Java SE 8

Java 8 was released on 18 March 2014. The code name culture is dropped with Java 8 and so no official code name going forward from Java 8.

New features in Java SE 8

- Lambda Expressions
- Pipelines and Streams
- Date and Time API
- Default Methods
- Type Annotations
- Nashhorn JavaScript Engine
- Concurrent Accumulators
- Parallel operations
- PermGen Error Removed
- TLS SNI

Java Version SE 7

Code named Dolphin and released on July 28, 2011.

New features in Java SE 7

- Strings in switch Statement
- Type Inference for Generic Instance Creation
- Multiple Exception Handling
- Support for Dynamic Languages
- Try with Resources
- Java nio Package
- Binary Literals, underscore in literals
- Diamond Syntax
- Automatic null Handling

Java Version SE 6

Code named Mustang and released on December 11, 2006.

New features in Java SE 6

- Scripting Language Support
- JDBC 4.0 API
- Java Compiler API
- Pluggable Annotations
- Native PKI, Java GSS, Kerberos and LDAP support.
- Integrated Web Services.

- Lot more enhancements.

J2SE Version 5.0

Code named Tiger and released on September 30, 2004.

New features in J2SE 5.0

- Generics
- Enhanced for Loop
- Autoboxing/Unboxing
- Typesafe Enums
- Varargs
- Static Import
- Metadata (Annotations)
- Instrumentation

J2SE Version 1.4

Code named Merlin and released on February 6, 2002 (first release under JCP).

New features in J2SE 1.4

- XML Processing
- Java Print Service
- Logging API
- Java Web Start
- JDBC 3.0 API
- Assertions
- Preferences API
- Chained Exception
- IPv6 Support
- Regular Expressions
- Image I/O API

J2SE Version 1.3

Code named Kestrel and released on May 8, 2000.

New features in J2SE 1.3

- Java Sound
- Jar Indexing
- A huge list of enhancements in almost all the java area.

J2SE Version 1.2

Code named Playground and released on December 8, 1998.

New features in J2SE 1.2

- Collections framework.
- Java String memory map for constants.
- Just In Time (JIT) compiler.
- Jar Signer for signing Java ARchive (JAR) files.
- Policy Tool for granting access to system resources.
- Java Foundation Classes (JFC) which consists of Swing 1.0, Drag and Drop, and Java 2D class libraries.
- Java Plug-in
- Scrollable result sets, BLOB, CLOB, batch update, user-defined types in JDBC.
- Audio support in Applets.

JDK Version 1.1

Released on February 19, 1997

New features in JDK 1.1

- JDBC (Java Database Connectivity)
- Inner Classes
- Java Beans
- RMI (Remote Method Invocation)
- Reflection (introspection only)

JDK Version 1.0

Codenamed Oak and released on January 23, 1996.

Java SE 9 Features

Possible Release Date : September 22, 2016

Proposed features are:

- Support for multi-gigabyte heaps
- Better native code integration
- Self-tuning JVM
- Java Module System
- Money and Currency API
- jshell: The Java Shell
- Automatic parallelization

Java SE 8 Features

Release Date : March 18, 2014

Code name culture dropped. Included features were:

- Lambda expression support in APIs
- Functional interface and default methods
- Optionals
- Nashorn – JavaScript runtime which allows developers to embed JavaScript code within applications
- Annotation on Java Types
- Unsigned Integer Arithmetic
- Repeating annotations
- New Date and Time API
- Statically-linked JNI libraries
- Launch JavaFX applications from jar files
- Remove the permanent generation from GC

Java SE 7 Features

Release Date : December 11, 2006

This release was called "Dolphin". Included features were:

- JVM support for dynamic languages
- Compressed 64-bit pointers
- Strings in switch
- Automatic resource management in try-statement
- The diamond operator
- Simplified varargs method declaration
- Binary integer literals
- Underscores in numeric literals
- Improved exception handling
- ForkJoin Framework
- NIO 2.0 having support for multiple file systems, file metadata and symbolic links
- WatchService
- Timsort is used to sort collections and arrays of objects instead of merge sort
- APIs for the graphics features
- Support for new network protocols, including SCTP and Sockets Direct Protocol

