Java keywords

Keywords of the Java programming language (Java 8)
# Keywords of interest

In the Programming in Java book, we are concerned with the following keywords:

<table>
<thead>
<tr>
<th>abstract</th>
<th>continue</th>
<th>for</th>
<th>package</th>
<th>this</th>
</tr>
</thead>
<tbody>
<tr>
<td>assert</td>
<td>default</td>
<td>if</td>
<td>private</td>
<td>throw</td>
</tr>
<tr>
<td>boolean</td>
<td>double</td>
<td>implements</td>
<td>protected</td>
<td>throws</td>
</tr>
<tr>
<td>break</td>
<td>else</td>
<td>import</td>
<td>public</td>
<td>try</td>
</tr>
<tr>
<td>byte</td>
<td>enum</td>
<td>instanceof</td>
<td>return</td>
<td>void</td>
</tr>
<tr>
<td>case</td>
<td>extends</td>
<td>int</td>
<td>short</td>
<td>while</td>
</tr>
<tr>
<td>catch</td>
<td>final</td>
<td>interface</td>
<td>static</td>
<td></td>
</tr>
<tr>
<td>char</td>
<td>finally</td>
<td>long</td>
<td>super</td>
<td></td>
</tr>
<tr>
<td>class</td>
<td>float</td>
<td>new</td>
<td>switch</td>
<td></td>
</tr>
</tbody>
</table>
Keywords of interest - classes

The following keywords are relevant when declaring a class (or enum or interface):

Context (before the actual class definition):

- import
- package

Access level:

- private
- protected
- public

Other modifier:

- abstract
- final
- static

Entity (what are we declaring):

- enum
- interface
- class

Hierarchy:

- implements
- extends
Keywords of interest - fields (variables) of a class

The following keywords are relevant when declaring fields:

**Access level:**
- private
- protected
- public

**Other modifier:**
- final
- static

**Type:**
- boolean
- byte
- char
- double
- float
- int
- long
- short

*Note that classes like String when used as types are not keywords, they are identifiers (names)!*
Keywords of interest - method declarations

For declaring methods of a class:

**Access level:**
- private
- protected
- public

**Other modifier:**
- abstract
- final
- static

**Type:**
- boolean
- byte
- char
- float
- double
- int
- long
- short
- void

**Exception signal:**
- throws
Keywords of interest - code which does something

The following keywords are used when writing code which doesn something, like the body of constructors and methods (and initializers):

**Control flow:**
continue for if break else return switch case while finally

**Errors and exceptions:**
assert throw try catch

**(Local) Variable declarations:**
boolean byte char double float int long short final

**Tests:**
instanceof

**Dereferencing**
this super

**Creation:**
new
The rest (outside of the scope of this book/course)

Thread synchronization:
synchronized

Serialization:
transient

Floating point calculations:
strictfp

Concurrency/atomicity:
volatile

Methods written in other languages (differ between Java installations):
native

Java 8 interface default method modifier:
default
Further reading

- https://docs.oracle.com/javase/tutorial/essential/concurrency/atomic.html
- https://docs.oracle.com/javase/tutorial/essential/concurrency/syncrgb.html
- https://docs.oracle.com/javase/tutorial/java/IandI/defaultmethods.html

(For those who really want to know more!)