



DB2 Certification



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Who said this?



"Back where I come from we have universities - seats of great learning - where men go to become great thinkers. And when they come out, they think deep thoughts, and with no more brains than you have.

But - they have one thing you haven't got - ... "

... a ~~diploma~~ *DB2 Certification*



IBM Marketshare Surpasses Oracle

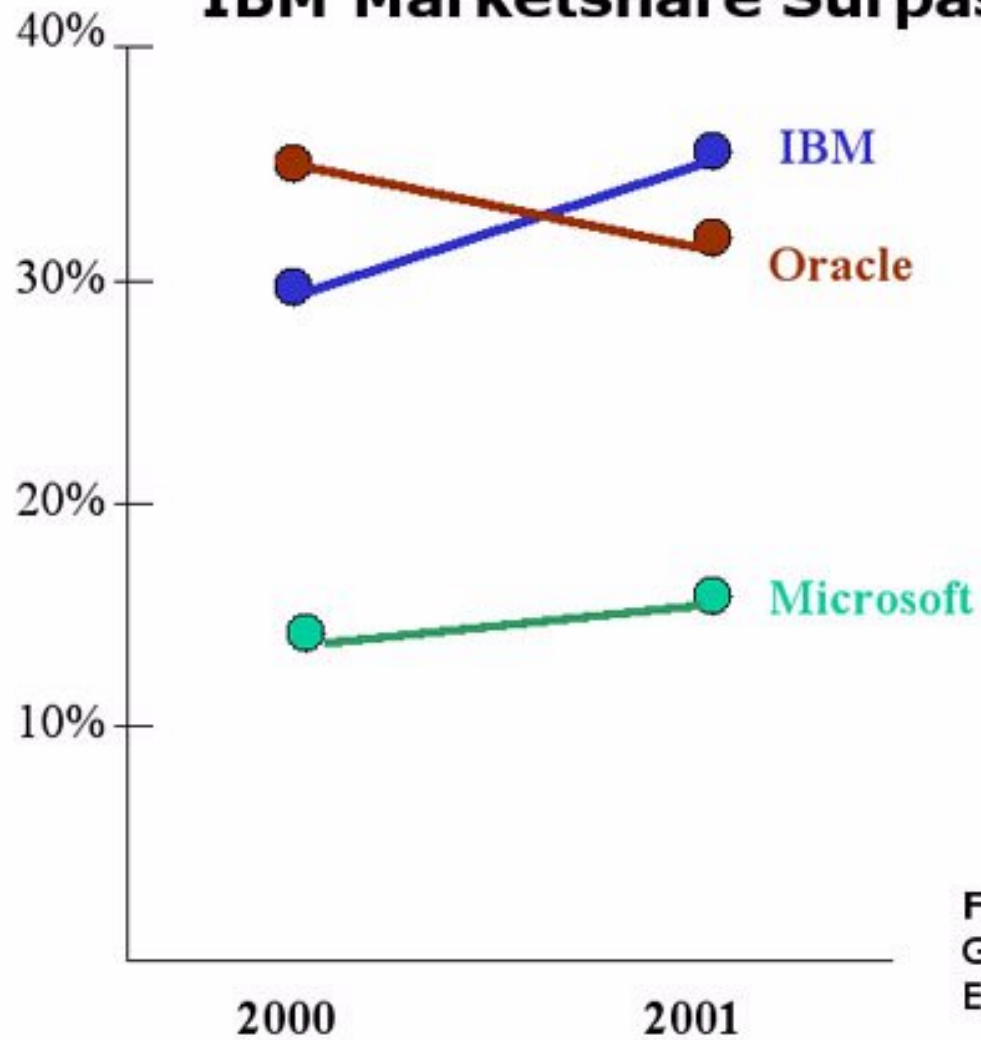
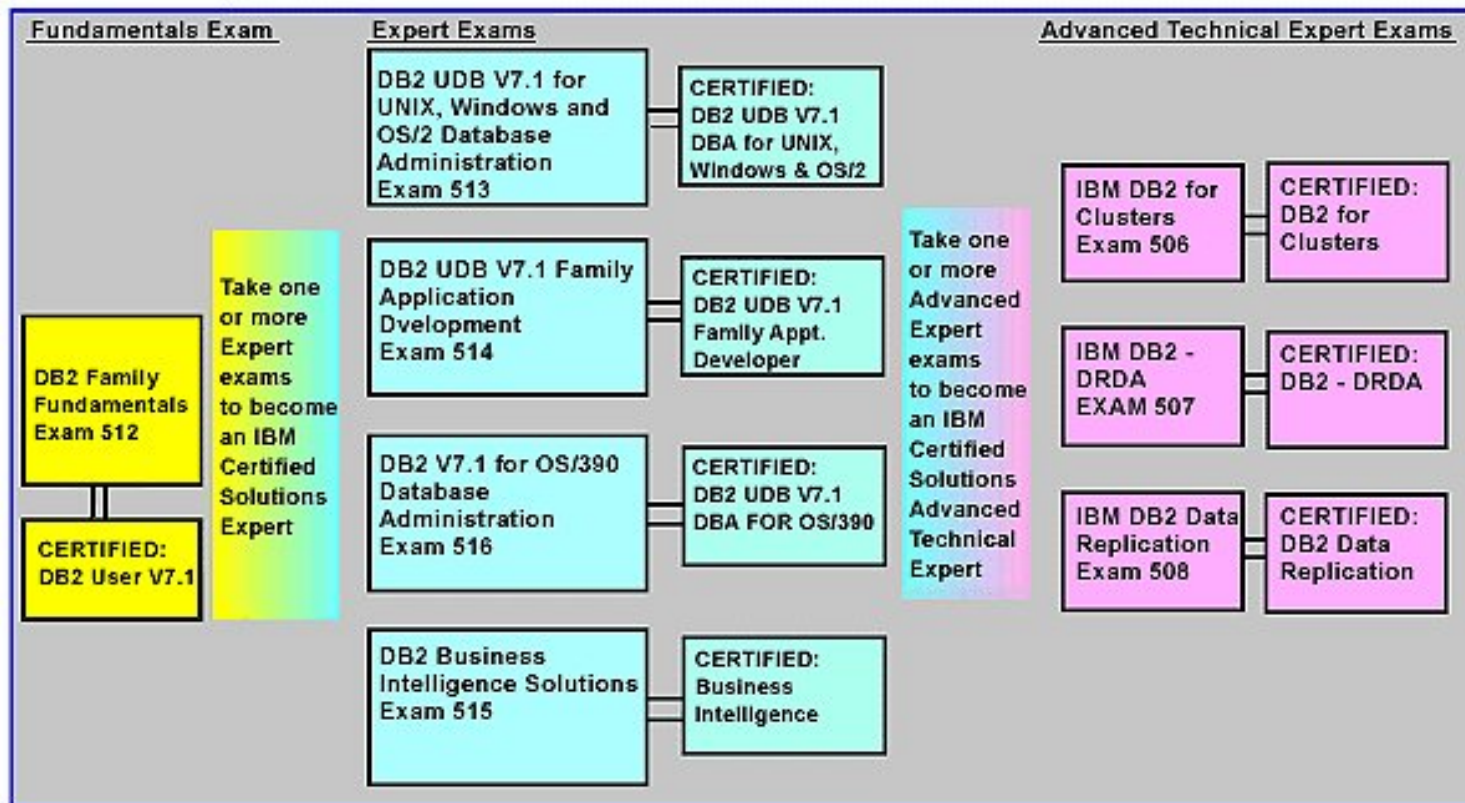