Java SE 6 Features

Release Date : `December 11, 2006`

This release was called "Mustang". Sun dropped the ".0" from the version number and version became Java SE 6. Included features were:

- Scripting Language Support
- Performance improvements
- JAX-WS
- JDBC 4.0
- Java Compiler API
- JAXB 2.0 and StAX parser
- Pluggable annotations
- New GC algorithms

J2SE 5.0 Features

Release Date : `September 30, 2004`

This release was called "Tiger". Most of the features, which are asked in java interviews, were added in this release.

Version was also called 5.0 rather than 1.5. Included features are listed down below:

- Generics
- Annotations
- Autoboxing/unboxing
- Enumerations
- Varargs
- Enhanced `for each` loop
- Static imports
- New concurrency utilities in `java.util.concurrent`
- `Scanner` class for parsing data from various input streams and buffers.

J2SE 1.4 Features

Release Date : `February 6, 2002`

This release was called "Merlin". Included features were:

- `assert` keyword
- Regular expressions
- Exception chaining
- Internet Protocol version 6 (IPv6) support
- New I/O; NIO
- Logging API
- Image I/O API
- Integrated XML parser and XSLT processor (JAXP)
- Integrated security and cryptography extensions (JCE, JSSE, JAAS)
- Java Web Start
- Preferences API (java.util.prefs)

J2SE 1.3 Features

Release Date : `May 8, 2000`

This release was called "Kestrel". Included features were:

- HotSpot JVM
- Java Naming and Directory Interface (JNDI)
- Java Platform Debugger Architecture (JPDA)
- JavaSound
- Synthetic proxy classes

J2SE 1.2 Features

Release Date : `December 8, 1998`

This release was called "Playground". This was a major release in terms of number of classes added (almost trippled the size). "J2SE" term was introduced to distinguish the code platform from J2EE and J2ME. Included features were:

- `strictfp` keyword
- Swing graphical API
- Sun's JVM was equipped with a JIT compiler for the first time
- Java plug-in
- Collections framework

JDK 1 Features

Release Date : `January 23, 1996`

This was the initial release and was originally called **Oak**. This had very unstable APIs and one java web browser named **WebRunner**.

The first stable version, JDK 1.0.2, was called Java 1.

On February 19, 1997, JDK 1.1 was released havind a list of big features such as:

- AWT event model
- Inner classes
- JavaBeans
- JDBC
- RMI
- Reflection which supported Introspection only, no modification at runtime was possible.
- JIT (Just In Time) compiler for Windows

1991

Green Project

January, 1991

Project named "Green Project" was started. Green project's goal was to support home consumer devices. Consumer devices to be made intelliegent so they can interact with each other and they can be controlled via a remote. Bill Joy, James Gosling, Mike Sheradin, Patrick Naughton were the key members of the Green Project.

Oak

February, 1991

James Gosling was the software lead and architect. His initial objective was to find a suitable language for Green Project. He chose C++ and wrote extensions wherever there were gaps. Then the features were not sufficient for the project needs and creating a new language was the next move. He started working on the new language and named it as "Oak", there was an Oak tree outside his office window.

Hardware Prototype

April, 1991

SPARCstation 10's architect Ed Frank joins Green project to lead the hardware work. Objective was to develop a hardware prototype and demonstrate the capabilities. The project was code named star-seven (*7). Team members of star 7 project were Craig Forrest, Al Frazier, Ed Frank, James Gosling, Patrick Naughton, Joe Parlang, Jon Payne, Mike Sheridan, Chris Warth.

Interpreter

June, 1991

James Gosling works on Oak interpreter.

1992

Java Named

March, 1992

Oak was name of another already existing language and so a new name was chosen and it was Java. It was inspired by coffee.

