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Java概述



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◆ Java语言发展史

◆ Java语言跨平台原理

◆ JRE和JDK

◆ JDK的下载和安装

1. Java语言发展史

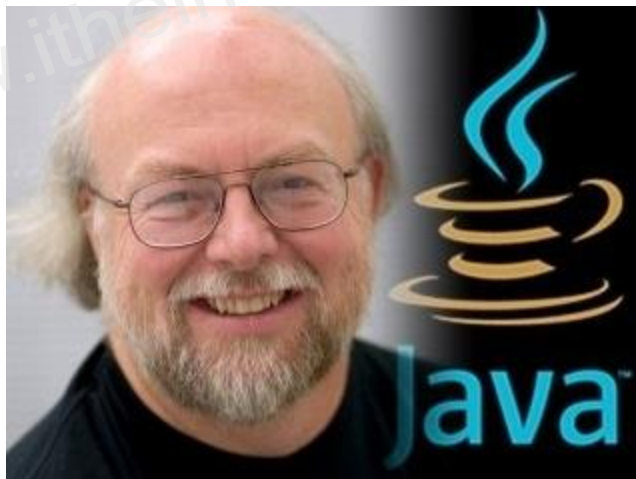
1.1 Java语言

语言：人与人交流沟通的表达方式

计算机语言：人与计算机之间进行信息交流沟通的一种特殊语言

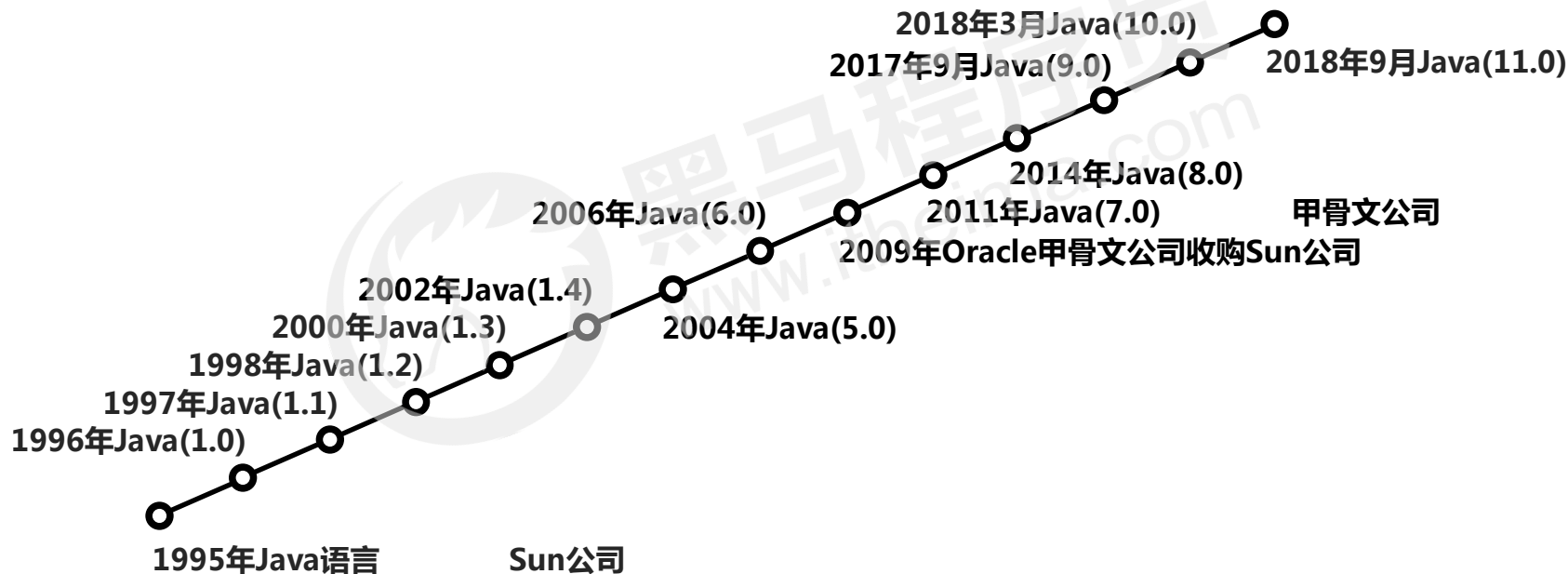
Java语言是美国**Sun**公司（**Stanford University Network**）在1995年推出的计算机语言

