Introduction to Java Technology

Welcome to the introduction to Java technology! This presentation covers the core aspects of Java SE. We will explore the JVM, JRE, JDK, and fundamental features. Join us on this journey.

RP **by Rodrigo Martins Pagliares**

What is Java? A Brief History and Overview

Origin

Java was created by James Gosling at Sun Microsystems.

Timeline

It was released in 1995. Initially called Oak, it was renamed Java.

Purpose

Designed to be platform-independent. Write once, run anywhere.

JVM: The Magic Behind Platform Independence

1

Java Code

You write Java source code.

2

Bytecode

It is compiled into bytecode.

3

JVM

The JVM interprets it on different OS.

The JVM is the cornerstone of Java's portability. It abstracts the underlying hardware. It lets you run Java code on any system.

JRE: Running Java Applications

What it is

JRE is the Java Runtime Environment.

Contains

Contains JVM, core classes, and supporting files.

Purpose

Essential for running Java applications.

JDK: Essential Tools for Java Development

javac

Compiler to convert code to bytecode.

java

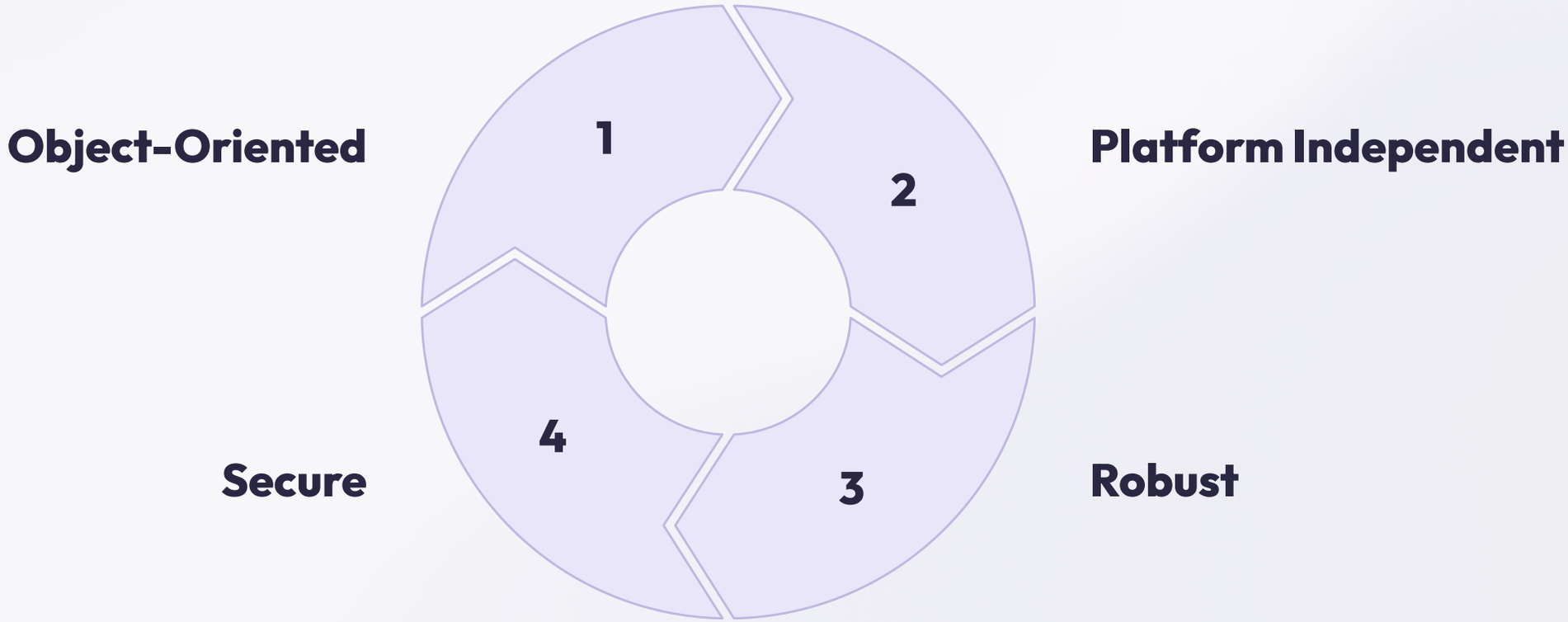
Launcher to run java applications.

javadoc

Used to generate documentation.

The JDK provides the tools to develop Java applications. It includes a compiler, debugger, and other utilities.

Java SE: Building Blocks and Core Features



Java SE offers essential classes and APIs. It supports object-oriented programming. It's known for its robustness and security.

Real-World Applications and Success Stories

1 **Enterprise Apps**

Used in banking and finance systems.

2 **Android Development**

Powers many mobile applications.

3 **Big Data**

Used in Hadoop and Spark frameworks.

Questions?

We hope this presentation was helpful. Do you have any questions?