

# TOPS Technology

## -: Assessment of Module 4 :-

- Write SQL query to solve the problem given below

Consider a scenario in which you have to create a table called Nobel\_win where you have given the information about the entity who has achieved nobel prize in a particular subject all over the world.

Over here the table Nobel\_win will contain attributes like year, subject, winner, country and category

You need to use the sql commands to create the table given and to solve the problem given below.

Eg :

YEAR	SUBJECT	WINNER	COUNTRY	CATEGORY
1970	Physics	Hannes Alfven	Sweden	Scientist
1970	Physics	Louis Neel	France	Scientist
1970	Chemistry	Luis Federico Leloir	France	Scientist
1970	Physiology	Ulf von Euler	Sweden	Scientist
1970	Physiology	Bernard Katz	Germany	Scientist
1970	Literature	Aleksandr Solzhenitsyn	Russia	Linguist
1970	Economics	Paul Samuelson	USA	Economist
1970	Physiology	Julius Axelrod	USA	Scientist
1971	Physics	Dennis Gabor	Hungary	Scientist
1971	Chemistry	Gerhard Herzberg	Germany	Scientist
1971	Peace	Willy Brandt	Germany	Chancellor
1971	Literature	Pablo Neruda	Chile	Linguist
1971	Economics	Simon Kuznets	Russia	Economist
1978	Peace	Anwar al-Sadat	Egypt	President
1978	Peace	Menachem Begin	Israel	Prime Minister
1987	Chemistry	Donald J. Cram	USA	Scientist
1987	Chemistry	Jean-Marie Lehn	France	Scientist
1987	Physiology	Susumu Tonegawa	Japan	Scientist
1994	Economics	Reinhard Selten	Germany	Economist
1994	Peace	Yitzhak Rabin	Israel	Prime Minister
1987	Physics	Johannes Georg Bednorz	Germany	Scientist
1987	Literature	Joseph Brodsky	Russia	Linguist
1987	Economics	Robert Solow	USA	Economist
1994	Literature	Kenzaburo Oe	Japan	Linguist

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```
1 create TABLE Noble_win
2 (
3     YEARS int,
4     SUBJECT varchar(20),
5     WINNER varchar(30),
6     COUNTRY varchar(20),
7     CATEGORY varchar(20)
8 );
```

```
1 insert into noble_win VALUES(1970,'Physics','Hannes Alfven','Sweden','Scientist');
2 insert into noble_win VALUES(1970,'Physics','Louis Neel','France','Scientist');
3 insert into noble_win VALUES(1970,'Chemistry','Luis Federico Leloir','France','Scientist');
4 insert into noble_win VALUES(1970,'Physiology','Ulf Von Euler','Sweden','Scientist');
5 insert into noble_win VALUES(1970,'Physiology','Bernard Katz','Germany','Scientist');
6 insert into noble_win VALUES(1970,'Literature','Aleksandr Solzhenitsyn','Russia','Linguist');
7 insert into noble_win VALUES(1970,'Economics','Paul Samuelson','USA','Economist');
8 insert into noble_win VALUES(1970,'Physiology','Julius Axelrod','USA','Scientist');
9 insert into noble_win VALUES(1971,'Physics','Dennis Gabor','Hungary','Scientist');
10 insert into noble_win VALUES(1971,'Chemistry','Gerhard Herzberg','Germany','Scientist');
11 insert into noble_win VALUES(1971,'Peace','Willy Brandt','Germany','Chancellor');
12 insert into noble_win VALUES(1971,'Literature','Pablo Neruda','Chile','Linguist');
13 insert into noble_win VALUES(1971,'Economics','Simon Kuznets','Russia','Economist');
14 insert into noble_win VALUES(1978,'Peace','Anwar al-Sadat','Egypt','President');
15 insert into noble_win VALUES(1978,'Peace','Menachem Begin','Israel','Prime Minister');
16 insert into noble_win VALUES(1971,'Economics','Simon Kuznets','Russia','Economist');
17 insert into noble_win VALUES(1978,'Peace','Anwar al-Sadat','Egypt','President');
18 insert into noble_win VALUES(1978,'Peace','Menachem Begin','Israel','Prime Minister');
19 insert into noble_win VALUES(1987,'Chemistry','Donald J. Cram','USA','Scientist');
20 insert into noble_win VALUES(1987,'Chemistry','Jean-Marie Lehn','France','Scientist');
21 insert into noble_win VALUES(1987,'Physiology','Susumu Tonegawa','Japan','Scientist');
22 insert into noble_win VALUES(1994,'Economics','Reinhard Selten','Germany','Economist');
23 insert into noble_win VALUES(1994,'Peace','Yitzhak Rabin','Israel','Prime Minister');
24 insert into noble_win VALUES(1994,'Physics','Johannes Georg Bednorz','Germany','Scientist');
25 insert into noble_win VALUES(1987,'Literature','Joseph Brodsky','Russia','Linguist');
26 insert into noble_win VALUES(1987,'Economics','Robert Solow','USA','Economist');
27 insert into noble_win VALUES(1994,'Literature','Kenzaburo Oe','Japan','Linguist');
```

YEARS  
SUBJECT  
WINNER  
COUNTRY  
CATEGORY

SUBJECT  
WINNER  
COUNTRY  
CATEGORY

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YEARS	SUBJECT	WINNER	COUNTRY	CATEGORY
1970	Physics	Hannes Alfven	Sweden	Scientist
1970	Physics	Louis Neel	France	Scientist
1970	Chemistry	Luis Federico Leloir	France	Scientist
1970	Physiology	Ulf Von Euler	Sweden	Scientist
1970	Physiology	Bernard Katz	Germany	Scientist
1970	Literature	Aleksandr Solzhenitsyn	Russia	Linguist
1970	Economics	Paul Samuelson	USA	Economist
1970	Physiology	Julius Axelrod	USA	Scientist
1971	Physics	Dennis Gabor	Hungary	Scientist
1971	Chemistry	Gerhard Herzberg	Germany	Scientist
1971	Peace	Willy Brandt	Germany	Chancellor
1971	Literature	Pablo Neruda	Chile	Linguist
1971	Economics	Simon Kuznets	Russia	Economist
1978	Peace	Anwar al-Sadat	Egypt	President
1978	Peace	Menachem Begin	Israel	Prime Minister
1987	Chemistry	Donald J. Cram	USA	Scientist
1987	Chemistry	Jean-Marie Lehn	France	Scientist
1987	Physiology	Susumu Tonegawa	Japan	Scientist
1994	Economics	Reinhard Selten	Germany	Economist
1994	Peace	Yitzhak Rabin	Israel	Prime Minister
1994	Physics	Johannes Georg Bednorz	Germany	Scientist

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YEARS	SUBJECT	WINNER	COUNTRY	CATEGORY
1987	Physiology	Susumu Tonegawa	Japan	Scientist
1994	Economics	Reinhard Selten	Germany	Economist
1994	Peace	Yitzhak Rabin	Israel	Prime Minister
1994	Physics	Johannes Georg Bednorz	Germany	Scientist
1987	Literature	Joseph Brodsky	Russia	Linguist
1987	Economics	Robert Solow	USA	Economist
1994	Literature	Kenzaburo Oe	Japan	Linguist

Now make sure to solve the following query :

- Write sql query to find the nobel prize winners of the year 1970. Return year,subject and winner

Answer :- `SELECT YEARS, SUBJECT,WINNER from noble_win where YEARS=1970;`

YEARS	SUBJECT	WINNER
1970	Physics	Hannes Alfven
1970	Physics	Louis Neel
1970	Chemistry	Luis Federico Leloir
1970	Physiology	Ulf Von Euler
1970	Physiology	Bernard Katz
1970	Literature	Aleksandr Solzhenitsyn
1970	Economics	Paul Samuelson
1970	Physiology	Julius Axelrod

- Write sql query to find the nobel prize winners in chemistry between the years 1965 and 1975. Begin and end values are included Return year, subject, winner and country

Answer :-

`SELECT YEARS, SUBJECT, WINNER, COUNTRY from noble_win where SUBJECT='Chemistry'AND YEARS BETWEEN 1965 AND 1975;`

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Extra options

YEARS	SUBJECT	WINNER	COUNTRY
1970	Chemistry	Luis Federico Leloir	France
1971	Chemistry	Gerhard Herzberg	Germany

- Write sql query to retrieve the details of the winners whose first name matches with the string 'Louis'.  
Return year, subject, winner, country

Answer :-

