CCSL, Round-37, Exam-6, Quiz-4

1

Where is com.mysql.jdbc.Driver located?

1 in a JAR file classes12.jar

2 in a JAR file ojdbc14.ja

3 in a JAR file mysqljdbc.jar

4 in the standard Java library bundled with JDK

2

Which of the following statements are true about PreparedStatement?

1 PreparedStatement is for SQL query statements only. You cannot create a PreparedStatement for SQL update statements.

2 PreparedStatement is a subinterface of Statement

3 The parameters in a PreparedStatement are denoted using the ‘?’ Sign.

4 PreparedStatement is efficient for repeated executions.

3

Which of the following statements are true?

1 you can send queries and update statements through a Statement object.

2 you may create multiple connections to a database.

3 you may create multiple statements from one connection.

4 you may load multiple JDBC drivers in a program.

4

How do you know in your Java program that a SQL warning is generated as a result of executing a SQL statement in the database?

1 You must invoke the getWarnings() method on the Statement object (or a sub interface thereof)

2 You must catch the unchecked SQLWarningException which is thrown by the method which executes the statement

3 You must catch the checked SQLException which is thrown by the method which executes the statement

4 You must query the ResultSet object about possible warnings generated by the database

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A database URL for a MySQL database named test on host panda.armstrong.edu is \_\_\_\_\_\_\_\_.

1 jdbc:mysql:/panda.armstrong.edu/test

2 jdbc:mysql://panda.armstrong.edu/test

3 jdbc.mysql://panda.armstrong.edu/test

4 jdbc.mysql.//panda.armstrong.edu/test

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ResultSet Meta data are retrieved through \_\_\_\_\_\_\_\_\_\_\_\_.

1 a ResultSet Object

2 a Connection object

3 a Statement object

4 a PreparedStatement object

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Which of the following statements loads the JDBC-ODBC driver?

1 Class.loadClass(sun.jdbc.odbc.JdbcOdbcDriver)

2 Class.forName("sun.jdbc.odbc.JdbcOdbcDriver")

3 Class.forName(sun.jdbc.odbc.JdbcOdbcDriver)

4 Class.loadClass("sun.jdbc.odbc.JdbcOdbcDriver")

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In a relational data model, \_\_\_\_\_\_\_\_\_ defines the representation of the data.

1 Integrity

2 SQL

3 Structure

4 Language

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Which statements about JDBC is true?

1 None of the above

2 JDBC is an API to bridge the object-relational mismatch between OO programs and relational databases

3 JDBC stands for Java DataBase Connectivity

4 JDBC is an API to connect to relational, object- and XML data sources

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Suppose a callable statement is created as follows:

CallableStatement callableStatement = connection.prepareCall("{call sampleProcedure(?, ?, ?)}");

Assume that the first parameter is an IN parameter with value John. To set this parameter value, use

1 callableStatement.setString(1, "John");

2 callableStatement.setString(1, 'John');

3 callableStatement.setString(0, 'John');

4 callableStatement.setString(0, "John");

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Database Meta data are retrieved through \_\_\_\_\_\_\_\_\_\_\_\_.

***Explanation***

Explanation: getMetaData() on a Connection object returns a DatabaseMetaData object.

1 a Statement object

2 a PreparedStatement object

3 a Connection object

4 a ResultSet Object

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What is correct about DDL statements (create, grant,...)?

1 DDL statements are treated as normal sql statements, and are executed by calling the execute() method on a Statement (or a sub interface thereof) object

2 To execute DDL statements, you have to install additional support files

3 DDL statements cannot be executed by making use of JDBC, you should use the native database tools for this.

4 Support for DDL statements will be a feature of a future release of JDBC

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Which of the following are interfaces?

1 ResultSet

2 DriverManager

3 Statement

4 Connection

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What information may be obtained from a DatabaseMetaData object?

1 maximum number of connections to the database

2 maximum table name length and maximum number of columns in a table

3 database URL and product name

4 JDBC driver name and version

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Invoking Class.forName method may throw \_\_\_\_\_\_\_\_\_\_\_.

1 IOException

2 ClassNotFoundException

3 RuntimeException

4 SQLException

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SQL \_\_\_\_\_\_\_\_ statements may change the contents of a database.

1 SELECT

2 UPDATE

3 DELETE

4 INSERT

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What is the function of Class.forName?

1 It is used to create an instance of a driver and register it with the DriverManager

2 Both are false

3 both are true

4 In establishing a connection is to have the appropriate driver connect to the DBMS

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In your program you want to use the JDBC-ODBC Bridge driver. What code do you use?

