

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
```