

Chapter 9 Quiz

Due Nov 7 at 11:59pm**Points** 100**Questions** 25**Time Limit** None**Allowed Attempts** 2

Attempt History

	Attempt	Time	Score
KEPT	Attempt 2	12 minutes	96 out of 100
LATEST	Attempt 2	12 minutes	96 out of 100
	Attempt 1	25 minutes	92 out of 100

❗ Correct answers will be available on Dec 14 at 12am.

Score for this attempt: **96** out of 100

Submitted Nov 7 at 11:49am

This attempt took 12 minutes.

Question 1

4 / 4 pts

Assume that `databaseConnection` is a valid connection to the Faculty database in a Connector/Python program. What is the output of the code below?

```
dbCursor = databaseConnection.cursor()
dbQuery = ('UPDATE Teacher SET FirstName = "Mary" WHERE TeacherID=45631')
databaseConnection.commit()
dbCursor.close()
dbConnection.close()
```

☐ The Teacher table is updated with the new values.

☐ No result because no database connection was created.

☒ No change on the Teacher table because the dbQuery has not been executed.

☐ There would be an error.

Question 2

4 / 4 pts

Which of the following is an example of database programming?

☐ Creating tables and columns using SQL in a database administration tool

☐ Creating a static web page

☐ Creating a database using a database server administration tool

☒ Creating a web application using Java and SQL

Question 3

4 / 4 pts

In a Connector/Python program, the _____ method prevents _____, which is a type of attack that causes a program to execute malicious

SQL statements.

- ☐ cursor.commit(), brute-force
- ☐ cursor.close(), phishing
- ☒ cursor.execute(), SQL injection
- ☐ cursor.rollback(), privilege escalation

Question 4

4 / 4 pts

Which of the following database programming techniques is an extension of the SQL language that is typically used for database applications?

- ☐ Embedded SQL
- ☐ API
- ☐ Functional Programming
- ☒ Procedural SQL

Question 5

4 / 4 pts

Why would mysql.connector.connect() throw an exception in a

Connector/Python program?

- ☐ The function was called without a CREATE TABLE statement.
- ☒ The function was called with a username that does not have access to the database.
- ☐ The function was called outside a try-except statement.
- ☐ The function was called without a matching connection.close() call.

Question 6

4 / 4 pts

Refer to the stored procedure. What is the correct call syntax to get the number of classes taught by Maggie Wilson with ID - 45631 through a stored procedure call from the command line?

```
CREATE PROCEDURE TeacherClassLoad(IN teachID INT, OUT numberOfClasses INT)
SELECT COUNT(*)
INTO numberOfClasses
FROM Class
WHERE TeacherID = teachID;
```

- ☒ CALL TeacherClassLoad(45631, @numberOfClasses)
- ☐ CALL TeacherClassLoad(45631, numberOfClasses)
- ☐ CALL TeacherClassLoad("45631", @numberOfClasses)
- ☐ CALL TeacherClassLoad("45631", "numberOfClasses")

Question 7**4 / 4 pts**

In database APIs, ____ a query is a term used when compiling happens before executing the query.

- ☐ compiling
- ☐ storing
- ☒ preparing
- ☐ managing

Question 8**4 / 4 pts**

Which statement should replace XXX?

```
CREATE FUNCTION GetTeacherID(teacherLastName VARCHAR(20))
  RETURNS INT
  XXX
BEGIN
  DECLARE t_id INT;
  SELECT TeacherID
  INTO t_id
  FROM Teacher
  WHERE LastName = teacherLastName;
END;
```

- ☐ DETERMINISTIC
- ☒ READS SQL DATA

☐ NO SQL

☐ SQL

Question 9

4 / 4 pts

Database queries are commonly implemented using a declarative programming language because of which two main reasons?

☐ Ability to reuse classes and easier to learn

☐ Less storage requirements and can be easily modified

☐ Requires no translator and directly understood by the computer

☒ Easier programming and faster execution

Question 10

4 / 4 pts

In order to run a program with Embedded SQL, the compiler _____.

☐ ignores all the non-SQL syntax, runs the code and exits the program after running

☒

translates the SQL code to the host language first, and then to an executable program



converts all statements to SQL and compiles the result to an intermediate language



compiles the SQL code to machine language and then to an executable program

Question 11

4 / 4 pts

API defines _____ for applications written in a procedural programming language and _____ for applications in object-oriented languages.



sql calls, objects



application calls, entities



function calls, models



procedure calls, classes

Question 12

4 / 4 pts

A developer wants to create an application using the PHP language. Which of the following APIs can the developer use to interact with the database?

