Introduction to Java Programming

Java

James Gosling at Sun Microsystems
Released in May 1995
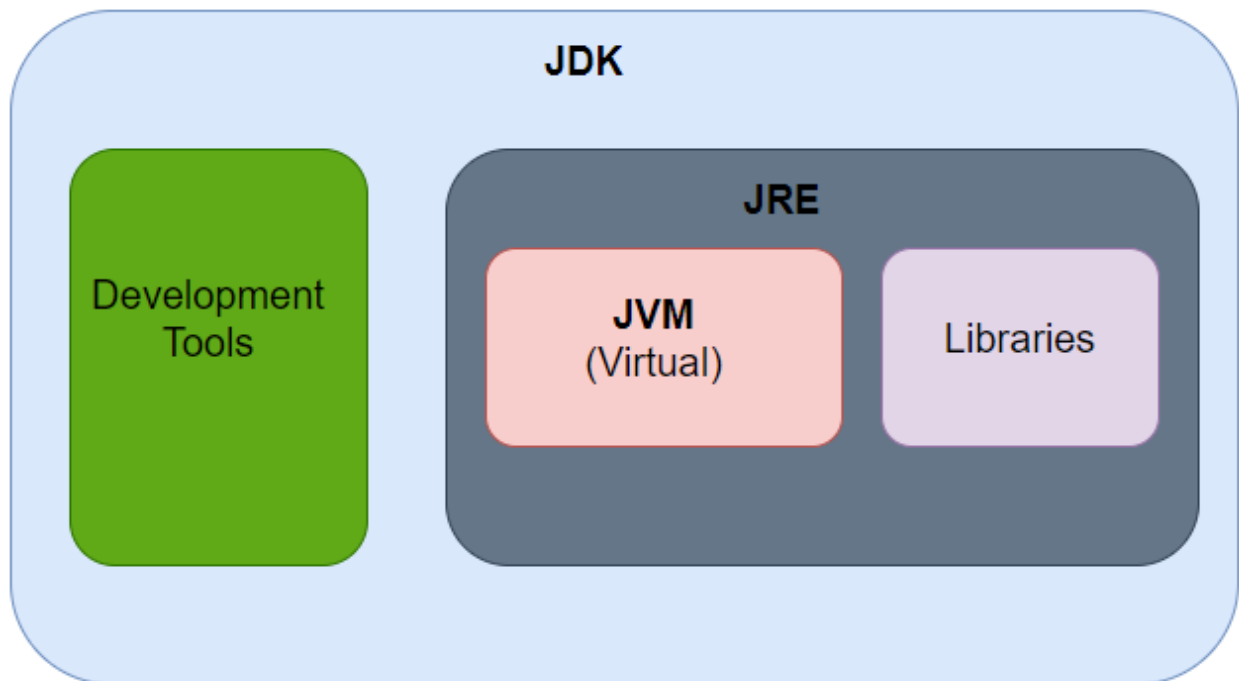Why need another programming language
     C, C++, COBOL, FORTRAN, Perl

Features of Java

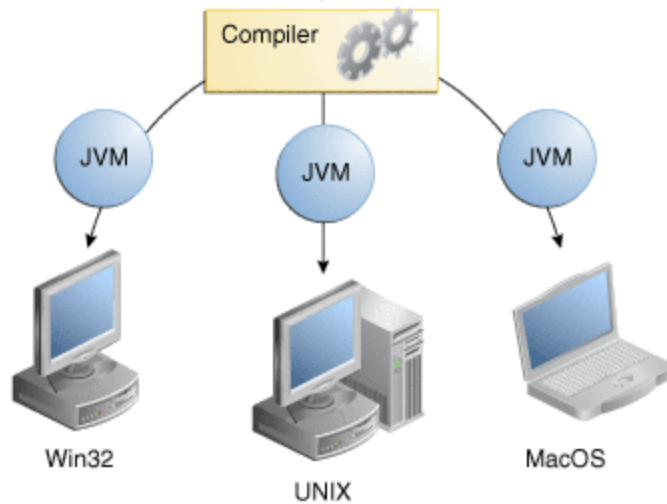# Setting up development environment

JDK
JRE

- Install the JDK if you don't have installed it
- Set path of the jdk/bin
- Create the Java program

- Compile and run the Java program

Java Program

```
class HellowordApp  {
          public static void main(String arg[])  {
          System.out.println("Hello Word");
    }
 }
```

HellowordApp.java

Tutorial4us.com

Compiler

JVM   JVM   JVM

Win32   MacOS

                    UNIX

Programming Text Editor

Notepad (Windows) or TextEdit (macOS)

- For Windows: VS Code, Sublime Text, Atom, NotePad++, TextPad
- For macOS: VS Code, Sublime Text, Atom, gEdit, jEdit.
- For Ubuntu: VS Code, Sublime Text, Atom, gEdit

Programming IDE
- Eclipse
- IntelliJ IDEA
- NetBeans

Java Programs practice

Loops in Java

Looping in programming languages is a feature which facilitates the execution of a set of instructions/functions repeatedly

while loop:

```
while (boolean condition)
{
    loop statements...
}
```

for loop:

```
for (initialization condition; testing
condition;increment/decrement)
{
    statement(s)
}
```

do while:

```
do
{
    statements..
}
while (condition);
```

Conditional Statements in Java

A programming language uses control statements to control the flow of execution of a program based on certain conditions. These are used to cause the flow of execution to advance and branch based on changes to the state of a program.

1. If:

```
if(condition)
{
    // Statements to execute if
    // condition is true
}
```

2. If-else:

```
if (condition)
{
    // Executes this block if
    // condition is true
}
else
{
    // Executes this block if
    // condition is false
}
```

3. Switch-case

```
switch (expression)

{

  case value1:

    statement1;

    break;

  case value2:
```

```
    statement2;
  break;
default:
  statementDefault;}
```