

# SQL Nobel Prize Assessment Solution[MODULE 4]

## Step 1: Create Database

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```
CREATE DATABASE NobelDB;
```

## Step 2: Select (Use) the Database

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```
USE NobelDB;
```

## Step 3: Create Table

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SQL Query:

```
CREATE TABLE Nobel_win (  
    year INT,  
    subject VARCHAR(50),  
    winner VARCHAR(100),  
    country VARCHAR(50),  
    category VARCHAR(50)  
);
```

Explanation: This query creates a table 'Nobel\_win' with the required columns.

## Step 4: Insert Data

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To insert data into the Nobel\_win table, you use the **INSERT INTO** SQL query.

```
INSERT INTO Nobel_win (column1, column2, column3, ...)  
VALUES (value1, value2, value3, ...);
```

Insert data into the table based on the given image.

```
INSERT INTO Nobel_win VALUES  
(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');

## Step 5: Select from Table

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```
SELECT * FROM Nobel_win;
```

### Q1: Nobel prize winners of the year 1970

SQL Query:

```
SELECT year, subject, winner  
FROM Nobel_win  
WHERE year = 1970;
```

Expected Output:

```
1970 | Physics   | Hannes Alfvén  
1970 | Physics   | Louis Néel  
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
```

### Q2: Nobel prize winners in Chemistry between 1965 and 1975

SQL Query:

```
SELECT year, subject, winner, country  
FROM Nobel_win  
WHERE subject = 'Chemistry'  
AND year BETWEEN 1965 AND 1975;
```

Expected Output:

```
1970 | Chemistry | Luis Federico Leloir | France  
1971 | Chemistry | Gerhard Herzberg   | Germany
```

### Q3: Winners whose first name matches 'Louis'

SQL Query:

```
SELECT year, subject, winner, country
FROM Nobel_win
WHERE winner LIKE 'Louis%';
```

Expected Output:

1970 | Physics | Louis Neel | France

### Q4: Nobel winners for subjects not starting with 'P', ordered

SQL Query:

```
SELECT year, subject, winner
FROM Nobel_win
WHERE subject NOT LIKE 'P%'
ORDER BY year DESC, winner ASC;
```

Expected Output:

1994 | Literature | Kenzaburo Oe  
1994 | Economics | Reinhard Selten  
1987 | Literature | Joseph Brodsky  
1987 | Chemistry | Donald J. Cram  
1987 | Chemistry | Jean-Marie Lehn ...

### Q5: 1970 winners sorted (Chemistry & Economics last)

SQL Query:

```
SELECT year, subject, winner, country, category
FROM Nobel_win
WHERE year = 1970
ORDER BY
CASE
    WHEN subject IN ('Chemistry', 'Economics') THEN 2
    ELSE 1
END,
subject ASC;
```

Expected Output:

1970 | Literature | Aleksandr Solzhenitsyn | Russia | Linguist  
1970 | Physics | Hannes Alfvén | Sweden | Scientist  
1970 | Physics | Louis Neel | France | Scientist  
1970 | Physiology | Ulf von Euler | Sweden | Scientist  
1970 | Physiology | Bernard Katz | Germany | Scientist  
1970 | Physiology | Julius Axelrod | USA | Scientist  
1970 | Chemistry | Luis Federico Leloir | France | Scientist  
1970 | Economics | Paul Samuelson | USA | Economist