Java之父：詹姆斯·高斯林（James Gosling）



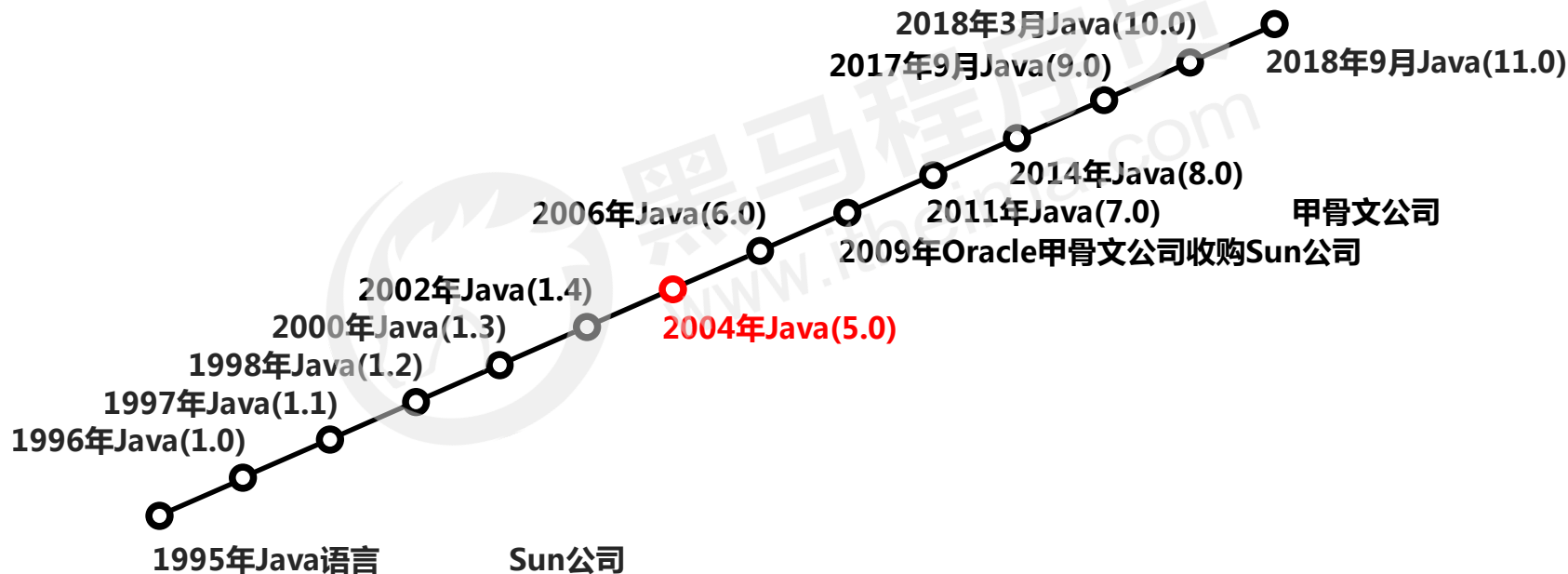
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1.2 Java语言发展史



