Java Enterprise Edition

ANUDIP FOUNDATION

SQL Basic Select Statement: Exercise-1 **Time: 240 Min**

Write a query to display all the columns from salesman table.

Sample table: salesman

```
salesman_id |    name     |   city    | commission
-------------+-------------+-----------+------------
        5001 | James Hoog  | New York  |       0.15
        5002 | Nail Knite  | Paris     |       0.13
        5005 | Pit Alex    | London    |       0.11
        5006 | Mc Lyon     | Paris     |       0.14
        5007 | Paul Adam   | Rome      |       0.13
        5003 | Lauson Hen  | San Jose  |       0.12
```

Sample Solution:

```sql
SELECT * FROM salesman;
```

Copy
Output of the Query:

```
salesman_id     name            city            commission
5001            James Hoog      New York        0.15
5002            Nail Knite      Paris           0.13
5005            Pit Alex        London          0.11
5006            Mc Lyon Paris                   0.14
5007            Paul Adam       Rome            0.13
5003            Lauson Hen      San Jose        0.12
```

Explanation:

SQL syntax:

```sql
SELECT [DISTINCT] [<qualifier>.]<column_name> |*|
<expression>
[AS <column_alias>],...
FROM <table_or_view_name> |
<inline_view>
[[AS] <table_alias>]
[WHERE <predicate>]
[GROUP BY [<qualifier>.]<column_name>,...
[HAVING <predicate>]
]
[ORDER_BY <column_name> |
<column_number>
[ASC | DESC],...
];
```

SQL Basic Select Statement: Exercise-2

Write a query to display only name and commission from table salesman.

Sample table: salesman

```
salesman_id |    name     |   city    | commission
-------------+-------------+-----------+------------
       5001 | James Hoog  | New York  |      0.15
       5002 | Nail Knite  | Paris     |      0.13
       5005 | Pit Alex    | London    |      0.11
       5006 | Mc Lyon     | Paris     |      0.14
       5007 | Paul Adam   | Rome      |      0.13
       5003 | Lauson Hen  | San Jose  |      0.12
```

Sample Solution:

```
SELECT name, commission

FROM salesman;
```

Copy
Output of the Query:

```
name            commission
James Hoog      0.15
Nail Knite      0.13
Pit Alex        0.11
Mc Lyon         0.14
Paul Adam       0.13
Lauson Hen      0.12
```

SQL Basic Select Statement: Exercise-3

Write a query to display salesman_id, salesman name, order date, order no, and purchase amount from orders table.

Sample table : orders
```
ord_no     purch_amt   ord_date    customer_id  salesman_id
---------- ----------  ----------  -----------  -----------
70001      150.5       2012-10-05  3005         5002
70009      270.65      2012-09-10  3001         5005
70002      65.26       2012-10-05  3002         5001
70004      110.5       2012-08-17  3009         5003
70007      948.5       2012-09-10  3005         5002
70005      2400.6      2012-07-27  3007         5001
70008      5760        2012-09-10  3002         5001
70010      1983.43     2012-10-10  3004         5006
70003      2480.4      2012-10-10  3009         5003
70012      250.45      2012-06-27  3008         5002
70011      75.29       2012-08-17  3003         5007
70013      3045.6      2012-04-25  3002         5001
```

Sample Solution :

```
SELECT ord_date, salesman_id, ord_no, purch_amt

FROM orders;
```

Copy
Output of the Query:

```
ord_date        salesman_id     ord_no  purch_amt
2012-09-10      5005            70009   270.65
2012-10-05      5001            70002   65.26
2012-08-17      5003            70004   110.50
2012-07-27      5001            70005   2400.60
2012-09-10      5001            70008   5760.00
2012-10-10      5006            70010   1983.43
2012-10-10      5003            70003   2480.40
2012-08-17      5007            70011   75.29
2012-04-25      5001            70013   3045.60
2012-10-05      5002            70001   150.50
2012-09-10      5002            70007   948.50
2012-06-27      5002            70012   250.45
```

SQL Basic Select Statement : Exercise-4 .

Write a query which will retrieve the values of salesman id of all salesmen getting orders from the customers in orders table without any repeats.

