CSC 243 - Java Programming

Introduction to Java Programming

Course Outline

- Java programming basics
- Object oriented program design
- The Java class library
- Exception handling
- Event driven programming
- GUI programming

Java Characteristics

- Simple
- Object oriented
- Distributed
- Interpreted
- Robust
- Secure
- Architecture neutral
- Portable
- Performance
- Multithreaded
- Dynamic

http://www.cs.armstrong.edu/liang/JavaCharacteristics.pdf

Java Virtual Machines

- **Java SE (Standard Edition):** The typical configuration for non-corporate users
- **Java EE (Enterprise Edition):** Has additional enterprise-level class libraries
- **Java ME (Micro Edition):** Designed for embedded devices

Running a Java Program on the JVM

1. Create a Java source program
   `FILE.java`
2. Compile the program (generates FILE.class)
   `javac -classpath CLASS_PATH FILE.java`
3. Run the program
   `java -classpath CLASS_PATH FILE`

A Simple Java Program

```java
1 // A standard hello world program
2 public class HelloWorld {
3     public static void main(String[] args) {
4         System.out.println("Hello World!");
5     }
6 }
```