CS202: IT Workshop

Java

Arrays

Ref:

1. Harvey Deitel, Paul Deitel, **Java: How to Program**, 9/e, Prentice Hall India.

2. **https://docs.oracle.com/**

Using java.util.Arrays

❑Working with array? Get help from Java's library

❑The "Arrays" class of *util* package supports a number of static methods
https://docs.oracle.com/javase/8/docs/api/java/util/Arrays.html

Using java.util.Arrays

❑ Working with array? Get help from Java's library

❑ The "Arrays" class of *util* package supports a number of static methods
https://docs.oracle.com/javase/8/docs/api/java/util/Arrays.html

int [ ] *intArray* = { 7, 8, 1, 5, 9 }; Arrays.*sort(intArray);*	$ $ 1, 5, 7, 8, 9	Java implements dual-pivot quick sort in **sort()** method

Using java.util.Arrays

❑Working with array? Get help from Java's library

❑The "Arrays" class of *util* package supports a number of static methods
https://docs.oracle.com/javase/8/docs/api/java/util/Arrays.html

int [ ] *intArray* = { 7, 8, 1, 5, 9 };	$	Java implements dual-pivot quick sort in **sort()** method
Arrays.*sort(intArray);*	$ 1, 5, 7, 8, 9	
Arrays.*fill(intArray, 9);*	$ 9, 9, 9, 9, 9	Fills all the elements with 9

*we need to import "**java.util.Arrays**" to work with Arrays

Using java.util.Arrays

❑ Working with array? Get help from Java's library

❑ The "Arrays" class of *util* package supports a number of static methods
https://docs.oracle.com/javase/8/docs/api/java/util/Arrays.html

int [ ] *intArray* = { 7, 8, 1, 5, 9 };	$	Java implements dual-pivot quick sort in **sort()** method
Arrays.*sort(intArray);*	$ 1, 5, 7, 8, 9	
Arrays.*fill(intArray, 9);*	$ 9, 9, 9, 9, 9	Fills all the elements with 9
Arrays.*fill(intArray, 2, 4, 5);*	$ 9, 9, 5, 5, 9	CW: Guess the operation

Using java.util.Arrays

❑Working with array? Get help from Java's library

❑The "Arrays" class of *util* package supports a number of static methods
https://docs.oracle.com/javase/8/docs/api/java/util/Arrays.html

int [ ] *intArray* = { 7, 8, 1, 5, 9 };	$	Java implements dual-pivot quick sort in **sort()** method
Arrays.*sort(intArray);*	$ 1, 5, 7, 8, 9	
Arrays.*fill(intArray, 9);*	$ 9, 9, 9, 9, 9	Fills all the elements with 9
Arrays.*fill(intArray, 2, 4, 5);*	$ 9, 9, 5, 5, 9	Fills with 5 in the index range from 2 to 4-1

Using java.util.Arrays

❏ Working with array? Get help from Java's library

❏ The "Arrays" class of *util* package supports a number of static methods
https://docs.oracle.com/javase/8/docs/api/java/util/Arrays.html

int [ ] *intArray* = { 7, 8, 1, 5, 9 };	$	Java implements dual-pivot quick sort in **sort()** method
Arrays.*sort(intArray);*	$ 1, 5, 7, 8, 9	
Arrays.*fill(intArray, 9);*	$ 9, 9, 9, 9, 9	Fills all the elements with 9
Arrays.*fill(intArray, 2, 4, 5);*	$ 9, 9, 5, 5, 9	Fills with 5 in the index range from 2 to 4-1
int loc = Arrays.*binarySearch(intArray, 5);*	$ 2	Returns the index of the first occurrence of the item 5

Code Demonstration (ArraysExample.java)