Sample table: orders

```
ord_no      purch_amt   ord_date    customer_id  salesman_id
----------  ----------  ----------  -----------  -----------
70001       150.5       2012-10-05  3005         5002
70009       270.65      2012-09-10  3001         5005
70002       65.26       2012-10-05  3002         5001
70004       110.5       2012-08-17  3009         5003
70007       948.5       2012-09-10  3005         5002
70005       2400.6      2012-07-27  3007         5001
70008       5760        2012-09-10  3002         5001
70010       1983.43     2012-10-10  3004         5006
70003       2480.4      2012-10-10  3009         5003
70012       250.45      2012-06-27  3008         5002
70011       75.29       2012-08-17  3003         5007
70013       3045.6      2012-04-25  3002         5001
```

Sample Solution :

```
SELECT DISTINCT salesman_id
```

```
FROM orders;
```

Copy
Output of the Query:

```
salesman_id
5002
5003
5006
5001
5005
5007
```

SQL Basic Select Statement: Exercise-5 .

Write a query to display names and city of salesman, who belongs to the city of Paris.

Sample table: salesman

```
salesman_id |    name     |   city    | commission
-------------+-------------+-----------+------------
        5001 | James Hoog  | New York  |       0.15
        5002 | Nail Knite  | Paris     |       0.13
        5005 | Pit Alex    | London    |       0.11
        5006 | Mc Lyon     | Paris     |       0.14
        5007 | Paul Adam   | Rome      |       0.13
        5003 | Lauson Hen  | San Jose  |       0.12
```

Sample Solution :

```
SELECT name,city

FROM salesman

WHERE city='Paris';
```

Copy
Output of the Query:

```
name            city
Nail Knite      Paris
Mc Lyon         Paris
```

SQL Basic Select Statement: Exercise-6 .

Write a SQL statement to display all the information for those customers with a grade of 200.

Sample table: customer

```
customer_id |    cust_name    |    city     | grade | salesman_id
------------+-----------------+------------+-------+-------------
       3002 | Nick Rimando    | New York   |   100 |        5001
       3007 | Brad Davis      | New York   |   200 |        5001
       3005 | Graham Zusi     | California |   200 |        5002
       3008 | Julian Green    | London     |   300 |        5002
       3004 | Fabian Johnson  | Paris      |   300 |        5006
       3009 | Geoff Cameron   | Berlin     |   100 |        5003
       3003 | Jozy Altidor    | Moscow     |   200 |        5007
       3001 | Brad Guzan      | London     |       |        5005
```

Sample Solution:

```sql
SELECT *FROM customer

WHERE grade=200;
```

Copy
Output of the Query:

```
customer_id      cust_name        city        grade       salesman_id
3007             Brad Davis       New York       200              5001
3005             Graham Zusi      California     200              5002
3003             Jozy Altidor     Moscow         200              5007
```

SQL Basic Select Statement: Exercise-7 .

Write a sql query to display the order number followed by order date and the purchase amount for each order which will be delivered by the salesman who is holding the ID 5001.

Sample table: orders

```
ord_no      purch_amt    ord_date     customer_id   salesman_id
----------  ----------   ----------   -----------   -----------
70001       150.5        2012-10-05   3005          5002
70009       270.65       2012-09-10   3001          5005
70002       65.26        2012-10-05   3002          5001
70004       110.5        2012-08-17   3009          5003
70007       948.5        2012-09-10   3005          5002
70005       2400.6       2012-07-27   3007          5001
70008       5760         2012-09-10   3002          5001
70010       1983.43      2012-10-10   3004          5006
70003       2480.4       2012-10-10   3009          5003
70012       250.45       2012-06-27   3008          5002
70011       75.29        2012-08-17   3003          5007
70013       3045.6       2012-04-25   3002          5001
```

Sample Solution:

```sql
SELECT ord_no, ord_date, purch_amt
```

```
FROM orders

WHERE salesman_id=5001;
```

Copy
Output of the Query:

```
ord_no  ord_date       purch_amt
70002   2012-10-05     65.26
70005   2012-07-27     2400.60
70008   2012-09-10     5760.00
70013   2012-04-25     3045.60
```

SQL Basic Select Statement: Exercise-8 .