Figure 1 Source:
Gartner Dataquest,
EWEEK 05/13/02 p. 18

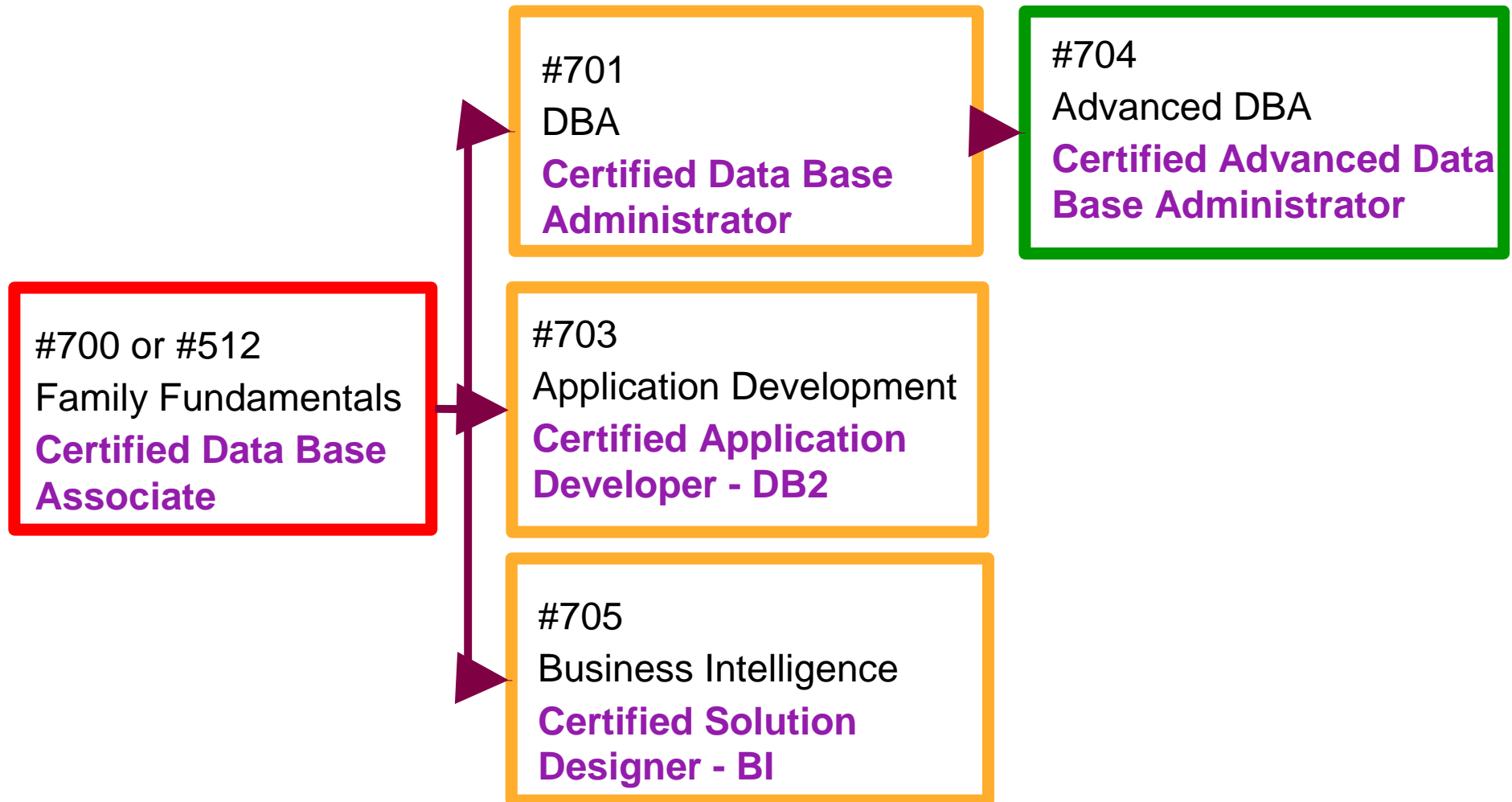
DB2 V7



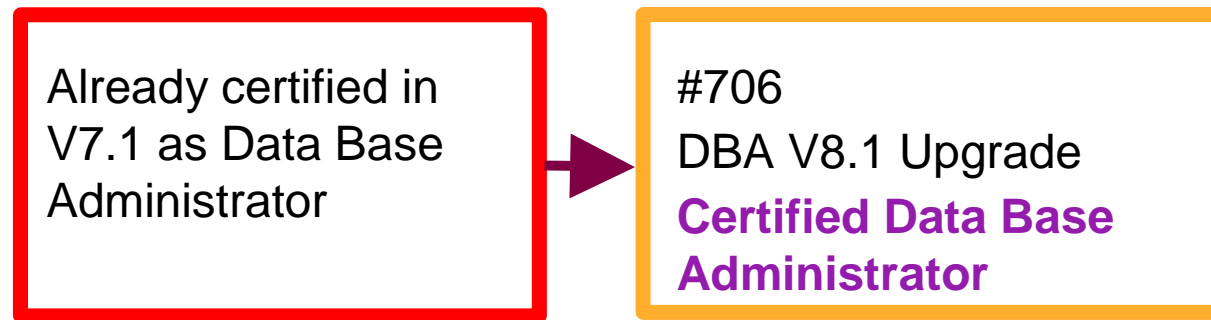
IBM Data Management Certification Roadmap