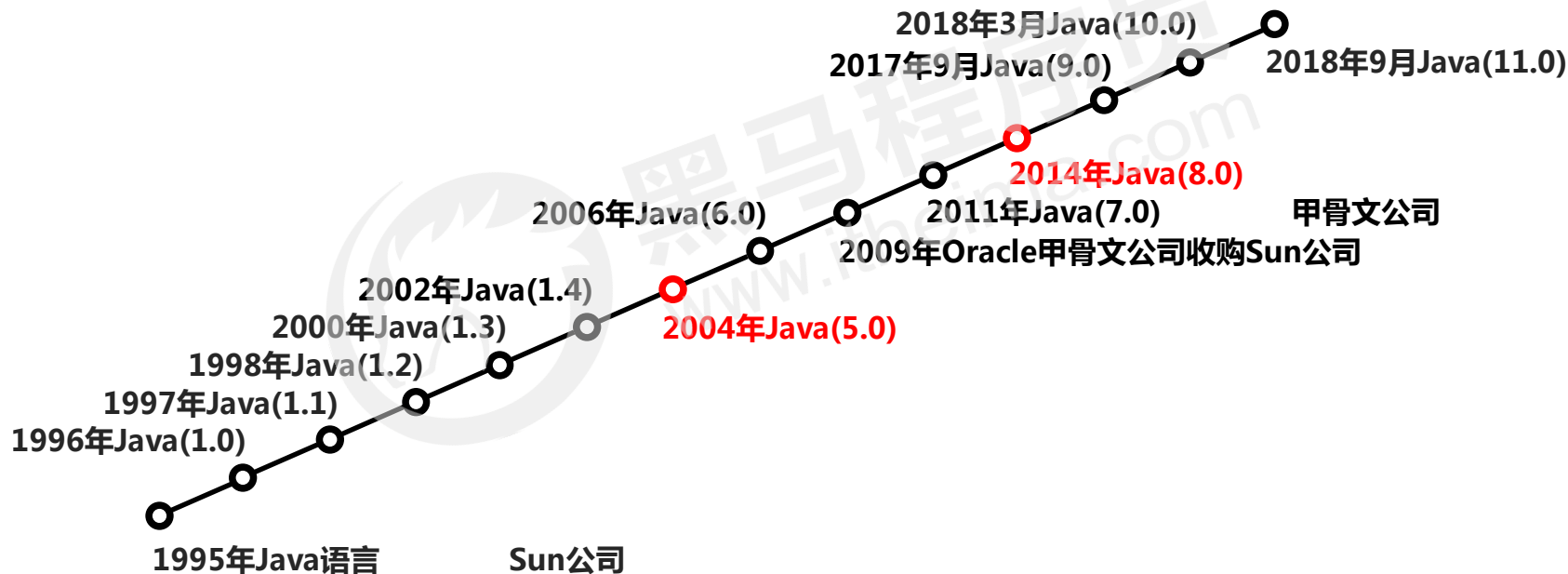
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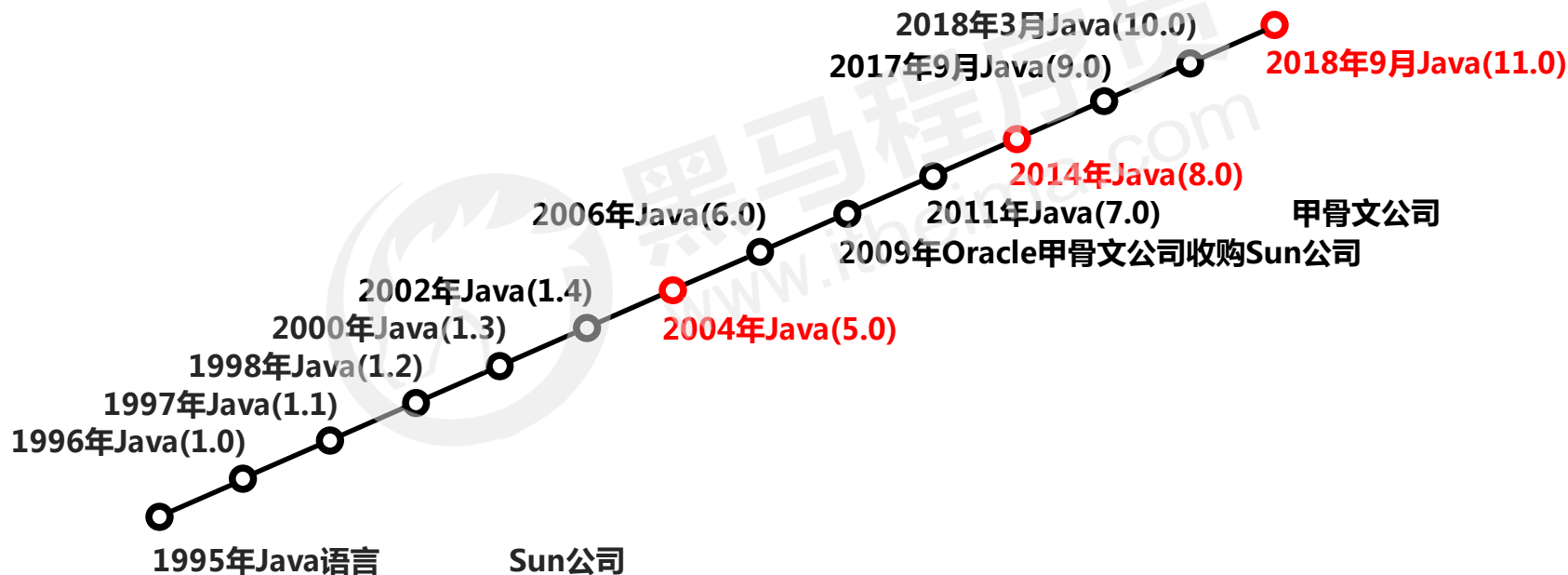
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1. Java语言发展史

