Exam : CIW 1D0-441

Title : CIW DATABASE SPECIALIST

Update : Demo

1.A foreign key maps to a:

A.prime key.

B.indirect key.

C.parent key.

D.composite key.

Correct:C

2.Consider the relation shown in the exhibit. Which of the following SQL statements would properly add information for a new employee?

Emp_ID	First_Name	Last_Name	Birth_Date
0001	Helen	Lee	12-05-75
0002	James	Smith	10-25-76
0003	Eliza	Perez	02-15-80
0004	Samuel	Hayes	11-07-71

Employee Relation

A.INSERT INTO Employee VALUES(0005, Tim, Bogart, 03-15-77);

B.INSERT INTO Employee(Emp_ID, First_Name, Last_Name, Birth_Date) VALUES(0004, Tim, Bogart, 03-15-77);

C.INSERT INTO Employee(Emp_ID, First_Name, Last_Name, Birth_Date) VALUES(0005, Tim, Bogart, 03-05-77);

D.INSERT INTO Employee (Emp_ID, First_Name, Last_Name, Birth_Date) VALUES (0005, Tim, Bogart, 03-05-77);

Correct:D

3.Which pair of relational algebraic operations requires union compatibility?

A.Union and join

B.Selection and projection

C.Intersection and difference

D.Cartesian product and intersection

Correct:C

4.Which static member of the ResultSet class should be used to create an updatable result set?

A.ResultSet.TYPE_FORWARD_ONLY

B.ResultSet.TYPE_FORWARD_UPDATABLE

C.ResultSet.TYPE_SCROLL_INSENSITIVE

D.ResultSet.TYPE_SCROLL_SENSITIVE

Correct:D

5.Which method of the Statement interface could be used to delete data from a database?

A.executeUpdate

B.executeQuery

C.close

D.clearBatch

Correct:A

6.Which JDBC interface is used to extract information about the database schema?

A.ResultSet
B.Connection
C.DatabaseMetaData
D.ResultSetMetaData

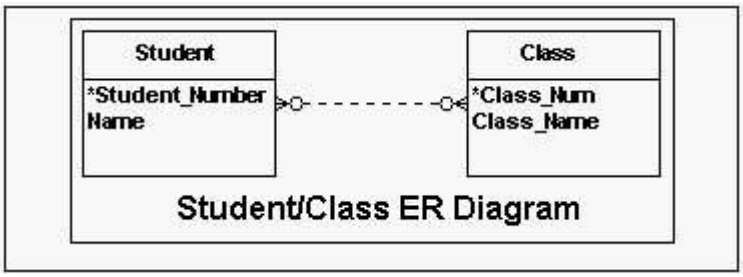
Correct:C

7.Which of the following statements is true of the Connection interface?

A.Each JDBC client application must provide a class that implements the Connection interface.
B.Each JDBC driver provides a class that implements the Connection interface.
C.Each JVM provides a class that implements the Connection interface.
D.The Connection interface can be used to load a JDBC driver.

Correct:B

8.Consider the Entity-Relation diagram shown in the exhibit. When the logical database design phase is completed, which of the following is a valid DBDL description of the base relations for the Entity-Relation diagram?



A.STUDENT(Student_Number: integer NOT NULL Name: variable length character string length 20 NOT NULL) Primary Key Student_Number CLASS(Class_Num: integer NOT NULL Class_Name: integer NOT NULL) Primary Key Class_Num
B.STUDENT(Student_Number: integer NOT NULL Name: variable length character string length 20 NOT NULL) Primary Key Student_Number CLASS(Class_Num: integer NOT NULL Class_Name: integer NOT NULL) Primary Key Class_Num Foreign Key Class_Num References STUDENT
C.STUDENT(Student_Number: integer NOT NULL Name: variable length character string length 20 NOT NULL) Primary Key Student_Number STU_CLASS(Student_Number: integer NOT NULL Class_Num: integer NOT NULL) Primary Key Student_Number CLASS(Class_Num: integer NOT NULL Class_Name: integer NOT NULL) Primary Key Class_Num
D.STUDENT(Student_Number: integer NOT NULL Name: variable length character string length 20 NOT NULL) Primary Key Student_Number STU_CLASS(Student_Number: integer NOT NULL Class_Num: integer NOT NULL) Primary Key Student_Number, Class_Num CLASS(Class_Num: integer NOT NULL Class_Name: integer NOT NULL) Primary Key Class_Num

Correct:D

9.What is the highest normal form of the relation(s) shown in the exhibit?

