Homework

The following homework is designed to cover the course objectives for this unit.

Project 3

Your third project for this course is due at the beginning of Unit 10. Your instructor will provide you with a complete description of the projects for this course. Please refer to that handout for complete details.

Assignment 9.1:

Research the ITT Tech Virtual Library to find answers to the following:

- How can you select an entire row of data from the ResultSet using a single command instead of calling an individual ResultSet.getXXX() method for each column? Is there any difference between JDBC versions 2.0 and 3.0?

- Is it possible to get a count of the number of columns returned from a ResultSet object? If so, how?

- Is there a method that could be used to return the number of rows returned from a ResultSet? If so, what is the name of the method? If not, what is the easiest way to capture the number of rows returned?

Cite your sources using Chicago Manual of Style format. Submit your report to your instructor at the beginning of Unit 10.

Assignment 9.2:

Answer the following questions and submit them to your instructor at the beginning of Unit 10. **Note:** Some questions may go across multiple pages; be sure to read the entire question and all answer options.

1. You may create a RowSet using _____. (Hint: There are multiple answers.)

   a. new JdbcRowSetImpl()
   b. new CachedRowSetImpl()
   c. new JdbcRowSet()
   d. new RowSet()
   e. new CachedRowSet()

2. To obtain a scrollable or updateable result set, you must first create a statement using which syntax?

   a.
```
Statement statement =
connection.createStatement(ResultSet.TYPE_SCROLL_INSENSITIVE,
ResultSet.CONCUR_UPDATABLE);
```
   b.
```
Statement statement =
connection.createStatement(ResultSet.TYPE_SCROLL_SENSITIVE,
ResultSet.CONCUR_READ_ONLY);
```

```
c.  Statement statement =
    connection.createStatement(ResultSet.TYPE_SCROLL_SENSITIVE,
    ResultSet.CONCUR_UPDATABLE);
d.  Statement statement =
    connection.createStatement(ResultSet.TYPE_FORWARD_ONLY,
    ResultSet.CONCUR_READ_ONLY);
```

3. In a scrollable and updateable result set, you can use _____ methods on a result set. (Hint: There are multiple answers.)

    a. last()
    b. insertRow()
    c. first()
    d. updateRow()
    e. deleteRow()

4. Invoking executeBatch() returns _____.

    a. an int value indicating how many SQL statements in the batch have been executed successfully.
    b. an int value indicating how many rows are affected by the batch execution.
    c. a ResultSet
    d. an array of counts, each of which counts the number of the rows affected by the SQL command.

5. RowSet is an extension of _____.

    a. ResultSet
    b. Statement
    c. Connection
    d. CLOB

6. You can store images in a database using data type _____.

    a. BLOB
    b. CLOB
    c. varchar
    d. varchar2

7. You can use a RowSet to set a _____. (Hint: There are multiple answers.)

    a. SQL query statement
    b. database URL
    c. database password
    d. database username

8. To add the SQL statement `"insert into T values (100, 'Smith')"` into the batch into a Statement stmt, you should use which of the following?

   a. `stmt.add("insert into T values (100, 'Smith')");`
   b. `stmt.addBatch("insert into T values (100, 'Smith')");`
   c. `stmt.addBatch('insert into T values (100, 'Smith')');`
   d. `stmt.add('insert into T values (100, 'Smith')');`

9. You can store images in a database.

   a. True
   b. False

10. To add the SQL statement `"insert into T values (100, 'Smith')"` into the batch into a Statement stmt, you should use which of the following?

    a. `stmt.add("insert into T values (100, 'Smith')");`
    b. `stmt.add('insert into T values (100, 'Smith')');`
    c. `stmt.addBatch("insert into T values (100, 'Smith')");`
    d. `stmt.addBatch('insert into T values (100, 'Smith')');`

11. Which of the following methods of the java.sql.Statement class should you call to execute a SQL DELETE statement?

    a. executeQuery
    b. executeDelete
    c. executeStatement
    d. executeUpdate
    e. execute

12. You can change the database by changing a ResultSet_____.

    a. always, however, there is no guarantee when the changes will be written to the underlying database
    b. only when ResultSet is produced by a SQL UPDATE statement
    c. when the transaction isolation level on the connection allows uncommitted reads
    d. when ResultSet is created with CONCUR_UPDATABLE
    e. when ResultSet is created with TYPE_FORWARD_ONLY

13. What usually happens when the database cannot complete an operation that you request by calling a JDBC API?

    a. The return value is null or zero, depending on the method you called.
    b. A JDBCException is thrown.
    c. A SQLException exception is thrown.

     d. An exception is thrown. The database driver determines the type of the exception object.

     e. Your program is terminated.

14. Which of the following JDBC method can be used to execute INSERT, UPDATE, and DELETE statements?

    a. executeQuery()

    b. execute.Start()

    c. execute.()

    d. executeUpdate()