1.2 Java语言发展史



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2. Java语言跨平台原理

2.1 平台

指的是操作系统

- Windows
- Mac
- Linux



2. Java语言跨平台原理

2.2 跨平台

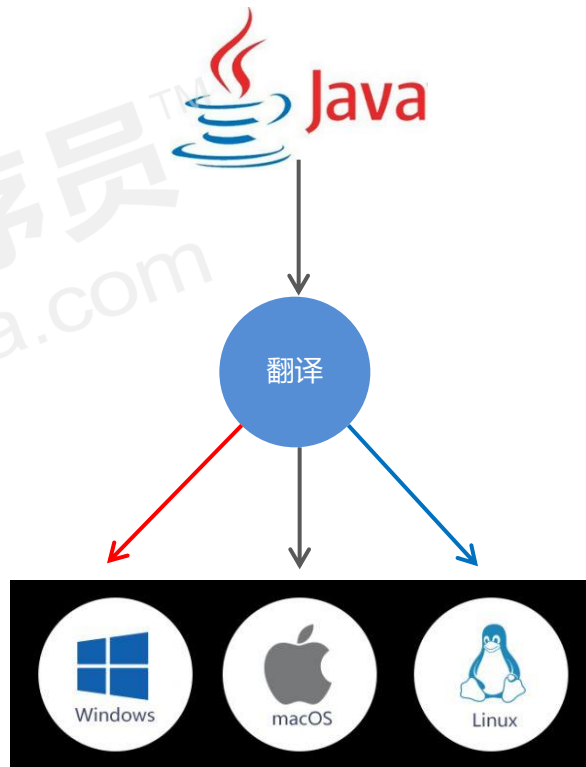
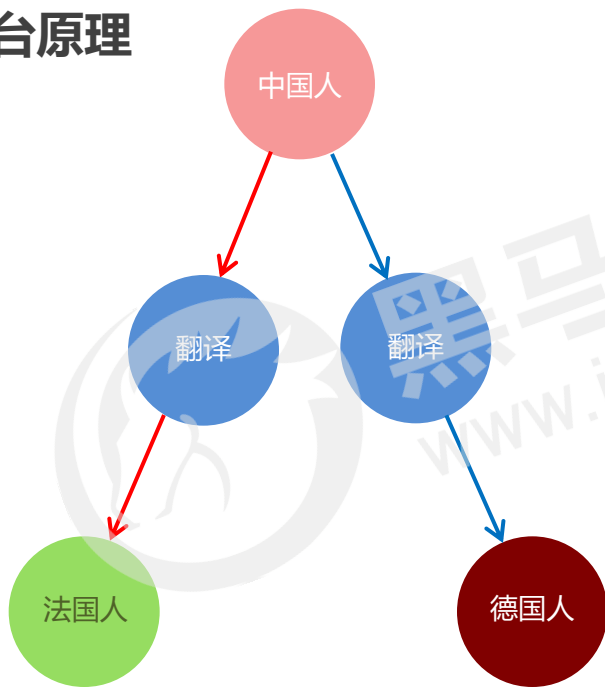
Java程序可以在任意操作系统上运行