Teacher_ID	Teacher_Name	Dept_Code	Office_No	Teacher_Aide	Dept_Phone
A12	M. Smith	Acc	A234	T. Juarez	555-1375
E32	L. Rodriguez	Eco	E781	L. James	555-7402
M34	Y. Yee	Math	M442	J. Daye	555-2345
S29	H. Huan	Sci	S301	R. Nguyen	555-8945
A15	M. Chang	Acc	A257	T. Juarez	555-1375
E42	T. Colton	Eco	E331	L. James	555-7402
M74	R. Perez	Math	M662	J. Daye	555-2345

Teacher Relation

A.Boyce-Codd normal form
B.First normal form
C.Second normal form
D.Third normal form

Correct:C

10.Consider the following domain description: domain Student_ID: integer domain Grade: fixed length character string length 1 To meet business needs, you must add enterprise constraints to this domain description. The Student_ID should always be a positive integer. The initial value of Student_ID should be 0 (zero) to indicate that a valid ID number has not been assigned. The Grade should be limited to the letters A through F. Which SQL statements would perform these tasks?

A.CREATE DOMAIN Student_ID AS INTEGER DEFAULT 0 CHECK (Student_ID > -1); CREATE DOMAIN Grade AS CHAR(1); CHECK (Student_ID IN ('A','B','C','D','E','F'));
B.CREATE DOMAIN Student_ID AS INTEGER CHECK (Student_ID > -1); CREATE DOMAIN Grade AS CHAR(1); DEFAULT NULL CHECK (Student_ID IN ('A','B','C','D','E','F'));
C.CREATE DOMAIN Student_ID AS INTEGER; CREATE DOMAIN Grade AS CHAR(1); CONSTRAINT ENTERPRISE CHECK;
D.CREATE TABLE ENTERPRISE (Student_ID INTEGER NULL Grade VARCHAR(1) NOT NULL, CONSTRAINT ENTERPRISE CHECK;

Correct:A

11.Assuming that conn references a valid and open connection to the database, which code segment will insert values into the Employees relation?

A.conn.executeUpdate (INSERT INTO Employees VALUES + (1001, 'Karen Hughes', 55000));
B.Statement s = conn.createStatement(); s.execute(INSERT INTO Employees VALUES + (1001, 'Karen Hughes', 55000));
C.Statement s = conn.createStatement(); s.executeQuery(INSERT INTO Employees VALUES + (1001, 'Karen Hughes', 55000));
D.Statement s = new Statement(); s.executeUpdate(INSERT INTO Employees VALUES + (1001, 'Karen Hughes', 55000));

Correct:B

12.Which term describes one or more database operations that are executed as a single unit?

A.Update
B.Transaction

C.Encapsulation

D.Operational group

Correct:B

13.What is the highest normal form of the relation(s) shown in the exhibit?

Emp_ID	Emp_Name	Dept_ID	Dept_Name	Mngr_ID	Mngr_Name	P_No	P_Name	Start_Date
001	Lee	25	R & D	12	Ames	1,4	Adams, Jones	1-1-02, 2-1-02
002	Smith	35	Marketing	22	Yee	2,5	Ingram, PSoft	2-2-02, 3-2-02
003	Perez	25	R & D	12	Ames	3	IMacks	5-5-02

Employee Relation

A.Second normal form

B.Third normal form

C.No normal form

D.First normal form

Correct:C

14.Consider the following SQL statement: SELECT * FROM Orders WHERE Order_Date LIKE %02 ORDER BY Sales_Rep_No, Amount DESC; Using the Orders Relation shown in the exhibit, which of the following tables shows the result of this SQL statement?

exhibit 1.134

Order_No	Order_Date	Customer_No	Sales_Rep_No	Amount
2001	11-04-01	1001	108	24.89
2004	12-14-01	1004	210	126.99
2006	01-14-02	1008	187	1216.69
2009	01-15-02	1008	350	926.89
2012	02-02-02	1001	108	816.09
2015	02-10-02	1004	210	1818.19
2016	02-15-02	1006	109	678.99
2019	02-22-02	1003	350	1936.69
2024	02-22-02	1004	210	1226.09
2025	03-01-02	1009	108	538.89
2028	03-04-02	1006	109	1648.49

