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

5

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

6

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

1 a ResultSet Object

2 a Connection object

- 3 a Statement object

4 a PreparedStatement object

7

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")

8

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

1 Integrity

- 2 SQL

3 Structure

4 Language

9

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

14

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

16

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

1 SELECT

- 2 UPDATE

3 DELETE

4 INSERT

17

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 preparedStatement 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

24

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');

28

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.

30

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

40

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

41

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