- ☒ PDO
- ☐ JDBC
- ☐ SQL/CLI
- ☐ ADO.NET

Question 13**4 / 4 pts**

Programming languages fall into either _____ or _____ paradigms.

- ☐ declarative, object-oriented
- ☒ imperative, declarative
- ☐ imperative, object-oriented
- ☐ declarative, functional

Question 14**4 / 4 pts**

A/An _____ will retrieve rows from a query that has multiple rows in the result set.

- ☐ fetch
- ☐ shared variable
- ☐ index
- ☒ cursor

Question 15

4 / 4 pts

_____ allows a programmer to create an SQL query with a PREPARE statement at run-time.

- ☐ Static SQL
- ☐ Complex SQL
- ☐ Embedded SQL
- ☒ Dynamic SQL

Question 16

4 / 4 pts

Assume the lastName value is obtained from a submitted form. Which values should replace XXX and YYY in the PHP code?

```
$sql = "INSERT INTO Teacher (LastName) " .  
      "VALUES (XXX)";
```

```
$stmt = $pdo->prepare($sql);  
$stmt->bindValue(YYY, $_POST["lastName"]);  
$stmt->execute();
```

- ☒ :lastName , "lastName"
- ☐ :lastName, @lastName
- ☐ :lastName, :lastName
- ☐ \$_lastName, \$_lastName

Question 17

4 / 4 pts

In a PHP application using PDO, a _____ consists of the host, port, and name of the database that will be used to establish a connection to the database.

- ☐ PDO Exception
- ☒ Data Source Name
- ☐ PDO Object

☐ Data Connection

Incorrect

Question 18

0 / 4 pts

An application may use a _____ API, which in turn uses a _____ API to access unsupported data sources.

- ☐ primary, secondary
- ☐ programming, database
- ☒ driver, driver manager
- ☐ database, table

Question 19

4 / 4 pts

Which of the following required keywords specifies if the trigger will affect all rows of the table?

- ☐ ON TableName
- ☐ INSERT | UPDATE | DELETE
- ☒ FOR EACH ROW
- ☐ BEFORE | AFTER

Question 20**4 / 4 pts**

Which of the following Connector/Python cursor properties returns the number of items affected by a query?

- ☐ cursor.rows
- ☐ cursor.count
- ☒ cursor.rowcount
- ☐ cursor.column_names

Question 21**4 / 4 pts**

Which of the following database programming techniques is commonly used with object-oriented programming languages?

- ☐ Procedural SQL
- ☒ API
- ☐ Functional Programming
- ☐ Embedded SQL

Question 22**4 / 4 pts**

Which statements should replace XXX and YYY to execute the SELECT statement when the teacherID value is valid?

```
CREATE PROCEDURE TeacherClassLoad(IN teachID INT)
BEGIN
  DECLARE numberOfClasses INT;
  XXX
    SELECT COUNT(*)
    INTO numberOfClasses
    FROM Class
    WHERE TeacherID = teachID;
  YYY;
END;
```

- ☐ WHILE teachID IS NOT NULL, END WHILE
- ☐ WHILE teachID IS NOT NULL DO, END WHILE
- ☒ IF teachID IS NOT NULL THEN, END IF
- ☐ IF teachID IS NOT NULL, END IF

Question 23**4 / 4 pts**

The _____ keyword helps the compiler identify embedded SQL statements in a program.

- ☐ EMBED SQL
- ☒ EXEC SQL

☐ PROCESS SQL☐ RUN SQL**Question 24****4 / 4 pts**

Which statements should replace XXX and YYY in the Connector/Python program?

```
dbCursor = databaseConnection.cursor()
dbQuery = ('SELECT LastName, FirstName FROM Teacher'
           'WHERE TeacherId = %s')
teacherData = (12346)
dbCursor.execute(dbQuery, teacherData)

for row in dbCursor.fetchall():
    print('FirstName', XXX, 'Last Name', YYY)

dbCursor.close()
```

☐ row[0], row[1]☐ row['firstname'], row['lastname']☒ row[1], row[0]☐ 'FirstName', 'LastName'**Question 25****4 / 4 pts**

_____ is an ISO standard that extends procedural SQL for use in stored procedures.

☒ SQL/PSM

☐ SQL/CI

☐ SQL/DS

☐ SQL/SAS

Quiz Score: **96** out of 100