Java Fundamentals for Android Development

Lesson 1
Java Overview

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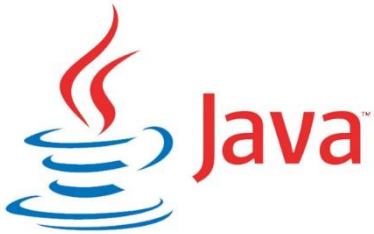
Java basics



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Java basics- Keywords

abstract	continue	for	new	switch
assert***	default	goto*	package	synchronized
boolean	do	if	private	this
break	double	implements	protected	throw
byte	else	import	public	throws
case	enum****	instanceof	return	transient
catch	extends	int	short	try
char	final	interface	static	void
class	finally	long	strictfp**	volatile
const*	float	native	super	while

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Java basics- Variables

1. Instance Variables (Non-Static Fields).
2. Class Variables (Static Fields).
3. Local Variables.
4. Parameters.

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Java basics- Primitives and types

Java is a language where you must be declared before you can use them. So we could say Java is a statically-typed language.

type name = value;

A variable's data type determines the values it may contain, plus the operations that may be performed on it.

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Java basics- Primitives and types

- A variable's data type determines the values it may contain, plus the operations that may be performed on it.
- A primitive type is predefined by the language and is named by a reserved keyword.
- Primitive values do not share state with other primitive values.
- Java supports eight primitive data types.

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Java basics- Primitives and types

- **byte**
  8-bit signed two's complement integer.
  It has a minimum value of -128 and a maximum value of 127 (inclusive).

- **short**
  16-bit signed two's complement integer.
  It has a minimum value of -32,768 and a maximum value of 32,767 (inclusive).

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Java basics- Primitives and types

- **int**
  is a 32-bit signed two's complement integer, has a minimum value of -2^{31} and a maximum value of $2^{31}-1$.

- **long**
  is a 64-bit two's complement integer.
  The signed long has a minimum value of -2^{63} and a maximum value of $2^{63}-1$.

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Java basics- Primitives and types

- **float**
  The float data type is a single-precision 32-bit IEEE 754 floating point.

- **double:**
  The double data type is a double-precision 64-bit IEEE 754 floating point.

  Warning: floating point use on big operations.

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Java basics- Primitives and types

- **boolean**
  Has only two possible values: true and false.

- **char**
  Is a single 16-bit Unicode character.
  It has a minimum value of '\u0000' (or 0) and a maximum value of '\uffff' (or 65,535 inclusive).

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Java basics- Primitives and types

Data Type	Default Value (for fields)
byte	0
short	0
int	0
long	0L
float	0.0f
double	0.0d
char	'\u0000'
String (or any object)	null
boolean	false

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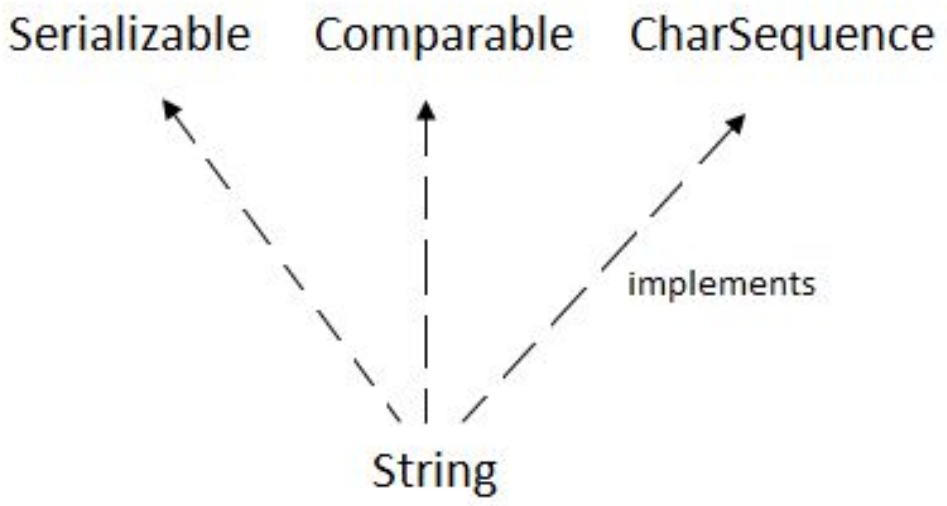
Java basics - Strings

Strings are a sequence of characters.
Strings are objects.

String class provide differents methods and Constructors for a correct manipulation of String objects.



- Creating Strings.
- Concatenating Strings

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