Overall Concepts and Technologies

1. Overall system

Database
(PostgreSQL)

ORMLite   ORMLite

HTML
CSS
Ajax

Web
Application
(Wicket)

Mobile
Application
(Android)

Scanner
(RFID ME™
(RU-888))
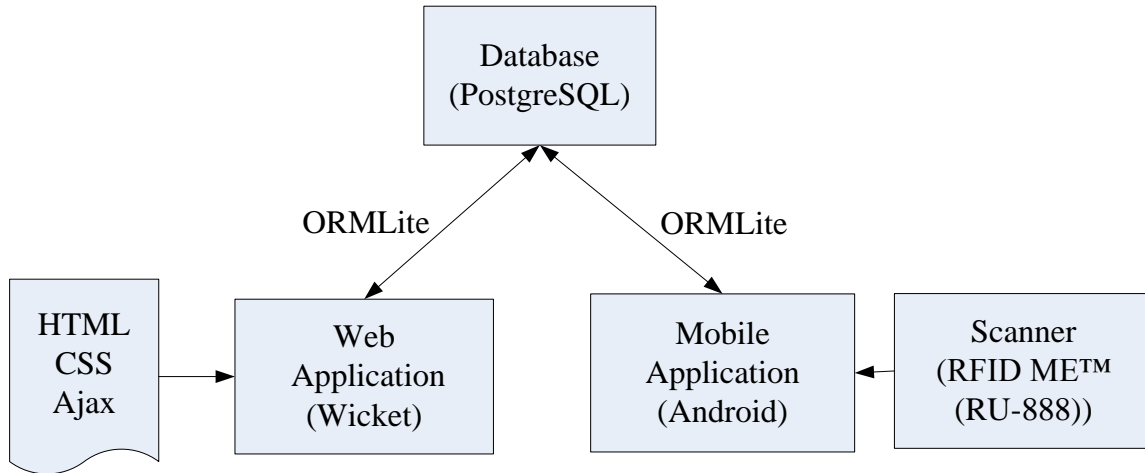
2. Development Environment:

2.1 overall technologies

	WebApp	MobileApp	Database
Language	Java html (Mackup language) css (Mackup language)	Java	
Operational systems		Android 4.2.2	
Client and server	Tomcat (server)	Android App (client)	PostgreSQL (server)

2.2 Eclipse Java IDE
Eclipse Java IDE, (Eclipse IDE for Java EE Developers)
Website: http://www.eclipse.org/
License: ECLIPSE PUBLIC LICENSE

2.3 Team Collaboration:
SourceForge, http://sf.net
Link of our project: https://sourceforge.net/projects/amos2013/

2.4 JUnit
Each class is tested by JUnit test case.
Website: http://junit.org

License: Common Public License 1.0

2.5 Maven
Apache Maven is a software project management and comprehension tool. Maven can manage a project's build, reporting and documentation from a central piece of information. (A version management for libraries)
Website: http://maven.apache.org/

3. Web application

3.1 Operating Environments:
Java, JDK 1.6, Tomcat 6.0

3.2 Languages
Java, html, css and Ajax (Javascript)

3.3 Tomcat 6
Tomcat 6 used as a servlet container.
Website: http://tomcat.apache.org
License: Apache License 2.0

3.4 Libraries:

3.4.1 Wicket
Wicket is one of the web application frameworks for doing web application programming in Java.
Website: http://wicket.apache.org/
License: Apache License 2.0

3.4.2 ORMLite - Android persistence library
ORMLite library is used to control the database, including creating, deleting, updating tables and records, and so on.
Website: http://ormlite.com/
License: Open Source License

3.4.3 jetty-all-server-7.6.3.v20120416.jar
It was pre-deliver with the Wicket quick start to get a new wicket project. It comes from Maven repository.
License: Apache License 2.0 and Eclipse Public License 1.0

3.4.4. postgresql-9.1-901.jdbc4.jar
PostgreSQL is an open source object-relational DBMS supporting almost all SQL constructs.
Website: http://postgresql.org

License: PostgreSQL License

4. Mobile application

4.1 Operating Environments:
Java, JDK 1.6, Android SDK 17

4.2 Operation system:
Android 4.2.2

4.3 Libraries:

4.3.1 ORMLite
Website: http://ormlite.com/
License: Open Source License

4.3.2 mti-rfid.jar
This is the library with low level command instructions from the vendor of the reader, which are used in our app project: For more information go the github project of the vendor: https://github.com/mti-rfid/RFID_ME_GUI_APP

4.3.3 PostgreSQL: postgresql-9.2-1002.jdbc4.jar
PostgreSQL is an open source object-relational DBMS supporting almost all SQL constructs.
Website: http://postgresql.org
License: PostgreSQL License

4.3.5 rfid-inventory-management-web-database.jar
This is self developed package.
License:

5. Hardware

5.1 RFID reader: RFID ME™ (RU-888)
Website: http://www.mti.com.tw/rfidme/

5.2 Tablet: Nexus 7
The layout of the mobile application is optimized to the resolution of this tablet.
Website: http://www.google.com/nexus/7/

6. Database

6.1 Persistence Technologies: PostgreSQL
PostgreSQL is the world's most advanced open source database.
Website: http://postgresql.org
License: PostgreSQL License.