```
SELECT YEARS, SUBJECT, WINNER, COUNTRY from noble_win where WINNER LIKE 'Louis%';
```

Extra options

YEARS	SUBJECT	WINNER	COUNTRY
1970	Physics	Louis Neel	France

- Write sql query to find Nobel prize winners for the subject that does not begin with the letter 'P'.  
Order the result by year, descending and winner in ascending

Answer :-

```
SELECT * from noble_win WHERE SUBJECT NOT LIKE 'P%' ORDER BY WINNER, YEARS DESC;
```

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YEARS ▼ 2	SUBJECT	WINNER ▲ 1	COUNTRY	CATEGORY
1970	Literature	Aleksandr Solzhenitsyn	Russia	Linguist
1987	Chemistry	Donald J. Cram	USA	Scientist
1971	Chemistry	Gerhard Herzberg	Germany	Scientist
1987	Chemistry	Jean-Marie Lehn	France	Scientist
1987	Literature	Joseph Brodsky	Russia	Linguist
1994	Literature	Kenzaburo Oe	Japan	Linguist
1970	Chemistry	Luis Federico Leloir	France	Scientist
1971	Literature	Pablo Neruda	Chile	Linguist
1970	Economics	Paul Samuelson	USA	Economist
1994	Economics	Reinhard Selten	Germany	Economist
1987	Economics	Robert Solow	USA	Economist
1971	Economics	Simon Kuznets	Russia	Economist

- Write sql query to find the details of 1970 Nobel prize winners. Order the result by subject, ascending except for 'Chemistry' and 'Economics' which will come at the end of the result set. Return year, subject, winner , country and category.

Answer :-

```
SELECT * FROM noble_win where YEARS=1970 order by SUBJECT IN('Chemistry','Economics');
```

YEARS	SUBJECT	WINNER	COUNTRY	CATEGORY
1970	Physics	Hannes Alfven	Sweden	Scientist
1970	Physics	Louis Neel	France	Scientist
1970	Physiology	Ulf Von Euler	Sweden	Scientist
1970	Physiology	Bernard Katz	Germany	Scientist
1970	Literature	Aleksandr Solzhenitsyn	Russia	Linguist
1970	Physiology	Julius Axelrod	USA	Scientist
1970	Chemistry	Luis Federico Leloir	France	Scientist
1970	Economics	Paul Samuelson	USA	Economist

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