) This method returns the value at a specific index of the array.
c) It can be used to retrieve a team member name at a specific index.

2: getInt
a) Signature: public int getInt(Object array, int index)
b) This method returns an integer at a specific index of an array.
c) This method is useful to retrieve a value if the contents of an array are integers.

3: set
a) Signature: public void set(Object array, int index, Object value)
b) This method sets specified value to the specified index in the array
c) It can be used to add a team member in the array.

4: setDouble
a) Signature: public void setDouble(Object array, int index, double value)
b) This method sets a double value to a specific index of an array.
c) It can be used to add values to an array of doubles. For example, to add a price of a product.

3: getLength()
a) public int getLength()
b) This method returns the number of elements in an array.
c) It can be useful to know the size of an array to know how many values can be added to the array. It can also be used to create loops that iterate over the array to repeat the correct number of times.