REM \*\*\*SSN COLLEGE OF ENGINEERING\*\*\*

REM \*\*\*DEPARTMENT OF COMPUTER SCIENCE ENGINEERING\*\*\*

REM \*\*\*DATABASE MANAGEMENT SYSTEMS LAB\*\*\*

REM \*\*\*Name:DIKSHITHA VANI V\*\*\*

REM \*\*\*Register No.: 205001032\*\*\*

REM \*\*\*Date: 11.03.2022\*\*\*

REM \*\*\*Assignment 2: DML Fundamentals\*\*\*

REM \*\*\*Drop nobel table\*\*\*

drop table nobel;

REM \*\*\*Creating nobel relation\*\*\*

create table nobel(

laureate\_id number(3) constraint laur\_pk PRIMARY KEY,

name varchar2(30) constraint name\_nn NOT NULL,

gender char(1) constraint gen\_ch check (gender in('m','f')),

category char(3) constraint cat\_ch check (category in('Phy','Che','Med','Lit','Pea','Eco','Lit')),

field varchar2(25),

year\_award number(4),

aff\_role varchar2(30),

dob date,

country varchar2(10)

);

REM \*\*\*Populate nobel relation\*\*\*

insert into nobel values(100,'Robert B. Laughlin','m','Phy','Condensed matter',1998,'Stanford University','01-nov-1950','USA');

insert into nobel values(101,'Horst L Stormer','m','Phy','Condensed matter',1998,'Columbia University','06-apr-1949','Germany');

insert into nobel values(102,'Daniel C. Tsui','m','Phy','Condensed matter',1998,'Princeton University','28-feb-1939','China');

insert into nobel values(103,'Walter Kohn','m','Che','Theoretical Chemistry',1998,'University of California','09-mar-1923','Austria');

insert into nobel values(104,'John Pople','m','Che','Theoretical Chemistry',1998,'North Western University','31-oct-1925','UK');

insert into nobel values(106,'John Hume','m','Pea','Negotiation',1998,'Labour party Leader','18-jan-1937','Ireland');

insert into nobel values(107,'David Trimble','m','Pea','Negotiation',1998,'Ulster Unionist party Leader','15-oct-1944','Ireland');

insert into nobel values(108,'Louis J Ignaroo','m','Med','Cardiovascular system',1998,'University of California','31-may-1941','USA');

insert into nobel values(109,'Amartya Sen','m','Eco','Welfare Economics',1998,'Trinity College','03-nov-1933','India');

insert into nobel values(110,'Jose Saramago','m','Lit','Portuguese',1998,null,'16-nov-1922','Portugal');

insert into nobel values(111,'Eric A Cornell','m','Phy','Atomic physics',2001,'University of Colorado','19-dec-1961','USA');

insert into nobel values(112,'Carl E Wieman','m','Phy','Atomic physics',2001,'University of Colorado','26-mar-1951','USA');

insert into nobel values(113,'Ryoji Noyori','m','Che','Organic Chemistry',2001,'Nagoya University','03-sep-1938','Japan');

insert into nobel values(114,'K Barry Sharpless','m','Che','Organic Chemistry',2001,'Scripps Research Institute','28-apr-1941','USA');

insert into nobel values(115,'Kofi Annan','m','Pea','World organizing',2001,'UN General','08-apr-1938','Ghana');

insert into nobel values(116,'Joerge A Akeriof','m','Eco','Economic of Information',2001,'University of California','17-jun-1940','USA');

insert into nobel values(117,'V S Naipaul','m','Lit','English',2001,null,'17-aug-1932','UK');

insert into nobel values(118,'Charles A Kao','m','Phy','Fiber technology',2009,'University of Hongkong','04-nov-1933','China');

insert into nobel values(119,'Willard S Boyle','m','Phy','Semiconductor technology',2009,'Bell Laboratories','19-aug-1924','Canada');

insert into nobel values(120,'George E Smith','m','Phy','Semiconductor technology',2009,'Bell Laboratories','10-may-1930','USA');

insert into nobel values(121,'Venkatraman Ramakrishnan','m','Che','Biochemistry',2009,'MRC Laboratory','19-aug-1952','India');

insert into nobel values(122,'Ada E Yonath','f','Che','Biochemistry',2009,'Weizmann Institute of Science','22-jun-1939','Isreal');

insert into nobel values(123,'Elizabeth H Blackburn','f','Med','Enzymes',2009,'University of California','26-nov-1948','Australia');

insert into nobel values(124,'Carol W Greider','f','Med','Enzymes',2009,'Johns Hopkins University','15-apr-1961','USA');

insert into nobel values(125,'Barack H Obama','m','Pea','World organizing',2009,'President of USA','04-aug-1961','USA');

insert into nobel values(126,'Oliver E Williamson','m','Eco','Economic governance',2009,'University of California','27-sep-1932','USA');

insert into nobel values(127,'Elinor Ostrom','m','Eco','Economic governance',2009,'Indiana University','07-aug-1933','USA');

insert into nobel values(128,'Herta Muller','f','Lit','German',2009,null,'17-aug-1953','Romania');

