# Lab Exercises for February 7, 2014



# Preparation for Midterm

**TASK 1**

**TRANSACTIONS AND AUTOCOMMIT**

SQLDeveloper uses preferences to set the default for the AUTOCOMMIT parameter. When it is set to ON, each DML statement will be automatically committed. You can view/change the setting by going to Tools | Preferences | Database | Advanced and see if the checkbox for auAutocommit is checked. If is checked it means that the AUTOCOMMIT is on.

**Check** the setup for the SQLDeveloper. It should be off (checkbox empty)

**DO** the following exercise for AUTOCOMMIT/ROLLBACK/COMMIT

CREATE TABLE test

(col1 INTEGER, col2 VARCHAR2(10) )

**ROLLBACK;**

SELECT Table\_Name FROM User\_Tables; -- do you see the table? Why?

SELECT \* FROM Test; -- what is in the table? Why?

INSERT INTO Test VALUES (1, 'ABC' );

INSERT INTO Test VALUES (2, 'HJKKKKK' );

SELECT \* FROM Test; -- what do you see? Why?

INSERT INTO Test VALUES (1, 'ABC' );

INSERT INTO Test VALUES (2, 'HJKKKKK' );

**ROLLBACK;**

SELECT \* FROM Test; -- what do you see? Why?

INSERT INTO Test VALUES (1, 'ABC' );

INSERT INTO Test VALUES (2, 'HJKKKKK' );

SELECT \* FROM Test; -- what do you see? Why?

**COMMIT;**

SELECT \* FROM Test; -- what do you see? Why?

**ROLLBACK;**

SELECT \* FROM Test; -- what do you see? Why?

**TASK 2**

Use the tables for the **JustLee Books** database Oracle 11g SQL book) . Make sure that you have created them on the server.

**CUSTOMERS**

**ORDERS**

**ORDERITEMS**

**BOOKS**

**BOOKAUTHOR**

**AUTHOR**

**PUBLISHER**

**PROMOTION**

Please use the JustLee database to write the following queries. Run your queries and check the results.

Run the following two queries

SELECT COUNT(DISTINCT CATEGORY))

FROM BOOKS;

SELECT DISTINCT COUNT(CATEGORY)

FROM BOOKS:

**Are the results the same? Why?**

Run the following two queries

SELECT COUNT(\*)

FROM ORDERS

WHERE SHIPDATE IS NULL

SELECT COUNT(SHIPDATE )

FROM ORDERS

WHERE SHIPDATE IS NULL

**Are the results the same? Why?**

**TASK 3**

1. GROUP BY HAVING

Display book categories with an average profit more than $15.00. Profit is calculated as : retail- cost

1. COUNT GROUP BY HAVING

Display book categories with more than 1 book published after 2000.

1. COUNT GROUP BY HAVING

Display customer numbers for the customers, who have ordered more than 1 book.

**TASK 4**

**CREATE STATEMENT AND CONSTRAINTS**



1. Using the above specification create PATIENT table in ORACLE 11g. Specify the following constraints: PATIENT\_ID is a primary key, patient first and last name is mandatory (NULLS are not allowed). Gender can be NULL or F or M.
2. Please note that the PATIENT\_ID column has a CHAR(10) data type. Create a sequence PATIENT\_ID\_SQ starting from 1 (specify NOCACHE). Print the CREATE statement for the table and the sequence.
3. Write an insert statement to add yourself as a patient. Use the sequence PATIENT\_ID\_SQ number for the new PATIENT\_ID. PATIENT\_ID is stored as 10 characters. First character is “P” and the next 9 characters represent a numeric value (from the sequence), which is left padded by “0” (zeros). For example, first PATIENT ID is “P000000001.” HINT: LPAD functions pads the left-side of a string with a specific characters for a specific length.

**EXAMPLE:**

SELECT lpad ('mila', 10, '\*') “padded name” FROM dual; will result in

PADDED NAME

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\*\*\*\*\*\*mila