Orders Relation

Option A

Order_No	Order_Date	Customer_No	Sales_Rep_No	Amount
2009	01/15/02	1008	350	926.89
2019	02-22-02	1003	350	1936.69
2024	02-22-02	1004	210	1226.09
2015	02-10-02	1004	210	1818.19
2006	01/14/02	1008	187	1216.69
2016	02-16-02	1006	109	678.18
2028	03-04-02	1006	109	1648.49
2025	03-01-02	1009	108	538.89
2012	02/02/02	1001	108	816.09

Option B

Order_No	Order_Date	Customer_No	Sales_Rep_No	Amount
2012	02/02/02	1001	108	816.09
2025	03-01-02	1009	108	538.89
2028	03-04-02	1006	109	1648.49
2016	02-16-02	1006	109	678.18
2006	01/14/02	1008	187	1216.69
2015	02-10-02	1004	210	1818.19
2024	02-22-02	1004	210	1226.09
2019	02-22-02	1003	350	1936.69
2009	01/15/02	1008	350	926.89

Option C

Order_No	Order_Date	Customer_No	Sales_Rep_No	Amount
2019	02-22-02	1003	350	1936.69
2009	01/15/02	1008	350	926.89
2015	02-10-02	1004	210	1818.19
2024	02-22-02	1004	210	1226.09
2006	01/14/02	1008	187	1216.69
2028	03-04-02	1006	109	1648.49
2016	02-16-02	1006	109	678.18
2012	02/02/02	1001	108	816.09
2025	03-01-02	1009	108	538.89

A.Exhibit Option A
B.Exhibit Option B
C.Exhibit Option C
D.Exhibit Option D
Correct:B

15.Consider the following stored procedure: CREATE PROCEDURE showFees AS SELECT Fee FROM ACTIVITY WHERE Fee > 0 Which Java code segment will correctly utilize this stored procedure?

A.CallableStatement cs = conn.prepareCall({call showFees}); ResultSet rs = cs.executeQuery();
B.CallableStatement cs = conn.prepareCall({call showFees}); ResultSet rs = cs.execute();
C.PreparedStatement ps = conn.prepareStatement(SELECT Fee + FROM ACTIVITY + WHERE Fee > 0); ResultSet rs = cs.execute();
D.PreparedStatement ps = conn.prepareStatement(SELECT Fee + FROM ACTIVITY + WHERE Fee > 0); ResultSet rs = cs.execute();
Correct:A

16.Which Statement interface methods are used to execute a SQL select query?

A.executeUpdate and close
B.executeUpdate and execute
C.executeQuery and execute
D.executeUpdate and executeQuery
Correct:C

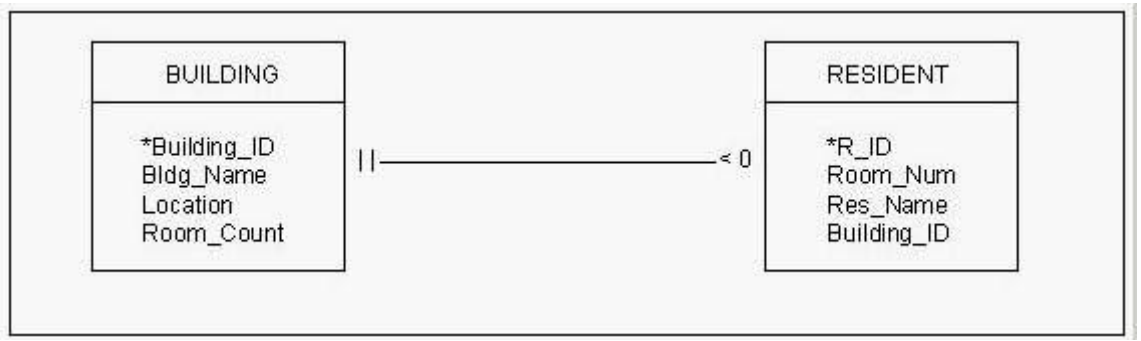
17.What is the purpose of the batch update feature in JDBC 2.0?

A.To reduce processing time
B.To enable transaction processing
C.To provide enhanced security
D.To generate result sets
Correct:A

18.With regard to databases, what is normalization?

A.The process of reducing the cardinality of a relation
B.The process of organizing and refining relations
C.The process of duplicating data to reduce the number of tables
D.The process of limiting data stored in a table to a specific range of values
Correct:B

19.Consider the Information Engineering diagram in the exhibit showing the relations BUILDING and RESIDENT. What is the relationship between BUILDING and RESIDENT?