1 Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");

2 Class.callName("sun.jdbc.odbc.JdbcOdbcDriver");

3 Class.Name.init("sun.jdbc.odbc.JdbcOdbcDriver");

4 Class.callfunc("JdbcOdbcDriver");

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What happens if you call deleteRow() on a ResultSet object?

1 the row you are positioned on is deleted from the ResultSet, but not from the database.

2 You will get a compile error: the method does not exist because you cannot delete rows from a ResultSet

3 The row you are positioned on is deleted from the ResultSet and from the database

4 The result depends on whether the property synchonizeWithDataSource is set to true or false

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To connect to a local MySQL database named test, use

1 Connection connection = DriverManager.connect("jdbc:mysql://localhost/test");

2 Connection connection = DriverManager.getConnection("mysql:jdbc://localhost/test");

3 Connection connection = DriverManager.getConnection("jdbc:mysql://localhost/test");

4 Connection connection = DriverManager.getConnection(jdbc:mysql://localhost/test);

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A database URL for an access database source test is \_\_\_\_\_\_\_\_.

1 test

2 jdbc:odbc:test

3 jdbcodbc:test

4 sun.jdbc:odbc:test

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If a PreparedStatement ps is a SQL SELECT statement, you execute the statement using \_\_\_\_\_\_\_\_\_.

1 preparedStatement.executeUpdate();

2 preparedStatement.query();

3 preparedStatement.execute();

4 preparedStatement.executeQuery();

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Which packages contain the JDBC classes?

1 java.sql and javax.sql

2 java.rdb and javax.rdb

3 java.jdbc and java.jdbc.sql

4 java.jdbc and javax.jdbc

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What is the meaning of ResultSet.TYPE\_SCROLL\_INSENSITIVE

1 This means that the ResultSet is sensitive to scrolling, but insensitive to changes made by others

2 The meaning depends on the type of data source, and the type and version of the driver you use with this data source

3 This means that the ResultSet is sensitive to scrolling, but insensitive to updates, i.e. not updateable

4 This means that the ResultSet is insensitive to scrolling

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Suppose that your program accesses MySQL or Oracle database. Which of the following statements are true?

1 if the driver for MySQL and Oracle are not in the classpath, the program will have a syntax error.

2 if the database is not available, the program will have a runtime error, when attempting to create a Connection object.

3 if the database is not available, the program will have a syntax error.

4 if the driver for MySQL and Oracle are not in the classpath, the program will have a runtime error, indicating that the driver class cannot be loaded.

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Suppose a callable statement is created as follows:

CallableStatement callableStatement = connection.prepareCall("{call sampleProcedure(?, ?, ?)}");

Assume that the second parameter is an OUT parameter with value John. To register this parameter, use

1 callableStatement.registerOutParameter(2, java.sql.Types.STRING);

2 none of them

3 callableStatement.registerOutParameter(0, java.sql.Types.STRING);

4 callableStatement.registerOutParameter(1, java.sql.Types.STRING);

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Suppose a prepared statement is created as follows:

Statement preparedStatement = connection.prepareStatement("insert into Student (firstName, mi, lastName)” + "values (?, ?, ?)");

To set a value John to the first parameter, use

1 preparedStatement.setString(0, "John");

2 preparedStatement.setString(0, 'John');

3 preparedStatement.setString(1, "John");

4 preparedStatement.setString(1, 'John');

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How can you start a database transaction in the database?

1 by asking a Transaction object to your Connection, and calling the method begin() on it

2 By asking a Transaction object to your Connection, and setting the autoCommit property of the Transaction to false

3 By calling the method beginTransaction() on the Connection object

4 By setting the autoCommit property of the Connection to false, and execute a statement in the database

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Analyze the following code:

ResultSet resultSet = statement.executeQuery("select firstName, mi, lastName from Student where lastName" + " = 'Smith'");

System.out.println(resultSet.getString(1))

1 resultSet.getString(1) returns the firstName field in the result set.

2 resultSet.getString(1) returns the mi field in the result set.

3 if the SQL SELECT statement returns no result, resultSet is null.

4 The program will have a runtime error, because the cursor in resultSet does not point to a row. You must use resultSet.next() to move the cursor to the first row in the result set. Subsequently, resultSet.next() moves the cursor to the next row in the result set.

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Which of the following statements are true about CallableStatement?