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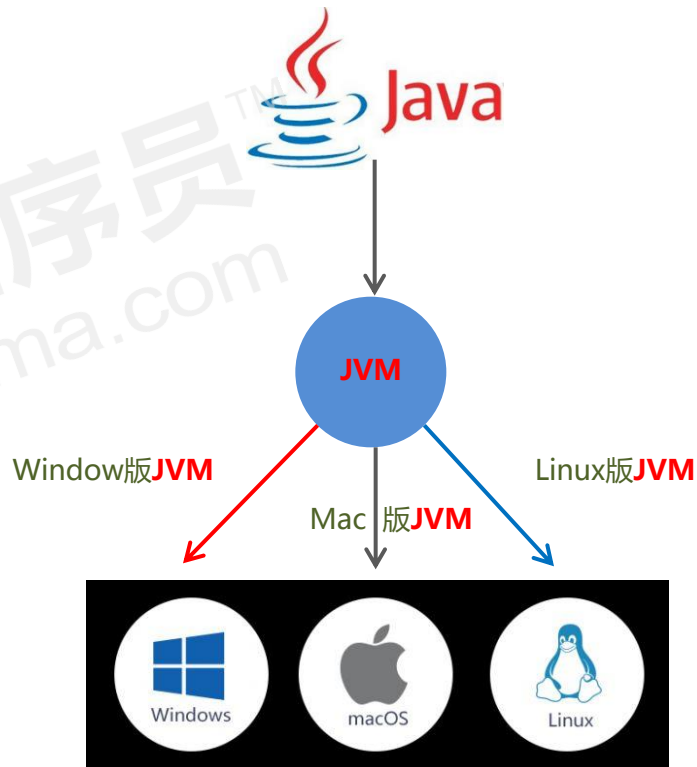
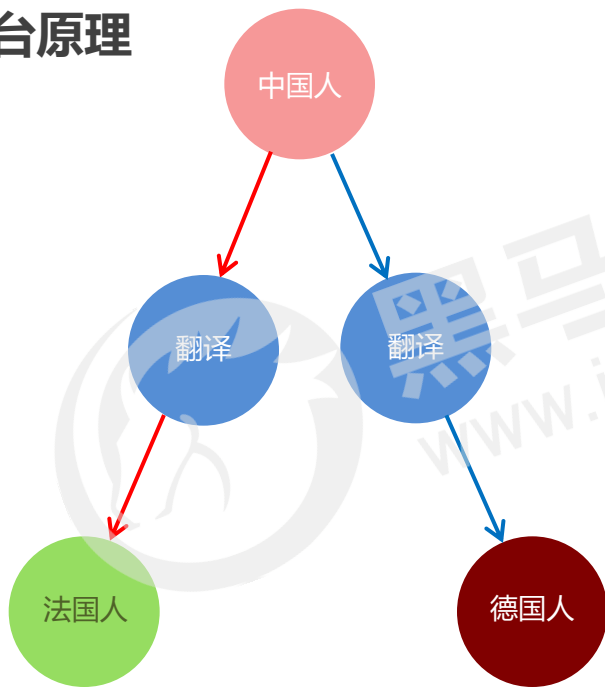
2. Java语言跨平台原理

