

오픈소스화 되어 가는 미래 자바 생태계

Onface
양수열



About: Sooyeol, Yang (@javaoracle)

- javaoracle@gmail.com
- 1999 ~ 2009 Java (SI, Developer)
- 2010 ~ 2016 Engineer & trainer
 - Ewha professor, TreasureData engineer....
- 2017 ~ ML, Deep Learning(-_-),

Face recognition, VR, Oracle code one speaker



Java의 3대 전환점

1996

2019

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Java의 3대 전환점: Java 1.2 → Enterprise

1996

1999.12

2019

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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1998.12 → Java SE 1.2

1999.12 → Java EE 1.2

2000.05 → Java SE 1.3

Java의 3대 전환점: OpenSource Community 주도

1996

1999.12

2006.05

2019

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Java EE 5.0

Java의 3대 전환점: OpenSource Community 주도

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Java EE 5.0

POJO

Dependency Injection



Java의 3대 전환점: OpenSource Community 주도

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Standardization

Java EE 5.0

Standardization

proposal

POJO

Dependency Injection

proposal



Java의 3대 전환점: OpenJDK → 다양성 자바

1996

1999.12

2006.05

2019



OpenJDK

■ Oracle	■ SAP	■ Red Hat	■ Google	■ Independent
■ BellSoft	■ IBM	■ Alibaba	■ Amazon	■ ARM
■ Azul	■ Intel	■ JetBrains	■ Linaro	■ Qualcomm DCT

Java의 3대 전환점: OpenJDK → 다양성 자바

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OpenJDK

 Oracle	 SAP	 Red Hat	 Google	 Independent
 BellSoft	 IBM	 Alibaba	 Amazon	 ARM
 Azul	 Intel	 JetBrains	 Linaro	 Qualcomm DCT

Java Virtual Machine



ORACLE



ORACLE

JROCKIT

OpenJ9



Excelsior JET



SAP JVM

Java의 3대 전환점: OpenJDK → 다양성 자바

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OpenJDK
GraalVM

- Oracle
- BellSoft
- Azul
- SAP
- IBM
- Intel
- Red Hat
- Alibaba
- JetBrains
- Google
- Amazon
- Linaro
- Independent
- ARM
- Qualcomm DCT

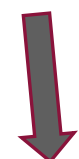
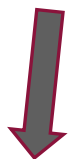
Java Virtual Machine

Java
ORACLE
AZUL SYSTEMS
OpenJ9
Excelsior JET
SAP JVM

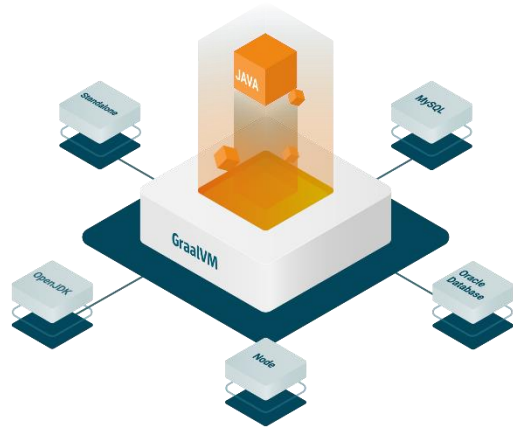
GraalVM™



OpenJDK™



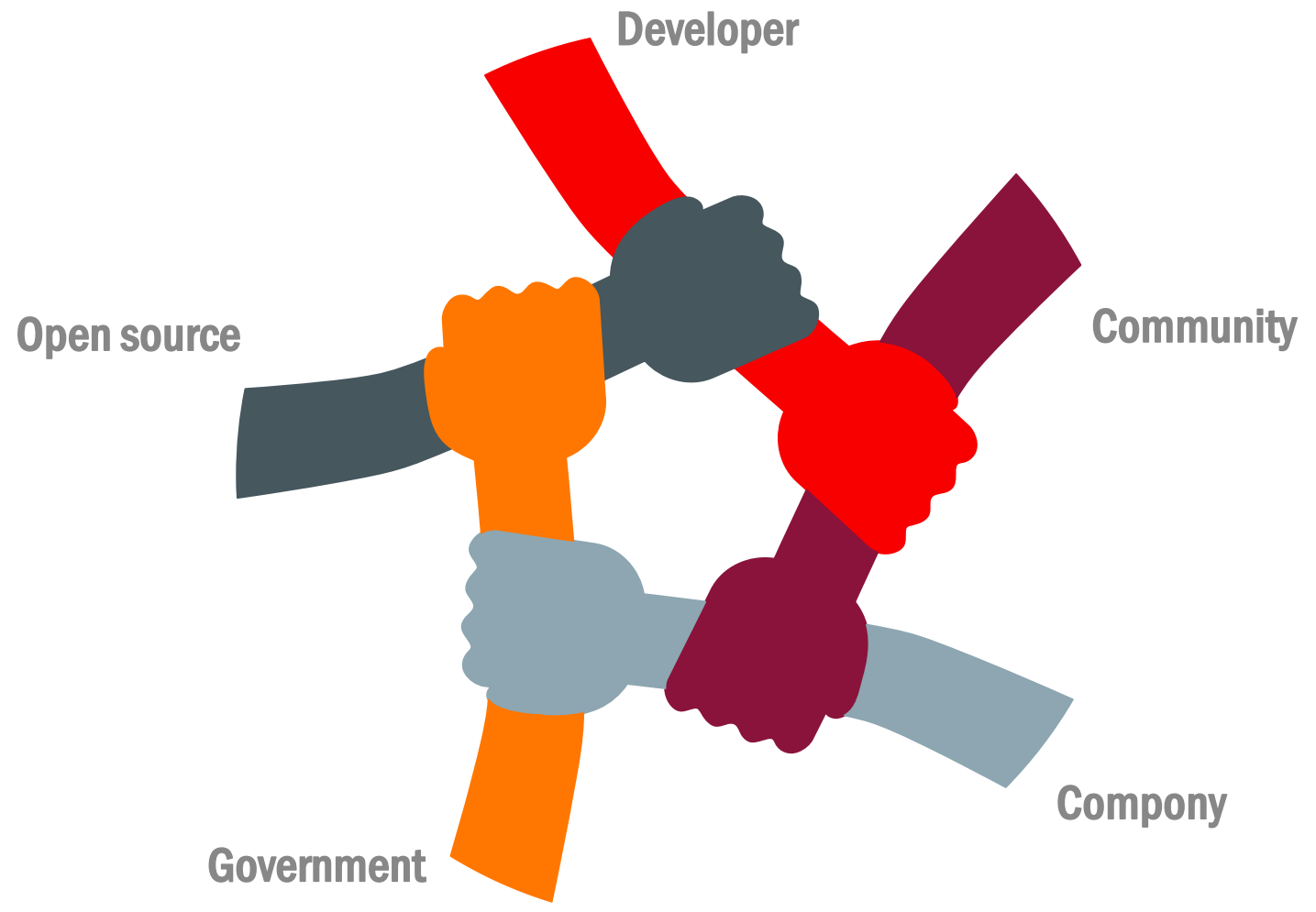
GraalVM, OpenJDK, Oracle Java



Graal
Native Image
JVMCI

JEP 243: Java-Level JVM Compiler Interface
JEP 295: Ahead-of-Time Compilation
JEP 317: Experimental Java-Based JIT Compiler





Q & A

**Open Source
Forever**