Arrays and Strings

- Arrays and Strings are objects
- whey are specific and compiler knows about it (you can’t create your own String with the same functionality)

Arrays

- An array is a container object that holds a fixed number of values of a single type.
- The length of an array is established when the array is created.
- After creation, its length is fixed.
- Each item in an array is called an element, and each element is accessed by its numerical index.
- Numbering begins with 0.

Examples

```
int[] anArray = new int[10];                    // operator new
int[] anArray = {0, 1, 2, 3};                   // the shortcut syntax
void main(String… args){}                       // varargs

Object[] objArray = {new Object(), "1", 2};
```

Array of objects is an array of references.

Multidimensional array is an array whose components are themselves arrays.

```
String[][] names = {
        {"Mr. ", "Mrs. ", "Ms. "},
        {"Smith", "Jones"}
};
```

Strings

public final class String implements java.io.Serializable, Comparable<String>, CharSequence{

```
    /** The value is used for character storage. */
    private final char value[];
```

...

}

- The String class represents character strings.
- All string literals in Java programs, such as "abc", are implemented as instances of this class.
- Strings are constant; their values cannot be changed after they are created.
- String buffers support mutable strings.

String creation

String str = "abc"; //autoboxing? no. It is a syntactic shugar.

//is equivalent to:

```
 char data[] = {'a', 'b', 'c'};
 String str = new String(data);
```

Strings comparison

equals

String pool

public native String intern();

When the *intern* method is invoked, if the pool already contains a string equal to this String object as determined by the equals(Object) method, then the string from the pool is returned.

Otherwise, this String object is added to the pool and a reference to this String object is returned.

native marks a method, that it will be implemented in other languages, not in Java.