CS3431: SQLJ / Oracle Programming Instruction

1. Setup

```
setenv CLASSPATH ${CLASSPATH}:${ORACLE_HOME}/oc4j/sqlj/lib/translator.jar
setenv CLASSPATH ${CLASSPATH}:${ORACLE_HOME}/oc4j/sqlj/lib/runtime12.jar
```

2. Write SQLJ code

The following is code for sample.sqlj

```
import java.sql.*;
import sqlj.runtime.*;
import sqlj.runtime.ref.*;
import oracle.sqlj.runtime.*;
public class sample {

   public static void main (String args[]) throws SQLException {
      DefaultContext cx1 =
            Oracle.getConnection("jdbc:oracle:thin:@oracle.wpi.edu:1521:WPIDBR2",
                                 "mmani","mmani",true); // Auto Commit = true;
      DefaultContext.setDefaultContext(cx1);
      // Assume Table employees(empnumber int, age int);
      // Insert some data
      try {
         #sql { insert into employees values(4, 25) };
      } catch (SQLException e) {
         System.out.println("SQL Insert 1 fail. \n"+e);
         return;
      }
      try {
         #sql { insert into employees values(3, 35) };
      } catch (SQLException e) {
         System.out.println("SQL Insert 2 fail."+e);
         return;
      }
      // Query table
      #sql iterator Age(int age); // Result data set;
      Age result_age = null;
      int id = 5;
```

```
        try {
           #sql result_age = { select age from employees where empnumber < :id};
                                                    // Using parameters
        } catch (SQLException e) {
           System.out.println("SQL fail."+e);
           return;
        }
        while(result_age.next())  // Fetch each result tuple;
        System.out.println("\n Age = " + result_age.age());
      }

}
```

3. Compile

As the sqlj utility does not seem to be installed in $ORACLE_HOME/bin, we will execute it as:

```
java sqlj.tools.Sqlj sample.sqlj
```