A.1:1
B.1:N
C.N:1
D.M:N

Correct:B

20.Consider the relations shown in the exhibit. Due to restructuring, the Sales department has been eliminated and the employees working in that department have been dismissed. All ID information is stored as integers. Which SQL statement would be used to return a relation with all information for the employees who have been dismissed?

ID	Last_Name	First_Name	Birth_Date	Dept_ID
0001	Vargas	Jose	09-15-70	032
0002	Jones	Elisa	12-12-55	042
0003	Chu	Helen	04-14-75	032
0004	Day	Danny	06-12-65	022

Employee Relation

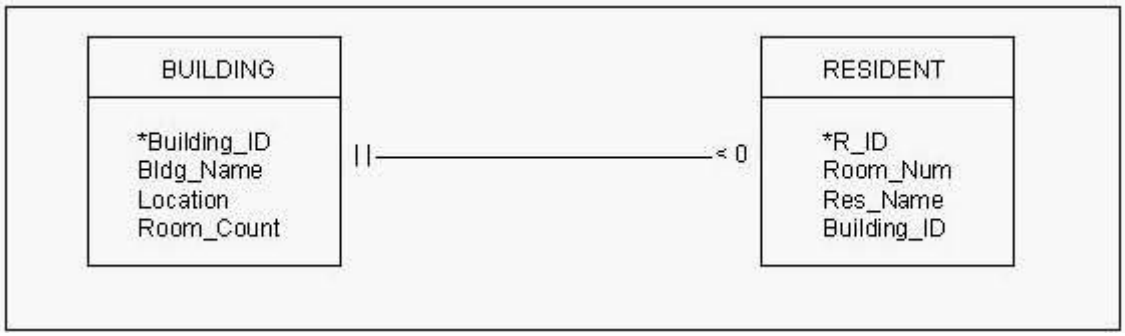
Dept_ID	Dept_Name	Dept_Mngr	Dept_Ext
022	Sales	Reyes, Nancy	5432
032	Accounting	Yee, Cindy	1223
042	Finance	Ames, Joe	4675

Department Relation

A.SELECT * FROM Employee;
B.SELECT ID, Last_Name FROM Employee; WHERE ID = 0004;
C.SELECT * FROM Employee; WHERE Dept_ID = 022;
D.SELECT * FROM Employee WHERE Dept_ID = 022;

Correct:C

21.Consider the Information Engineering diagram shown in the exhibit. Building_ID, R_ID, Room_Count and Room_Num are integer numbers, whereas Bldg_Name and Res_Name are represented by variable-length strings with a maximum of 20 characters. Location can be up to 50 characters long, and no building has more than 600 rooms. Which SQL statement best implements the BUILDING relation shown in this diagram?



A.CREATE TABLE BUILDING (Building_ID NOT NULL PRIMARY KEY, Bldg_Name, Location, Room_Count);

B.CREATE TABLE BUILDING (Building_ID NOT NULL PRIMARY KEY, Bldg_Name, Location, Room_Count, FOREIGN KEY Building_ID REFERENCES BUILDING (Building_ID));
C.CREATE DOMAIN ID AS INTEGER; CREATE DOMAIN COUNT AS INTEGER CHECK (COUNT <= 600 And COUNT > -1); CREATE DOMAIN NAME AS VARCHAR (50); CREATE TABLE BUILDING (Building_ID ID NOT NULL PRIMARY KEY, Bldg_Name NAME, Location NAME, Room_Count COUNT, FOREIGN KEY Building_ID REFERENCES BUILDING (Building_ID));
D.CREATE TABLE BUILDING (Building_ID INTEGER NOT NULL PRIMARY KEY, Bldg_Name VARCHAR (20), Location VARCHAR (50), Room_Count INTEGER CHECK (Room_Count > -1 And Room_Count < 601));

Correct:D

22.Consider a driver class named COM.greatDBco.JDBCDriver. Which of the following is the best method for loading the driver?

A.Explicitly instantiate the driver from within a program as follows: new COM.greatDBco.JDBCDriver();
B.Instantiate the driver from the command line using the D option as follows: java Djdbc.drivers=COM.greatDBco.JDBCDriver MyJDBCProgram
C.Dynamically load the driver using the Class class as follows: Class.forName(COM.greatDBco.JDBCDriver);
D.Dynamically load the driver using the DriverManager class as follows: DriverManager.load(COM.greatDBco.JDBCDriver);

Correct:C

23.Which relational algebraic operation is used to select specific columns (attributes) from a relation?