2.3 跨平台原理



2. Java语言跨平台原理

2.3 跨平台原理



总结：在需要**运行Java应用程序**的操作系统上，安装一个与操作系统对应的Java虚拟机(**JVM Java Virtual Machine**)即可。

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3. JRE和JDK

3.1 JRE (Java Runtime Environment)

是Java程序的运行时环境，包含 **JVM** 和运行时所需要的核心类库。

我们想要**运行**一个已有的Java程序，那么只需安装 **JRE** 即可。



3. JRE和JDK

3.2 JDK (Java Development Kit)

是Java程序开发工具包，包含 JRE 和开发人员使用的工具。

其中的开发工具：编译工具 (`javac.exe`) 和运行工具 (`java.exe`)。

我们想要开发一个全新的Java程序，那么必须安装 JDK。



3. JRE和JDK

3.3 JDK、JRE和JVM的关系



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4.JDK的下载和安装

4.1 JDK的下载

通过官方网站获取JDK

<http://www.oracle.com>

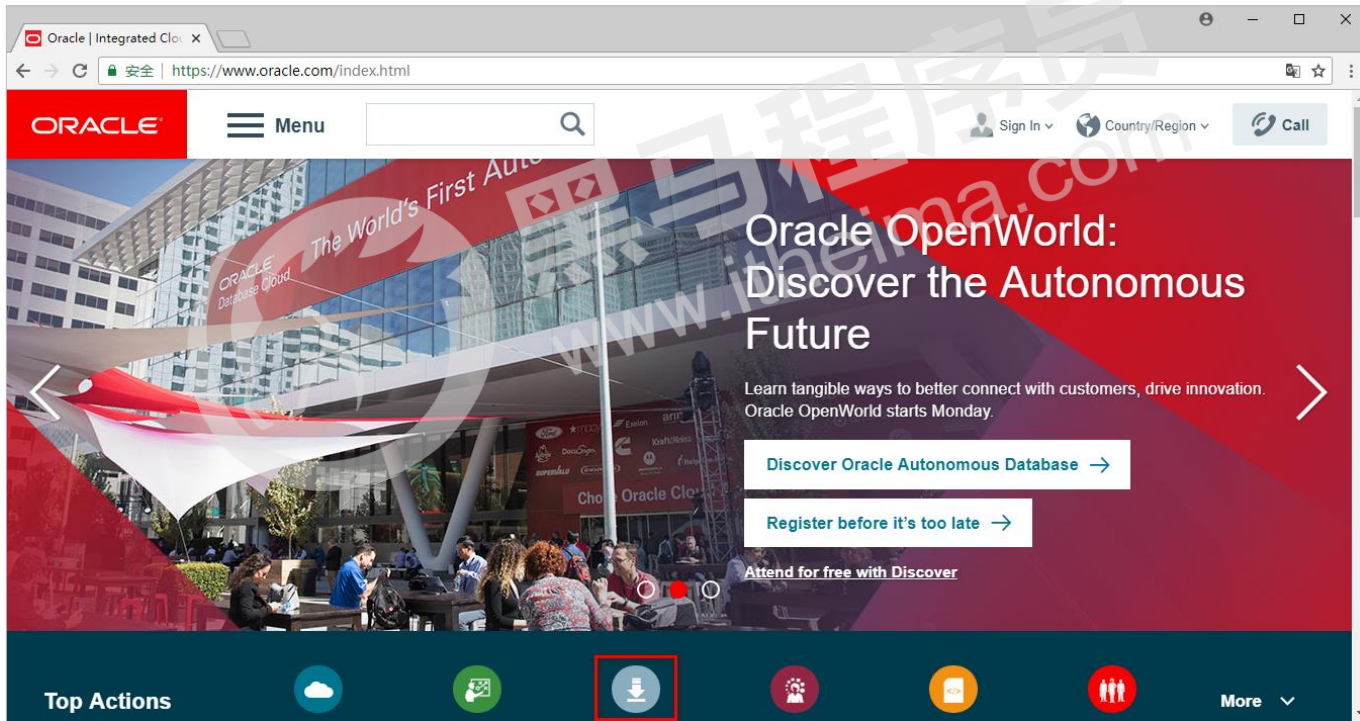
注意：针对不同操作系统，下载对应的JDK



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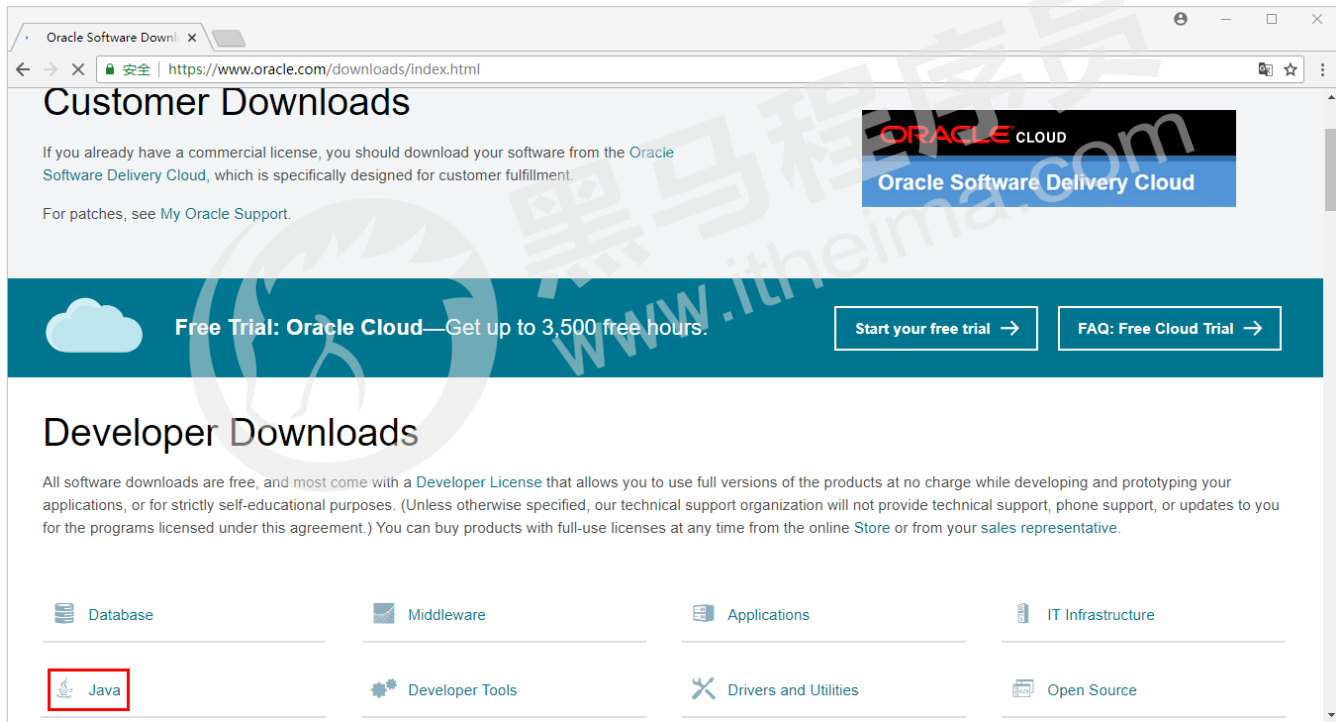
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4.1 JDK的下载