REM \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*END OF INSERT\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

REM \*\*\*DML COMMANDS\*\*\*

REM \*\*Display the nobel laureate(s) who born after 1­-Jul­-1960 \*\*

select \* from nobel where dob > '1-JUL-1960';

REM \*\*Display the Indian laureate (name, category, field, country, year awarded) who was \*\*

REM \*\*awarded in the Chemistry category. \*\*

select name,category,field,year\_award from nobel where country='India' and category='Che';

REM \*\*Display the laureates (name, category,field and year of award) who was awarded \*\*

REM \*\*between 2000 and 2005 for the Physics or Chemistry category.\*\*

select name,category,field,year\_award from nobel where year\_award between 2000 and 2005 and (category ='Phy' or category='Che');

REM \*\* Display the laureates name with their age at the time of award for the Peace category.\*\*

select name, year\_award-EXTRACT(YEAR FROM dob) as age from nobel where category='Pea';

REM \*\*Display the laureates (name,category,aff\_role,country) whose name starts with A or \*\*

REM \*\*endswith a, but not from Isreal. \*\*

select name,category,aff\_role,country from nobel where (name like 'A%' or name like '%a') and country!='Isreal';

REM \*\* Display the name, gender, affiliation, dob and country of laureates who was born in\*\*

REM \*\* 1950's. Label the dob column as Born 1950. \*\*

select name,gender,aff\_role ,dob as Born\_1950 ,country from nobel where EXTRACT(YEAR FROM dob) between 1950 and 1959;

REM \*\* Display the laureates (name,gender,category,aff\_role,country) whose name starts with\*\*

REM \*\*A, D or H. Remove the laureate if he/she do not have any affiliation. Sort the results in\*\*

REM \*\* ascending order of name. \*\*

select name,gender,category,aff\_role,country from nobel where (name like 'A%' or name like 'D%' or name like 'H%') and aff\_role is not null order by name;

REM \*\*Display the university name(s) that has to its credit by having at least 2 nobel laureate\*\*

REM \*\*with them\*\*

select aff\_role from nobel where aff\_role like 'University%' group by aff\_role having COUNT(aff\_role)>=2;

REM \*\*List the date of birth of youngest and eldest laureates by country­wise. Label the \*\*

REM \*\*column as Younger, Elder respectively. Include only the country having more than one \*\*

REM \*\*laureate. Sort the output in alphabetical order of country \*\*

select country,max(dob) as Younger , min(dob) as Elder from nobel group by country having count(country)>1 order by country ;

REM \*\*Show the details (year award,category,field) where the award is shared among the\*\*

REM \*\*laureates in the same category and field. Exclude the laureates from USA.\*\*

select year\_award,category,field from nobel where country!='USA' group by category,field,year\_award;

REM \*\*TCL COMMANDS \*\*

REM \*\*Mark an intermediate point in the transaction (savepoint).\*\*

savepoint nobel\_save;

REM \*\*Insert a new tuple into the nobel relation \*\*

insert into nobel values(129,'Charles','m','Phy','Fiber technology',2010,'University of made up name ','05-nov-1933','China');

REM \*\* BEFORE UPDATE \*\*

select \* from nobel where category ='Lit';

REM \*\*Update the aff\_role of literature laureates as 'Linguists'. \*\*

update nobel set aff\_role='Linguists' where category='Lit';

REM \*\* After UPDATE \*\*

select \* from nobel where category ='Lit';

REM \*\* BEFORE DELETE \*\*

select \* from nobel where field='Enzymes';

REM \*\*Delete the laureate(s) who was awarded in Enzymes field.\*\*

delete from nobel where field='Enzymes';

REM \*\* AFTER DELETE \*\*

select \* from nobel where field='Enzymes';

rem \*\* state of table before roll back\*\*

select \* from nobel;

REM \*\*Discard the most recent update operations (rollback).\*\*

ROLLBACK TO SAVEPOINT nobel\_save;

rem \*\* state of table after roll back\*\*

select \* from nobel;

REM \*\*Commit the changes.\*\*

commit;