**Creating Views and Indexes**

* 1. What will happen if a unique index is created on a nonunique field?
  2. Are the following statements true or false?
  3. Both views and indexes take up space in the database and therefore must be factored in the planning of the database size.
     + **False**
  4. If someone updates a table on which a view has been created, the view must have an identical update performed on it to see the same data.
     + **False**
  5. If you have the disk space and you really want to get your queries smoking, the more indexes the better.
     + **False**

Is the following CREATE statement correct?

create view credit\_debts as (select all from debts where account\_id = 4);

**-No, take out all and put \* instead. No need for parenthesis.**

1. Is the following CREATE statement correct?

create unique view debts as select \* from debts\_tbl;

**-No, no such thing as “unique view”**

1. Is the following CREATE statement correct?

drop \* from view debts;

**-No, remove the “from”**

1. Is the following CREATE statement correct?

create index id\_index on bills (account\_id);

**-Yes**

**Controlling Transactions**

1. When nesting transactions, does issuing a ROLLBACK TRANSACTION command cancel the current transaction and roll back the batch of statements into the upper-level transaction? Why or why not?

**-No. Issuing a “rollback transaction” in nesting transactions just cancels the transactions currently in progress.**

1. Can savepoints be used to "save off" portions of a transaction? Why or why not?

**-Yes, savepoints can be used to “save off”. It allows the user to save off statements within a transaction.**

1. Can a COMMIT command be used by itself or must it be embedded?

**-It can be used by itself**

1. If you issue the COMMIT command and then discover a mistake, can you still use the ROLLBACK command?

**-You can issue the ROLLBACK command, but it wont roll back the changes.**

1. Will using a savepoint in the middle of a transaction save all that happened before it automatically?

**-No**

**Database Security**

1. What is wrong with the following statement?

GRANT CONNECTION TO DAVID;

**-No connection role. Should be “connect” instead.**

1. True or False (and why): Dropping a user will cause all objects owned by that user to be dropped as well.

**-True. If you implement the “CASCADE” statement, it will tell the system to drop all objects owned by the user and that user as well.**

1. What would happen if you created a table and granted select privileges on the table to public?

**-Everyone can view and select from your table**

1. Is the following SQL statement correct?

create user RON identified by RON;

**-Yes**

1. Is the following SQL statement correct?

alter RON identified by RON;

**-No, you need to add “user” before RON**

1. If you own a table, who can select from that table?

**-Who ever you make it available to**

**Streamlining SQL Statements for Improved Performance**

1. What does streamline an SQL statement mean?

**-Taking the path with least resistance and arranging the elements within your clauses properly.**

1. Should tables and their corresponding indexes reside on the same disk?

**-No, the user should store tables and indexes seperatly**

1. Why is the arrangement of conditions in an SQL statement important?

**-It’s more efficient**

1. What happens during a full-table scan?

**-The table is read row by row**

1. How can you avoid a full-table scan?

**-Create an index for the table**

1. What are some common hindrances of general performance?

**-No sizing of tables and indexes, low memory, wrong usage of disk drives, no commits/rollbacks**

1. Make the following SQL statement more readable.

SELECT EMPLOYEE.LAST\_NAME, EMPLOYEE.FIRST\_NAME, EMPLOYEE.MIDDLE\_NAME, EMPLOYEE.ADDRESS, EMPLOYEE.PHONE\_NUMBER, PAYROLL.SALARY, PAYROLL.POSITION, EMPLOYEE.SSN, PAYROLL.START\_DATE FROM EMPLOYEE, PAYROLL WHERE EMPLOYEE.SSN = PAYROLL.SSN AND EMPLOYEE.LAST\_NAME LIKE 'S%' AND PAYROLL.SALARY > 20000;

**SELECT E.LAST\_NAME, E.FIRST\_NAME, E.MIDDLE\_NAME,**

**E.ADDRESS, E.PHONE\_NUMBER, P.SALARY,**

**P.POSITION, E.SSN, P.START\_DATE**

**FROM EMPLOYEE E**

**PAYROLL P**

**WHERE E.SSN = P.SSN**

**AND E.LAST\_NAME LIKE ‘S%’**

**AND P.SALARY > 20000;**

**AND M.CITY = ‘INDIANAPOLIS’**

**AND M.NAME LIKE ‘SMITH%’;**

1. Rearrange the conditions in the following query to optimize data retrieval time.Use the following statistics (on the tables in their entirety) to determine the order of the conditions:

593 individuals have the last name SMITH.

712 individuals live in INDIANAPOLIS.

3,492 individuals are MALE.

1,233 individuals earn a salary >= 30,000.

5,009 individuals are single.

Individualid is the primary key for both tables.

SELECT M.INDIVIDUAL\_NAME, M.ADDRESS, M.CITY, M.STATE, M.ZIP\_CODE, S.SEX, S.MARITAL\_STATUS, S.SALARY FROM MAILING\_TBL M, INDIVIDUAL\_STAT\_TBL S WHERE M.NAME LIKE 'SMITH%' AND M.CITY = 'INDIANAPOLIS' AND S.SEX = 'MALE' AND S.SALARY >= 30000 AND S.MARITAL\_STATUS = 'S' AND M.INDIVIDUAL\_ID = S.INDIVIDUAL\_ID;

**SELECT M.INDIVIDUAL\_NAME, M.ADDRESS, M.CITY, M.ZIP\_CODE,**

**S.SEX, S.MARTIAL\_STATUS, S.SALARY**

**FROM MAILING\_TBL M, INDIVIDUAL\_STAT\_TBL S**

**WHERE M.INDIVIDUALS\_ID = S.INDIVIDUAL\_ID**

**AND S.MARITAL\_STATUS = ‘S’**

**AND S.SEX = ‘MALE’**

**AND S.SALARY >= 30000**

**Using Views to Retrieve Useful Information from the Data Dictionary**

1. What types of information are stored in the data dictionary?

**-Design of the database, stats, objects, sql code and security**

1. How can you use performance statistics?

**-Use it by improving database performance**

1. What are some database objects?

**-tables, views, clusters**