DB2 UDB V8 for Linux, UNIX and Windows Certifications



DB2 UDB V8 for Linux, UNIX and Windows Certification Upgrade



If already certified in V7.1 upgrade your certification to V8.1 with 1 exam (#706). The exam has only 30 questions and is 1/2 price (\$60).

IBM's Free Offer



- ✍ Register at the IBM certification site
- ✍ For exams 516, 701, 703, 704 or 705
- ✍ Take an on-line test and score 75% or higher
- ✍ Request IBM email you a voucher number
- ✍ Use that voucher to book the actual exam
- ✍ One voucher per person
- ✍ Take exam before Aug 31, 2003

DB2 free offer url

<http://www-3.ibm.com/software/data/db2/skills/voucher.html>

The available exams



- ✍ **Exam 516** - DB2 UDB V7.1 Database Administration for OS/390
- ✍ **Exam 701** - DB2 UDB V8.1 Database Administration on Unix, Windows and OS/2
- ✍ **Exam 703** - DB2 UDB V8.1 Family Application Development
- ✍ **Exam 704** - DB2 UDB V8.1 Advanced Database Administration
- ✍ **Exam 705** - DB2 UDB V8.1 Business Intelligence

Exam Objectives



DB2 UDB V7.1 Family Fundamentals

Test 512 Objectives



There are a total of 55 questions. To pass this exam you must score 55% or greater. You will have 75 minutes to take this test.

- ✍ Section 1 - Installation & Planning
- ✍ Section 2 - Security and Instances
- ✍ Section 3 - Creating and Accessing DB2 Databases
- ✍ Section 4 - SQL Usage
- ✍ Section 5 - Database Objects
- ✍ Section 6 - Database Concurrency

DB2 UDB V7.1 for OS/390 Database Administration



Test 516 Objectives

There are a total of 59 questions. To pass this exam you must score 63% or greater. You will have 75 minutes to take this test.

- ✍ Section 1 Create and Manage DB2 Objects
- ✍ Section 2 - Data Recovery
- ✍ Section 3 - Performance and Tuning
- ✍ Section 4 - Planning
- ✍ Section 5 - Utilities
- ✍ Section 6 - Security

DB2 UDB V8.1 Family Fundamentals

Test 700 Objectives



- ✍ Planning 15%
- ✍ Security 9%
- ✍ Accessing DB2 UDB Data 15%
- ✍ Working with DB2 UDB Data 31%
- ✍ Working with DB2 UDB Objects 19%
- ✍ Data Concurrency 11%

DB2 UDB V8.1 for Linux, UNIX, and Windows Database Administration



Test 701 Objectives

- ✍ Data Placement 17%
- ✍ Database Access 17%
- ✍ Monitoring DB2 Activity 16%
- ✍ DB2 Utilities 17%
- ✍ Backup and Recovery 14%

DB2 UDB V8.1 Family Application Development

Test 703 Objectives



- ✍ Database objects and Programming Methods 13%
- ✍ Embedded SQL Programming 11%
- ✍ ODBC/CLI Programming 13%
- ✍ Java Programming 13%
- ✍ Advanced Programming 16%
- ✍ User Defined Routines 8%

DB2 UDB V8.1 for Linux, UNIX and Windows Advanced Database Administration



Test 704 Objectives

- ✍ Advanced Administration 32%
- ✍ High Availability 19%
- ✍ Performance and Scalability 37%
- ✍ Networking & Security 12%

Business Intelligence Solutions V8.1

Test 705 Objectives



- ✍ Section 1 Business Intelligence Terminology, Functions and Differentiators 27%
- ✍ Section 2 Gather Customer BI Requirements 24%
- ✍ Section 3 Business Intelligence Data Sourcing/Movement 25%
- ✍ Section 4 Business Intelligence Solution Architecture 24%