1 CallableStatement is for executing predefined functions and procedures.

2 CallableStatement is for SQL query statements only. You cannot create a CallableStatement for SQL update statements.

3 CallableStatement is more efficient than PreparedStatement.

4 CallableStatement is a subinterface of PreparedStatement

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To execute a SELECT statement "select \* from Address" on a Statement object stmt, use

1 stmt.execute("select \* from Address");

2 stmt.executeUpdate("select \* from Address");

3 stmt.query("select \* from Address");

4 stmt.executeQuery("select \* from Address");

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Are ResultSets updateable?

1 No, ResultSets are never updateable. You must explicitly execute DML statements (i.e.insert, delete and update) to change the data in the underlying database

2 Yes, but only if the ResultSet is an object of class UpdateableResultSet, and if the driver and database support this option

3 Yes, but only if you indicate a concurrency strategy when executing the statement, and if the driver and database support this option

4 Yes, but only if you call the method openCursor() on the ResultSet, and if the driver and database support this option

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To create a statement on a Connection object conn, use

1 Statement statement = connection.create();

2 Statement statement = conn.createStatement();

3 Statement statement = Connection.createStatement();

4 Statement statement = conn.statement();

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What information may be obtained from a ResultSetMetaData object?

1 database URL and product name

2 number of columns in the result set

3 JDBC driver name and version

4 number of rows in the result set

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How can you execute a stored procedure in the database?

1 Call method execute() on a CallableStatement object

2 Call method executeProcedure() on a Statement object

3 Call method execute() on a StoredProcedure object

4 Call method run() on a ProcedureCommand object

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In a relational data model, \_\_\_\_\_\_\_\_\_ imposes constraints on the data.

1 Structure

2 Integrity

3 SQL

4 Language

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How can you retrieve information from a ResultSet?

1 by invoking the special getter methods on the ResultSet: getString(...), get Boolean(...), getClob(...),...

2 By invoking the method get (..., String type) on the ResultSet, where type is the database type

3 By invoking the method get (..., Type type) on the ResultSet, where Type is an object which represents a database type

4 By invoking the method getValue (...), and cast the result to the desired java type

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What statements are correct about batched insert and updates?

1 None of the above

2 To do a batched update/insert, you call addBatch(String statement) on a Statement object for each statement you want to execute in the batch

3 Batch insert and updates are only possible when making use of parameterized queries.

4 to create a batch of insert and update statements, you create an object of type Batch, and call the method addStatement(String statement) for each statement you want to execute in the batch

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You run a SELECT statement, and multiple duplicates of values are retrieved. What keyword can you use to retrieve only the non-duplicate data?

1 INDIVIDUAL

2 DISTINCT

3 SEPARATE

4 DUBPLICATE

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Which one of the following will not get the data from the first column of ResultSet rs, returned from executing the following SQL statement: SELECT name, rank, serialNo FROM employee?

1 rs.getString(2)

2 rs.getString(“name”)

3 rs.getString(1)

4 none of them

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What is the return value from stmt.executeUpdate("insert into T values (100, 'Smith')")

1 void

2 an int value indicating how many rows are effected from the invocation

3 a value indicating whether the SQL statement has been executed successfully

4 an object that contains the status of the execution

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Which type of Statements can execute parameterized queries?

1 ParameterizedStatement and CallableStatement

2 All kinds of Statements (i.e. which implement a sub interface of Statement)

3 ParameterizedStatement

4 PreparedStatement

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What is, in terms of JDBC, a DataSource?

1 A DataSource is a factory of connections to a physical data source

2 A DataSource is the basic service for managing a set of JDBC drivers

3 A DataSource is the Java representation of a physical data source

4 A DataSource is a registry point for JNDI-services

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What happens if you call the method close() on a ResultSet object?

1 you will get a SQLException, because only Statement objects can close ResultSets

2 the ResultSet, together with the Statement which created it and the Connection from which the Statement was retrieved, will be closed and release all database and JDBC resources

3 the method close() does not exist for a ResultSet. Only Connections can be closed

4 the database and JDBC resources are released

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How can you execute DML statements (i.e. insert, delete, update) in the database?

1 By making use of the execute(...) statement of the DataModificationStatement object

2 By invoking the executeInsert(...), executeDelete(...) or executeUpdate(...) methods of the DataModificationStatement object

3 By invoking the execute(...) or executeUpdate(...) method of a normal Statement object or a sub-interface object thereof

4 By making use of the InsertStatement, DeleteStatement or UpdateStatement classes

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What statements are correct about JDBC transactions?

1 A transaction is a set of successfully executed statements in the database

2 A transaction is finished when commit() or rollback() is called on the Transaction object

3 A transaction is finished when commit() or rollback() is called on the Connection object

4 All of the above