

Java SE Fundamentals

Creating Your First Java App



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Overview



Create and run an app with IntelliJ IDEA

Run an app from the command line

Basics of statement syntax

Line and block comments

Packages and code organization



Version Check



This version was created by using:

- Java 17
- IntelliJ Idea 2021.3.2



Version Check



This course is 100% applicable to:

- Java 14 to 21
- Any version of IntelliJ Idea from 2016 to 2023



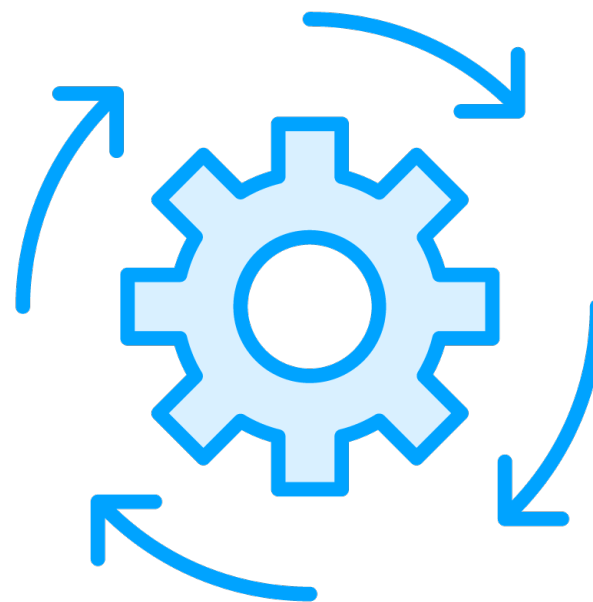
JRE, JDK, and IDE



JRE

Java Runtime Environment

**Enables Java code
execution**

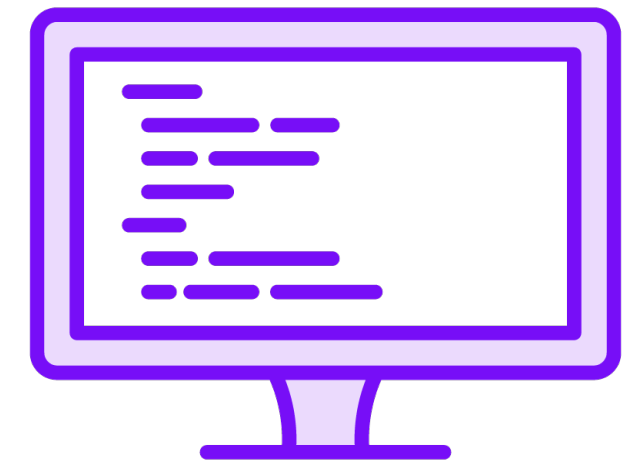


JDK

Java Development Kit

