

SSN COLLEGE OF ENGINEERING

Department of Computer Science & Engineering

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CS8481 – DBMS Lab Assignment – 2

Title: DML Fundamentals

Assigned: 29-Dec-19

Manipulating Nobel Laureate Information Using DML

<u>Aim:</u> To learn the following:

- a) Update operations such as INSERT, UPDATE, DELETE
- b) Controlling the transactions using COMMIT, SAVEPOINT, ROLLBACK
- c) SELECT Clause
 - i) Using arithmetic operators, logical operators
 - ii) Using LIKE, BETWEEN, IN keywords
 - iii) Using Character, Date, Number and Aggregate functions
 - iv) Using GROUP BY, HAVING, ORDER BY

Schema to be used for the following queries:

nobel (<u>noble_id</u>, name, gender, category, field, year_award, aff_role, dob, country) where aff_role describes the nobel laureates' affiliation towards an institute/organization or his/her role in that field for the award.

Populate the *nobel* relation as given in the script file (*nobel.sql*)

Write DML queries for the following:

- 1. Display the nobel laureate(s) who born after 1-Jul-1960.
- 2. Display the Indian laureate (name, category, field, country, year awarded) who was awarded in the Chemistry category.
- 3. Display the laureates (name, category, field and year of award) who was awarded between 2000 and 2005 for the Physics or Chemistry category.
- 4. Display the laureates name with their age at the time of award for the Peace category.
- 5. Display the laureates (name,category,aff_role,country) whose name starts with *A* or ends with *a*, but not from Isreal.
- 6. Display the name, gender, affiliation, dob and country of laureates who was born in 1950's. Label the dob column as *Born 1950*.
- 7. Display the laureates (name,gender,category,aff_role,country) whose name starts with A, D or H. Remove the laureate if he/she do not have any affiliation. Sort the results in ascending order of name.
- 8. Display the university name(s) that has to its credit by having at least 2 nobel laureate with them.
- 9. List the date of birth of youngest and eldest laureates by country-wise. Label the column as Younger, Elder respectively. Include only the country having more than one laureate. Sort the output in alphabetical order of country.
- 10. Show the details (year award,category,field) where the award is shared among the laureates in the same category and field. Exclude the laureates from USA.

Use TCL Statements

- 11. Mark an intermediate point in the transaction (savepoint).
- 12.Insert a new tuple into the nobel relation.
- 13. Update the aff role of literature laureates as 'Linguists'.
- 14.Delete the laureate(s) who was awarded in Enzymes field.
- 15.Discard the most recent update operations (rollback).
- 16.Commit the changes.

What you have to submit:

- 1. Schema Diagram with constraints
- 2. Demo script file

