Java support system includes:

### 1. Java Development Kit (JDK):

- The JDK is a software development kit provided by Oracle Corporation for developing Java applications.
- It includes the Java compiler (javac) for compiling Java source code into bytecode.
- The JDK also includes other tools and utilities for debugging, documentation generation, and more.

## 2. Java Virtual Machine (JVM):

- The JVM is a key component of the Java platform. It is responsible for executing Java bytecode.
- It provides platform independence, allowing Java programs to run on any system with a compatible JVM.
- The JVM handles memory management, garbage collection, and runtime environment for Java applications.

# 3. Standard Library:

- Java has a rich and comprehensive Standard Library (also known as the Java API) that provides a wide range of pre-built classes and functions.
- The Standard Library includes classes for data structures, input/output operations, networking, multithreading, GUI development, and more.
- Developers can leverage these classes to build robust and feature-rich applications without having to implement everything from scratch.

### 4. Integrated Development Environments (IDEs):

- IDEs are software applications that provide comprehensive development environments for writing, debugging, and testing Java code.
- Popular Java IDEs include Eclipse, IntelliJ IDEA, and NetBeans.
- These IDEs offer features like code completion, syntax highlighting, debugging tools, and project management capabilities.

#### 5. Build Tools:

- Java build tools simplify the process of compiling, testing, and packaging Java applications.
- Apache Maven and Gradle are popular build automation tools for Java projects.
- These tools manage dependencies, automate build processes, and enable easy project configuration and deployment.

# 6. Java Community and Documentation:

- Java has a vast and active community of developers, which provides support, forums, tutorials, and open-source libraries.
- The official Java documentation, including the Java API documentation, is a valuable resource for understanding Java language features and classes.

## 7. Enterprise Support:

- Java is widely used in enterprise applications, and there are various frameworks and technologies available to support Java-based enterprise development.
- Java Enterprise Edition (Java EE) provides a set of specifications and APIs for building

enterprise-scale applications.

• Frameworks like Spring, JavaServer Faces (JSF), and Java Persistence API (JPA) simplify the development of enterprise applications.

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