**Provides tools required to
create Java apps**

**Open source version
known as OpenJDK**



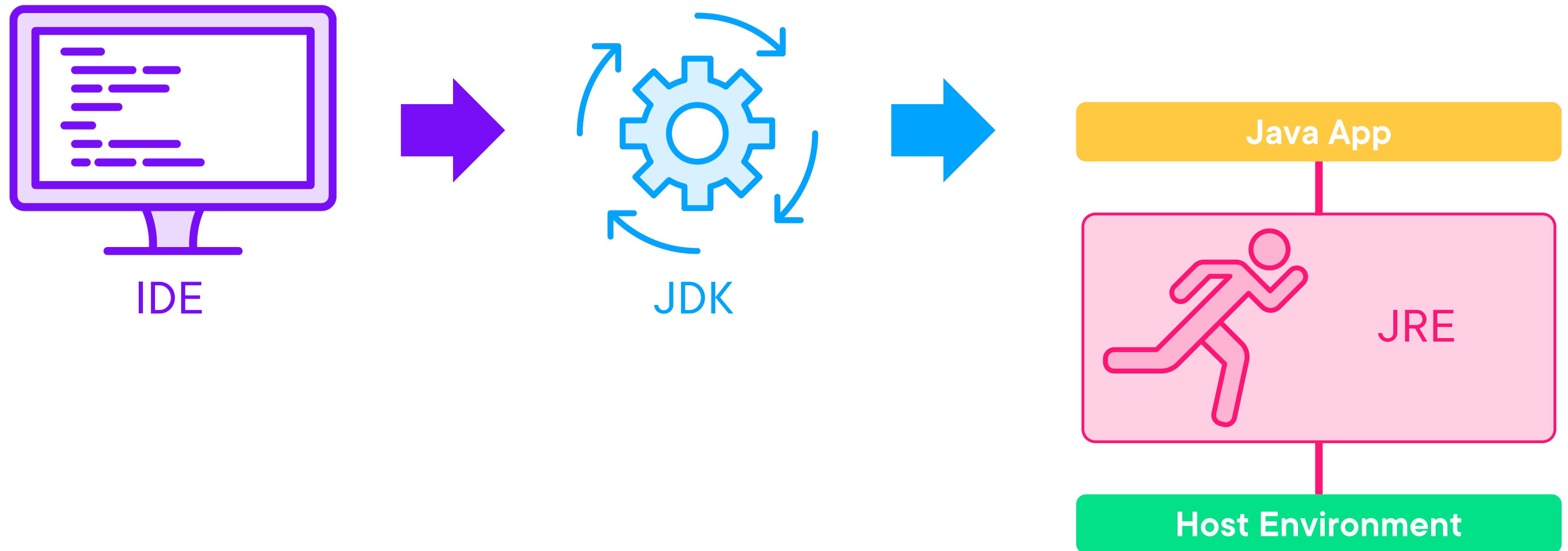
IDE

**Integrated Development
Environment**

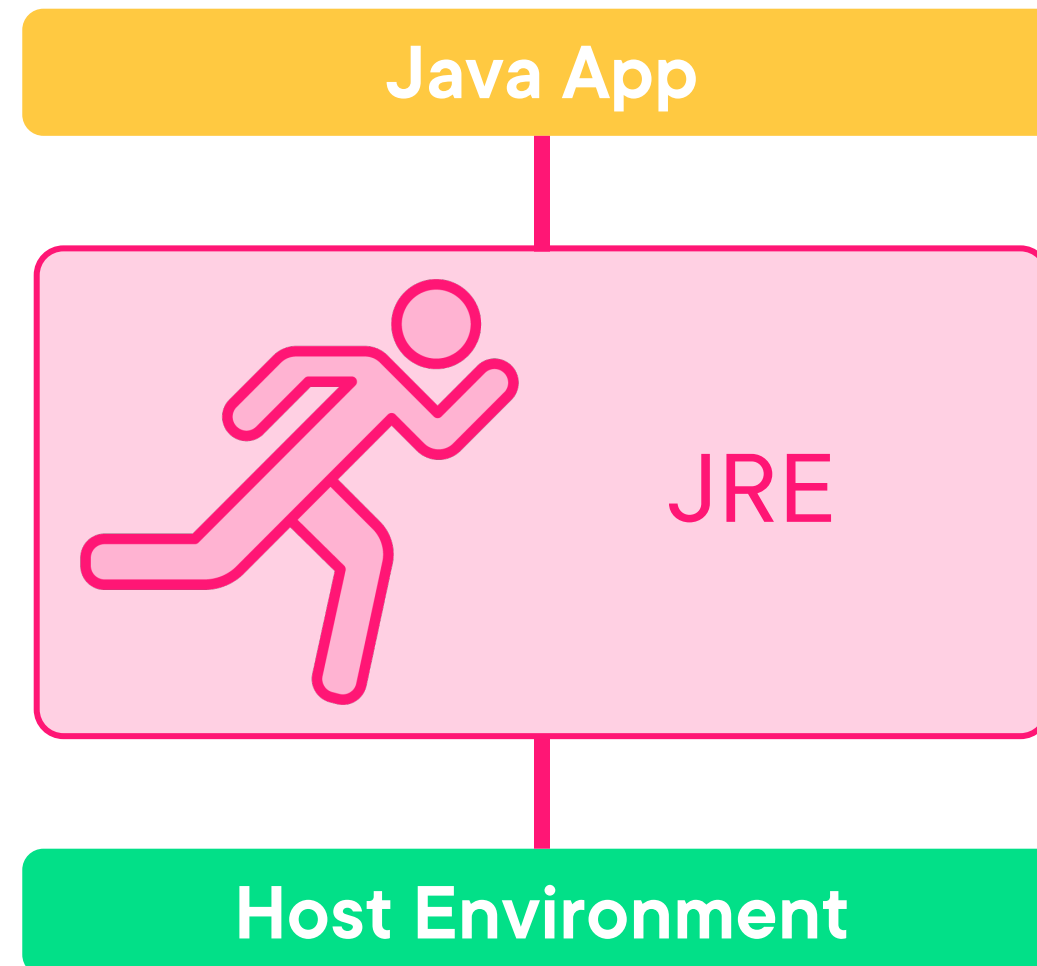
Edit, build, run, debug



The Developer's Java Experience



The User's Java Experience





```
System.out.println( "Pluralsight" ) ;
```

Statement Structure

Programs are made up of statements

Statements end with a semicolon

Parts separated by zero or more whitespace

- Space, tab, newline



Statement Whitespace

```
System.out.println( "Pluralsight" ) ;
```

```
System.out.println("Pluralsight");
```

```
System.out.println (      "Pluralsight" )      ;
```

```
System.out.println
```

```
(
```

