

# ECEN 489: Data Management and Cloud Services

## Task 1 – Necessary Software

### 1 The Java Programming Language

Java is an object-oriented computer programming language that is designed to have few implementation dependencies. Java applications are often compiled to bytecode that can run on any Java virtual machine (JVM), regardless of the underlying computer architecture. This language was originally developed by Sun Microsystems, which has since been acquired by Oracle Corporation. Sun eventually released most of its Java technologies under the GNU General Public License.

Java Platform, Standard Edition (Java SE) is employed to develop and deploy Java applications on mobiles, desktops, servers, and embedded environments. Java offers the rich user interface, performance, versatility, portability, and security that today's applications require. The Java Runtime Environment (JRE) contains a Java virtual machine, along with a set of standard class libraries that implement the Java application programming interface (API). The Java Development Kit (JDK) is a software development kit that contains the necessary tools for the writing and running of Java programs.

#### Action Items

- **Download and Install:** Java SE 7 Update 51 (JRE and JDK).

<http://www.java.com/en/download/manual.jsp>

Note: Chrome does not support Java 7 on Mac OS X. Java 7 runs only on 64-bit browsers and Chrome is a 32-bit browser.

Texas A&M University provides access to several books on Java programming. For instance, *How to Program Java* and *Beginning Programming with Java for Dummies* are both accessible online through the library. These are great resources if you need to dust off your programming skills.

### 2 The Eclipse Foundation

Eclipse is a community for individuals and organizations who wish to collaborate on commercially-friendly open source software. This project was originally established by IBM in 2001. The Eclipse Foundation was subsequently created as an independent not-for-profit corporation to act as the steward of the Eclipse community. The Eclipse integrated development environment (IDE) can be used to develop applications in Java, C++, Python and other languages. It is the primary software development environment for Android applications.

## Action Items

- **Read:** About Eclipse.  
<http://www.eclipse.org/org/>
- **Download and Install:** Eclipse Standard 4.3.1.  
<http://www.eclipse.org/downloads/>