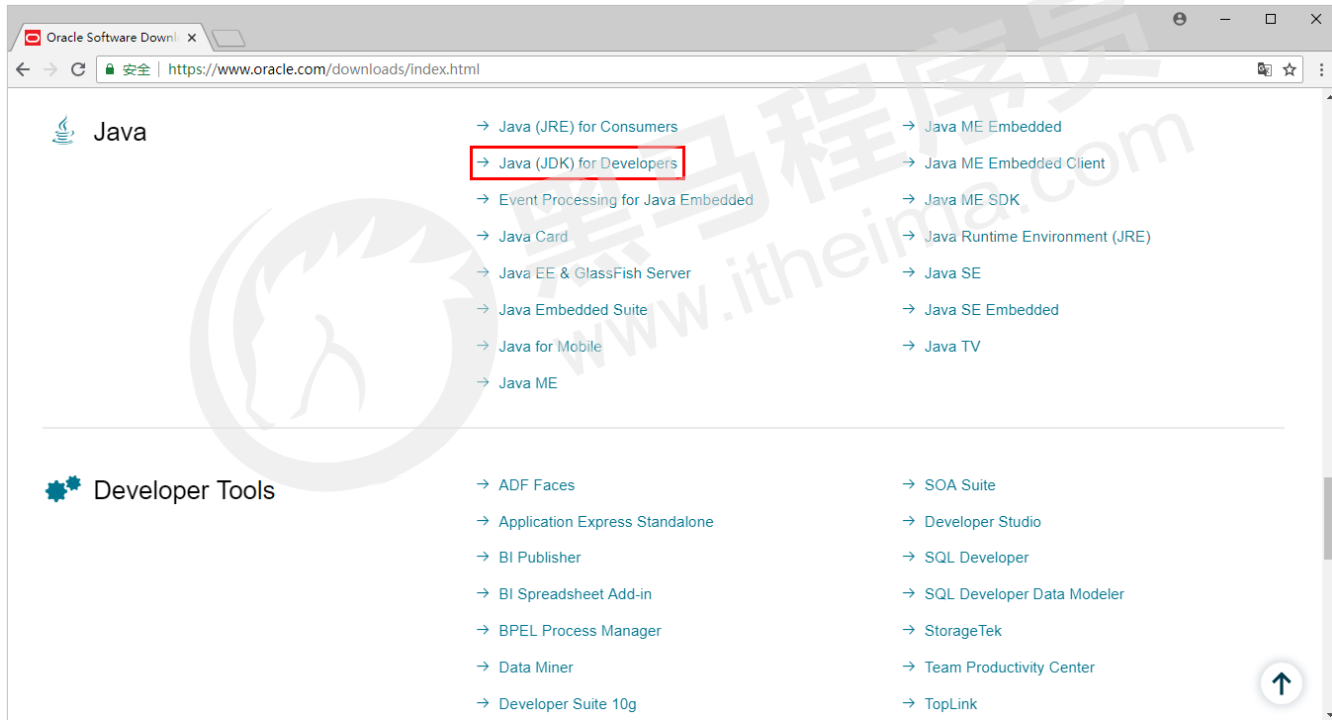
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4.1 JDK的下载