Star-seven Prototype

September, 1992

Star-seven (*7) working prototype with a GUI was completed and demonstrated. At this time Green project has created a new language, an operating system, a hardware platform and an interface. Below is the demo of PDA like star 7 prototype and **demo was given by James Gosling** himself. I recommend you to go through the complete demo and feel amazed on what they have done during 1991 – 1992.

FirstPerson

November, 1992

Green project was incorporated as a separate entity with a name FirstPerson as a subsidiary of Sun Microsystems.

1993

TV Set-top Box

February, 1993

FirstPerson attempts to bag order from Time-Warner for a TV set-top box interactive system. By this time, green project was not proving successful and Time-Warner order was also lost. From home consumer electronics the focus was shifted to TV and set-top box related platform.

Application Development for Platform

September, 1993

Arthur Van Hoff joins the team to work on application development for the interactive platform.

1994

Liveoak

June, 1994

Even TV interactive market was not fruitful for FirstPerson and it was closed. Employees absorbed into Sun. Liveoak project started, aim was to create an operating system by using Oak.

Web Browser Era

July, 1994

Patrick Naughton creates a web browser and uses Java in

it. Liveoak project modified to make Oak for Internet.

HotJava

September, 1994

Naughton and Jonatha Payne starts working on a Java based web browser named HotJava and this project gets wider acceptance from the management and progresses.

Java Compiler

October, 1994

Java compiler was written by Van Hoff using Java, previously it was written in C by James Gosling.

1995

Formal Launch

May, 1995

At SunWorld conference Java and HotJava was formally introduced by Sun.

Netscape Support

June, 1995

In a major breakthrough, Netscape supports Java in its browser.

HotJava

September, 1995

First Java developer conference held by Sun at New York.

Oracle Support

October, 1995

Oracle includes a Java compatible browser in its launch of WWW WebSystem.

Microsoft Support

December, 1995

In a first signal for wider industry acceptance, Microsoft supports Java in IE.

1996

1.0

January, 1996

JDK 1.0 released.

1997

1.1

February, 1997

JDK 1.1 released. Key features were JDBC, RMI, Inner Classes.

1998

1.2

December, 1998

JDK 1.2 code named Playgroud released. This version is mostly called Java 2 and was the most popular release which witnessed major conversions. Major features were collections framework, JIT compiler, policy tool, Java foundation classes, Java 2D class libraries, major enhancement in JDBC.

2000

1.3

May, 2000

JDK 1.3 code named Kestrel released.

2002

1.4

February, 2002

J2SE 1.4 code named Merlin released. Major features were XML Processing, Java Print, Logging, JDBC 3.0, Assertions, Regular Expressions

2004

5.0

September, 2004

J2SE 5.0 code named Tiger released. Major features were Generics, Autoboxing, Annotations, Instrumentation. If you wish a detailed account of version and its features for all Java JDK, refer my old article.

2006

Java/Jdk (Half) Open Sourced

November, 2006

Java was announced to be open source and it was controversial. The way the license was designed contradicted the general open source term. May be we should call it half-sourced.

6.0

December, 2006

Java SE 6 code named Mustang released. Major features were Scripting Language Support, JDBC 4.0, Java Compiler API, Integrated Web Services.

2010

Oracle Buys Sun

January, 2010

Oracle buys Sun and its products. Now Java is in the hands of Oracle.

No Support for Java in Future – Apple

October, 2010

Steve Jobs says, Apple will not support Java in future. ReadJames Gosling's comment on that note by Steve Jobs.

2011

7.0

July, 2011

Java SE 7 code named Dolphin released. This release was done after 5 long years and only this release has taken this much duration. Major features were dynamic language support, Java nio Package, multiple exception handling, try with resources and lots of minor enhancements.

2014

8

18 March, 2014

Java SE 8 was released. This is one of the major release in Java in its history. Major features were Lambda Expressions, Pipelines and Streams, Date and Time API , Default Methods, Type Annotations, Nashhorn JavaScript Engine, Concurrent Accumulators, Parallel operations, PermGen Space Removed, TLS SNI.