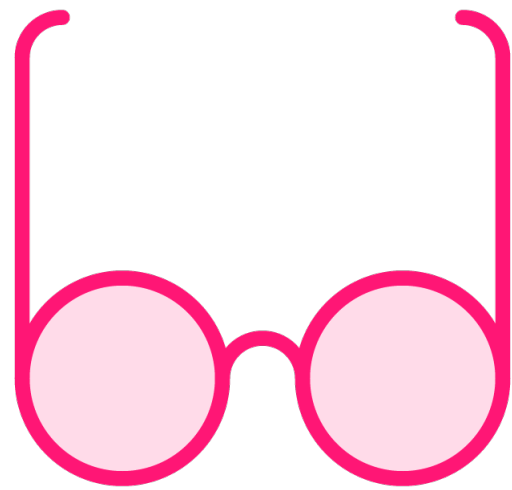
```
    "Pluralsight"
```

```
)
```

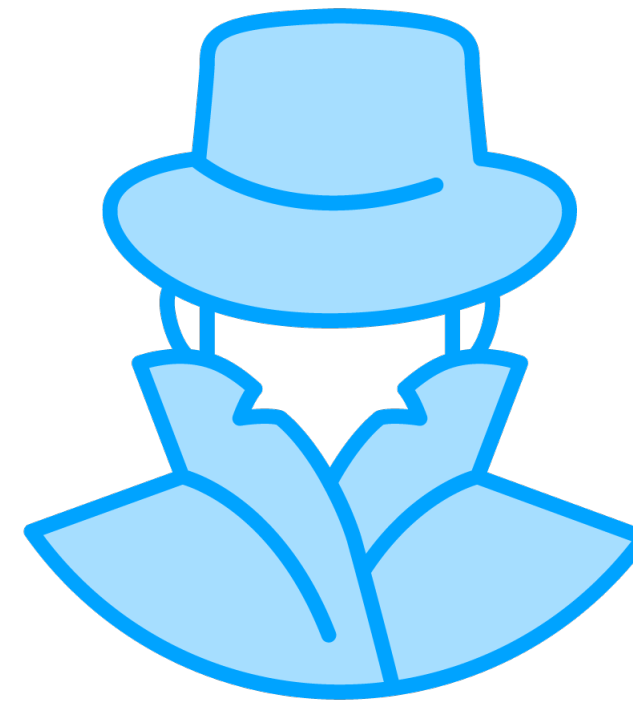
```
;
```



Comments



**Add human-readable notes
to source code**



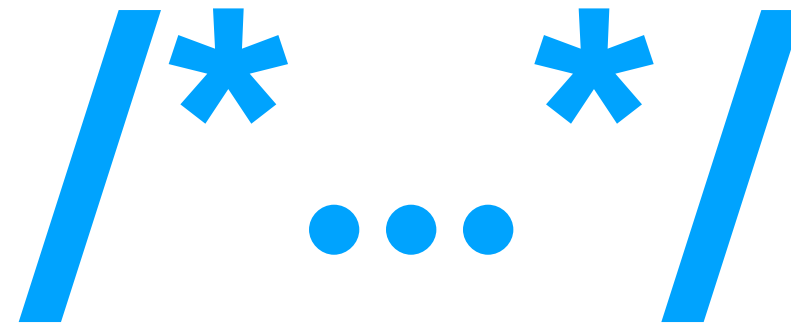
**“Hide” source code without
deleting**

Types of Comments



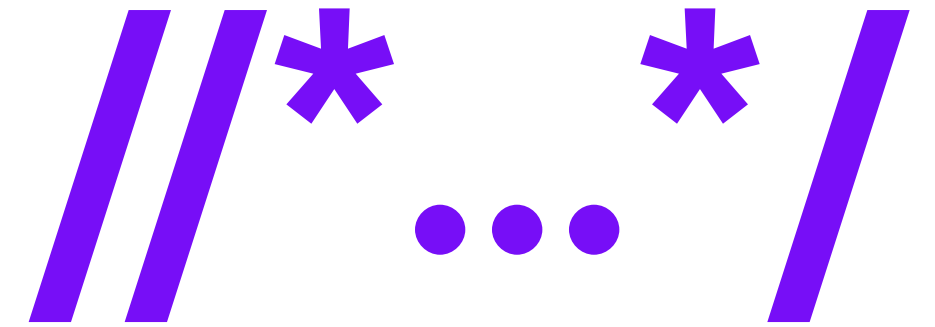
Line comment

Text ignored until end
of current line



Block comment

Text ignored within the
block



Javadoc comment

Compiler treats similar to
block comment

Can be used to generate
documentation



```
package com.pluralsight.example;  
public class Main {  
    public static void main(String[] args) {  
        // . . .  
    }  
}
```

Packages

Packages provide organization
Follow standard naming convention
Affect source code structure



```
package com.pluralsight
```

```
package com.pluralsight
```

```
package com.pluralsight.humanresources
```

Package Naming Conventions

All lowercase

Use reverse domain name notation to assure global uniqueness

Add further qualifiers to assure uniqueness within a company or group



```
package com.pluralsight.example;  
public class Main {  
    public static void main(String[] args) {  
        // . . .  
    }  
}
```

Type Names Are Qualified by Their Package

Main



```
package com.pluralsight.example;  
public class Main {  
    public static void main(String[] args) {  
        // . . .  
    }  
}
```

Package Names Affect Source Code Organization

```
src  
└─ com  
    └─ pluralsight  
        └─ example  
            └─ Main.java
```



Summary



Integrated Development Environment

- Edit, build, run, debug

Java Development Kit

- Tools required to create Java apps
- OpenJDK is open source version

Java Runtime Environment

- Enables Java code execution



Summary



Programs made up of a statements

- Statements end with a semicolon
- Parts separated by zero or more whitespaces

Comments

- Allow human-readable notes
- Hide statements from the compiler

Packages

- Provide type uniqueness
- Source code file structure tied to package name