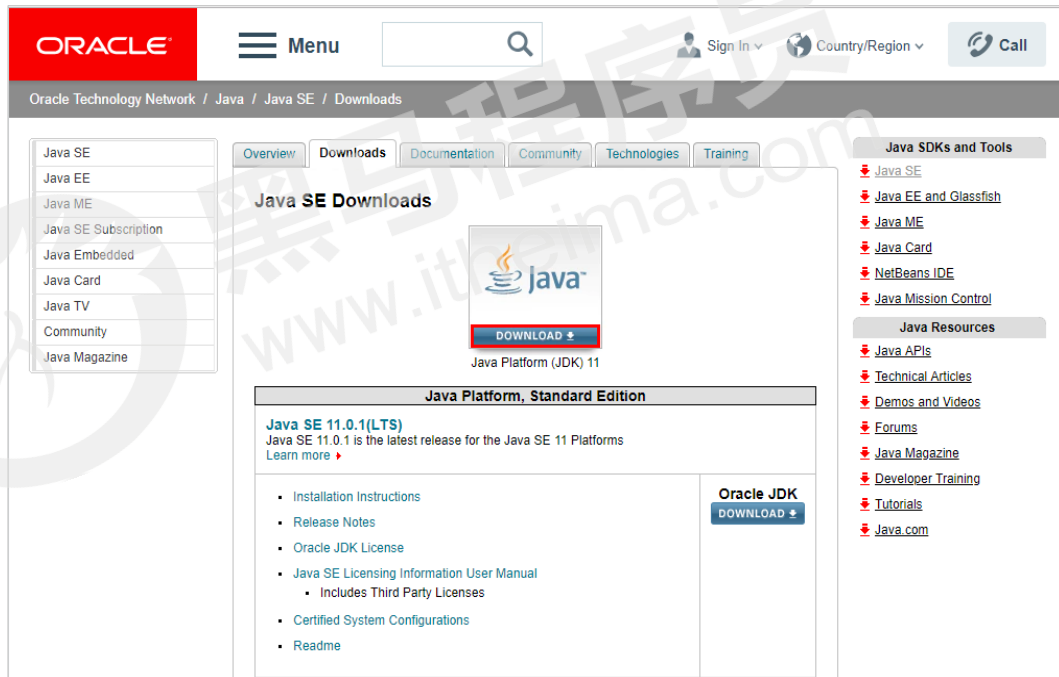
4.JDK的下载和安装

4.1 JDK的下载



4.JDK的下载和安装

4.1 JDK的下载



The screenshot shows the Oracle Java SE Downloads page. The header includes the Oracle logo, a menu icon, a search bar, and links for Sign In, Country/Region, and a Call button. The breadcrumb trail reads: Oracle Technology Network / Java / Java SE / Downloads.

On the left, a sidebar lists various Java products: Java SE, Java EE, Java ME, Java SE Subscription, Java Embedded, Java Card, Java TV, Community, and Java Magazine.

The main content area is titled "Java SE Downloads" and features a "DOWNLOAD" button next to the Java logo. Below this, it specifies "Java Platform (JDK) 11".

The "Java Platform, Standard Edition" section highlights "Java SE 11.0.1(LTS)" as the latest release for Java SE 11 Platforms, with a "Learn more" link. A list of links is provided: Installation Instructions, Release Notes, Oracle JDK License, Java SE Licensing Information User Manual (including Third Party Licenses), Certified System Configurations, and Readme.

On the right, there are two sections: "Java SDKs and Tools" with links to Java SE, Java EE and Glassfish, Java ME, Java Card, NetBeans IDE, and Java Mission Control; and "Java Resources" with links to Java APIs, Technical Articles, Demos and Videos, Forums, Java Magazine, Developer Training, Tutorials, and Java.com.

A large, semi-transparent watermark "黑马程序员" and the URL "www.itheima.com" are overlaid across the center of the page.

4.JDK的下载和安装

4.1 JDK的下载

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The JDK includes tools useful for developing and testing programs written in the Java programming language and running on the Java platform.

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| Linux | 171.43 MB | jdk-11.0.1_linux-x64_bin.tar.gz |
| macOS | 166.2 MB | jdk-11.0.1_osx-x64_bin.dmg |
| macOS | 166.55 MB | jdk-11.0.1_osx-x64_bin.tar.gz |
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| Windows | 170.99 MB | jdk-11.0.1_windows-x64_bin.zip |

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- Java ME
- Java Card
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4.1 JDK的下载

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4.1 JDK的下载

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4.JDK的下载和安装

4.2 JDK的安装

傻瓜式安装，下一步即可。

建议：安装路径中不要包含中文和空格。所有的开发工具最好安装目录统一。



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4.2 JDK的安装



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4.JDK的下载和安装

4.3 JDK的安装目录

| 目录名称 | 说明 |
|---------|--|
| bin | 该路径下存放了JDK的各种工具命令。 javac 和 java 就放在这个目录。 |
| conf | 该路径下存放了JDK的相关配置文件。 |
| include | 该路径下存放了一些平台特定的头文件。 |
| jmods | 该路径下存放了JDK的各种模块。 |
| legal | 该路径下存放了JDK各模块的授权文档。 |
| lib | 该路径下存放了JDK工具的一些补充JAR包。 |

其余文件为说明性文档。



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