Exam Taking Tips



- ✍ All questions are multiple choice, so answer every one (there is no penalty for wrong answers, so at least guess at every question).
- ✍ The exam software allows you to "mark" questions to return to later, so you can skip hard questions and return to them later.
- ✍ The time allowed for the exams is generous.
- ✍ When you're done with the exam, click the Done button and the software instantly shows you whether you passed.
- ✍ The exams are intended to test your DB2 knowledge and ability to figure out DB2 problems (not just your ability to memorize what's in the Certification Guides).

More Exam Taking Tips



- ✍ Don't try to predict the answer pattern.
- ✍ Eliminate obviously incorrect answers.
- ✍ Many long answers will be very similar - pick out the differences.
- ✍ In SQL there is a difference between name = null and name = 'null'.
- ✍ Read the question.

Sample Questions



Which of the following DB2 components allows reference to Oracle and DB2 databases in a single query?

- A. DB2 Query Patroller
- B. DB2 Warehouse Manager
- C. DB2 Relational Connect**
- D. DB2 Connect Enterprise Edition

The purpose of the USE privilege is to:

- A. query data in a table
- B. load data into a table
- C. create tables within a table space**
- D. create table spaces within a database

Which of the following database authorities is required to create packages in a database?

A. BINDADD

B. CREATETAB

C. CREATEPKG

D. PACKAGEADD

Which two of the following authorities can create a database?

A. DBADM

B. SYSADM

C. DBCTRL

D. SYSCTRL

E. SYSMANT

Given the two table definitions:

ORG

deptnumb INTEGER
deptname CHAR(30)
manager INTEGER
division CHAR(30)
location CHAR(30}

STAFF

id INTEGER
name CHAR(30)
dept INTEGER
job CHAR(20)
years INTEGER
salaryDECIMAL(10, 2)
comm DECIMAL (10,2)

Which of the following statements will display each department, alphabetically by name, and the name of the manager of the department?

- A. SELECT a.deptname, b.name FROM org a, staff b WHERE a.manager=b.id
- B. SELECT a.deptname, b.name FROM org a, staff b WHERE b .manager=a .id
- C. SELECT a.deptname, b.name FROM org a, staff b WHERE a.manager=b.id
GROUP BY a.deptname, b.name
- D. SELECT a.deptname, b.name FROM org a, staff b, WHERE b.manager=a.id
GROUP BY a.deptname, b.name

```
CREATE DISTINCT TYPE kph AS INTEGER WITH  
COMPARISONS
```

```
CREATE DISTINCT TYPE mph AS INTEGER WITH  
COMPARISONS
```

```
CREATE TABLE speed_limits  
  (route_num  SMALLINT,  
   canada_sl KPH NOT NULL,  
   us_sl  MPH NOT NULL)
```

Which of the following is a valid query?

A. `SELECT route_num FROM speed_limits WHERE canada_sl > 80`

B. `SELECT route_num FROM speed_limits WHERE canada_sl > kph`

C. `SELECT route_num FROM speed_limits WHERE canada_sl > us_sl`

D. `SELECT route_num FROM speed_limits WHERE canada_sl > kph(80)`

Given the table:

STAFF

ID LASTNAME

1 Jones

2 Smith

3 <null>

Which of the following statements removes all rows from the table where there is a NULL value for LASTNAME?

- A. **DELETE FROM staff WHERE lastname IS NULL**
- B. DELETE FROM staff WHERE lastname = 'NULL'
- C. DELETE ALL FROM staff WHERE lastname IS NULL
- D. DELETE ALL FROM staff WHERE lastname = 'NULL'

```
INSERT INTO staff VALUES (1, 'Colbert',  
'Dorchester', 1)
```

```
COMMIT
```

```
INSERT INTO staff VALUES (6, 'Anders', 'Cary', 6)
```

```
INSERT INTO staff VALUES (3, 'Gaylord', 'Geneva',  
8)
```

```
ROLLBACK WORK
```

Which of the following indicates the number of new rows that would be in the STAFF table?