A.Union
B.Difference
C.Projection
D.Intersection

Correct:C

24.Which statement best describes a candidate key?

A.It is the primary key for an entity.
B.It uniquely identifies every instance of an entity.
C.One or more keys are joined together to form a composite key.
D.One or more keys may be used to form a primary key.

Correct:D

25.Which of the following code fragments performs the actions required to connect to the database at URL jdbc:myDriver:myDatabase using the MyDriver driver?

A.Class.forName(MyDriver); DriverManager.getConnection (jdbc:myDriver:myDatabase);
B.DriverManager.getConnection (jdbc:myDriver:myDatabase); Class.forName(MyDriver);
C.DriverManager.getConnection(MyDriver); Class.forName (jdbc:myDriver:myDatabase);
D.Class.forName(jdbc:myDriver:myDatabase); DriverManager.getConnection (MyDriver);

Correct:A

26.Consider the following code fragment: 1. Statement s = conn.createStatement(); 2. 3. s.executeUpdate(CREATE TABLE MyTable (+ 4. ColumnA CHAR(5), + 5. ColumnB CHAR(5))); 6. 7. s.executeUpdate(INSERT INTO MyTable VALUES (+ 8. '00001', 'AAAAA'); 9.

s.executeUpdate(INSERT INTO MyTable VALUES (+ 10. '00002', 'AAAAA'); 11. 12. ResultSet rs = s.executeQuery(SELECT * FROM MyTable + 13. WHERE ColumnB = 'AAAAA'); 14. while(rs.next()) 15. System.out.println(rs.getString(2)); Assume that variable conn references a valid and open Connection object, and that the database does not already contain a table named MyTable. Which output is generated?

A.00001 AAAAA

B.AAAAA

C.1 2

D.A SQLException is thrown at line 15 and no output is generated.

Correct:B

27.Which of the following best describes the information contained in the data dictionary (or system catalog)?

A.Metadata

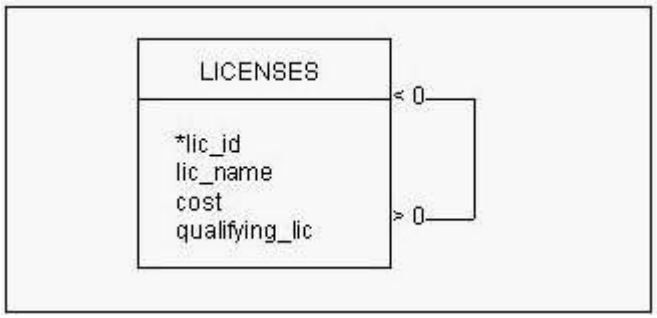
B.File access tables

C.A relational database

D.Sequential data objects

Correct:A

28.A government agency provides driving licenses for various types of motor vehicles. A requirement for a particular license may be possession of another type of motor vehicle license. The agency is developing a relational database system. The exhibit shows an Information Engineering diagram for the relation LICENSES. After the resolution of any anomalies, what would be the correct DBDL description for the logical data model?



A.LICENSES(lic_id,lic_name, cost, qualifying_lic) Primary Key lic_id QUALIFICATIONS(qualification_num, qualifying_lic) Primary Key qualification_num Foreign Key qualification_num references Licenses(lic_id)

B.LICENSES(lic_id,lic_name, cost, qualifying_lic) Primary Key lic_id Foreign Key qualifying_lic

C.LICENSES(lic_id,lic_name, cost, qualifying_lic) Primary Key lic_id QUALIFICATIONS(qualification_num,lic_id,qualifying_lic) Primary Key qualification_num

D.LICENSES(lic_id,lic_name, cost, qualifying_lic) Primary Key lic_id QUALIFICATIONS(qualification_num, lic_id, qualifying_lic) Primary Key qualification_num Foreign Key qualifying_lic references Licenses(qualifying_lic)

Correct:D

29.What of the following is a characteristic of the three-tier database architecture?

A.A Web browser is used as the application server.

B.The application logic is centralized on a dedicated server.

C.A thick client is used to perform business application logic functions locally.
D.Database application logic and database functionality are integrated and reside on a common server.
Correct:B

30.Consider the following relation definitions: domain s_id: integer domain grd: fixed length character string length 1 STUDENT_GRADE(Student_Number: s_id Grade: grd) Primary Key Student_Number Which integrity constraint is violated in this relation definition?

A.Entity integrity
B.Domain constraint
C.Referential integrity
D.Enterprise constraint
Correct:A

