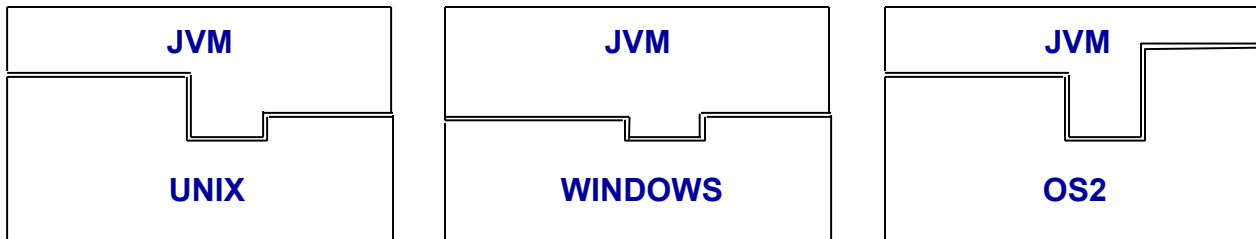# Let's Start

Java – what is it ?

❖ The Java Technology is more that just a new language. The Java Technology is:

- A programming language

- A development environment

- A deployment environment

Java – what is it ?

❖ The JVM

- An imaginary machine that is implemented by emulating it in software on a real machine.

JVM	JVM	JVM
UNIX	WINDOWS	OS2

Java – what is it ?

❖ The Garbage Collector

- A system level thread that track memory allocation

  · Checks for and frees memory no longer needed

  · Is done automatically

  · Can vary dramatically across different JVM implementations

Java – what is it ?

❖ The JDK and the JRE

- The JDK includes the following:

  · JVM

  · Classes

  · Utility

- The JRE includes the JVM and the Classes only.

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A simple Java Application

❖ The following is a simple java application that prints out a welcome message:

```
public class WelcomeGreeting
{
    public static void main(String args[])
    {
        System.out.println("Hello Students:)");
        System.out.println("Good Luck!");
    }
}
```

Classes & Packages

❖ The classes – those that already exist and those that you develop – are grouped into packages.

❖ In order to specify that a new class belongs to specific package you should use the package statement.

Classes & Packages

❖ It is common to include within the package name the domain name of the developing company in a reverse order

```
package com.abelski.java.courses;
```

❖ The outcome of the package statement is an hierarchy of directories that match the hierarchy of the packages.

Java API Documentation

❖ A collection of HTML documents that describe the classes and the packages.

❖ The API documentation is created using the `javadoc` utility program.

Java Runtime Environment

❖ Performs the following three main tasks: loading code, verifying the code and executing it.