A. 0

B. 1

C. 2

D. 3

Given, CREATE TABLE t1 (c1 CHAR (4) NOT NULL). Which of the following can be inserted into this table?

- A. 4
- B. NULL
- C. "abc"
- D. "abcde"

Which of the following products can be used to store image data in a DB2 database?

- A. Net.Data
- B. NetSearch
- C. DB2 AVI Extenders
- D. DB2 XML Extenders
- E. DB2 Text Extenders

For which of the following database objects can locks NOT be obtained?

A. A row

B. A table

C. A column

D. An index key

An update lock gets released by an application using the repeatable read isolation level during which of the following?

- A. If the cursor accessing the row is closed
- B. If the transaction issues a ROLLBACK statement**
- C. If the cursor accessing the row is moved to the next row
- D. If the transaction changes are made via an UPDATE statement

Which of the following isolation levels is most likely to acquire a table level lock during an index scan?

- A. Read Stability
- B. Repeatable Read**
- C. Cursor Stability
- D. Uncommitted Read

Which of the following releases a lock by an application using the cursor stability isolation level?

A. if the cursor accessing the row is moved to the next row

B. if the cursor accessing the row is used to update the row

C. if the application's current row is deleted by the application

D. if the application's current row needs to be updated by another application

Given the requirement of providing a read-only database, applications accessing the database should be run with which of the following isolation levels to allow for the most read concurrency?

- A. Read stability
- B. Repeatable read
- C. Cursor stability
- D. Uncommitted read

Given the table definitions:

```
CREATE TABLE id.pc
(serial_num INT NOT NULL PRIMARY KEY,
 model_num INT NOT NULL,
 owner_id INT,
 FOREIGN KEY (owner_id)
 REFERENCES id.employees ON DELETE SET NULL)
CREATE TABLE id.employees
(emp1oyee_num INT NOT NULL PRIMARY KEY,
 emp1oyee_name CHAR(20))
```

and the statement:

```
DELETE FROM id.employees WHERE employee_num = 12345
```

Which of the following occurs to data in the id.pc table?

- A. All rows where owner_id was 12345 are deleted.
- B. All rows where owner_id was 12345, owner_id is not null.
- C. All rows where owner_id was 12345, the owner_id is null.
- D. All rows where owner_id was 12345 are placed in an exception table.

Which of the following will occur when a view is created on a DB2 table?

- A. Memory usage is reduced.
- B. Data access time is increased.
- C. Data access control is increased.
- D. Query compilation time is reduced.

Which of the following enables archival logging?

- A. Allocating the database primary logs
- B. Setting the LOGPATH database parameter
- C. Setting the LOGSECOND database parameter
- D. Setting the LOGRETAIN database parameter

Which of the following will capture static SQL explain snapshots for an application?

A. The EXPLAIN YES bind option

B. The EXPLSNAP YES bind option

C. The SET CURRENT EXPLAIN SNAPSHOT YES statement

D. The SET CURRENT EXPLAIN SNAPSHOT EXPLAIN statement

Snapshot monitoring accumulates the number of times a deadlock is detected. Which of the following commands will initialize the deadlocks detected value to zero?

- A. **RESET MONITOR ALL**
- B. UPDATE MONITOR FOR ALL
- C. INITIALIZE MONITOR ALL
- D. RESET MONITOR USING LOCK OFF
- E. UPDATE MONITOR USING LOCK OFF
- F. INITIALIZE MONITOR USING LOCK OFF

Which of the following DB2 UDB utilities provides the fastest method of adding large amounts of data to a table?

- A. LOAD
- B. APPEND
- C. IMPORT
- D. UPLOAD
- E. FASTLOAD

Having just completed a reorganization of a DB2 table, which two of the following steps should be completed to improve query performance?

- A. Run statistics on the table
- B. Update the database configuration
- C. Reorganize each index on the table
- D. Drop and recreate each index on the table
- E. Rebind any packages that access the table

Some resources

DB2 skills page - info about DB2 training & certification, new V8 tutorials
<http://www-3.ibm.com/software/data/education.html>

Certification guide books

<http://www-3.ibm.com/software/data/pubs/certbooks.html>

Certification Magazine

<http://www.certmag.com>