Write a SQL query to display the Nobel prizes for 1970.

Sample table : nobel_win

```
YEAR    SUBJECT         WINNER                  COUNTRY                                       CATEGORY
----  ------------------------  -------------------------------------------  ----------
-------
1970  Physics      Hannes Alfven           Sweden                Scientist
1970  Physics     Louis Neel              France                Scientist
1970 Chemistry    Lluis 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                PrimeMinister
1987 Physics      Johannes Georg Bednorz  Germany               Scientist
1987 Literature   Joseph Brodsky          Russia                Linguist
1987 Economics    Robert Solow            USA                   Economist
1994 Literature   Kenzaburo Oe            Japan
```

Sample Solution :

```
SELECT year,subject,winner

FROM nobel_win
```

```
WHERE year=1970;
```

Copy
Output of the Query:

```
year    subject       winner
1970    Physics       Hannes Alfven
1970    Physics       Louis Neel
1970    Chemistry     Luis Federico Leloir
1970    Physiology    Julius Axelrod
1970    Physiology    Ulf von Euler
1970    Physiology    Bernard Katz
1970    Literature    Aleksandr Solzhenitsyn
1970    Economics     Paul Samuelson
```

SQL Basic Select Statement: Exercise-9 .

Write a SQL query to know the winner of the 1971 prize for Literature.

Sample table: nobel_win

YEAR	SUBJECT	WINNER	COUNTRY	CATEGORY
1970	Physics	Hannes Alfven	Sweden	Scientist
1970	Physics	Louis Neel	France	Scientist
1970	Chemistry	Lluis 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	PrimeMinister
1987	Physics	Johannes Georg Bednorz	Germany	Scientist
1987	Literature	Joseph Brodsky	Russia	Linguist
1987	Economics	Robert Solow	USA	Economist
1994	Literature	Kenzaburo Oe	Japan	

Sample Solution:

```sql
SELECT winner

  FROM nobel_win

 WHERE year = 1971

   AND subject = 'Literature';
```

Copy
Output of the Query:

```
winner
Pablo Neruda
```

SQL Basic Select Statement: Exercise-10 .

Write a SQL query to display the year and subject that won 'Dennis Gabor' his prize.

Sample table: nobel_win

```
YEAR    SUBJECT         WINNER              COUNTRY                                    CATEGORY
---- ----------------------- ------------------------------------------- ----------
-------
1970  Physics      Hannes Alfven           Sweden                   Scientist
1970  Physics     Louis Neel               France                   Scientist
1970 Chemistry    Lluis 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                   PrimeMinister
1987 Physics      Johannes Georg Bednorz   Germany                  Scientist
1987 Literature   Joseph Brodsky           Russia                   Linguist
1987 Economics    Robert Solow             USA                      Economist
1994 Literature   Kenzaburo Oe             Japan
```

Sample Solution:

```
SELECT year, subject

  FROM nobel_win

 WHERE winner = 'Dennis Gabor';
```

Copy
Output of the Query:

```
year    subject
1971    Physics
```

SQL Basic Select Statement: Exercise-11 .

Write a SQL query to give the name of the 'Physics' winners since the year 1950.

Sample table: nobel_win

```
YEAR    SUBJECT        WINNER                   COUNTRY                                    CATEGORY
---- ----------------------- -------------------------------------------- ----------
-------
1970  Physics         Hannes Alfven            Sweden                     Scientist
1970  Physics        Louis Neel               France                     Scientist
1970 Chemistry      Lluis 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                     PrimeMinister
1987 Physics        Johannes Georg Bednorz   Germany                    Scientist
1987 Literature     Joseph Brodsky           Russia                     Linguist
1987 Economics      Robert Solow             USA                        Economist
1994 Literature     Kenzaburo Oe             Japan
```

Sample Solution :

```
SELECT winner

FROM nobel_win
```

```
WHERE year>=1950

AND subject='Physics';
```

Copy
Output of the Query:

```
winner
Hannes Alfven
Louis Neel
Dennis Gabor
Johannes Georg Bednorz
```

SQL Basic Select Statement: Exercise-12 .

Write a SQL query to show all the details (year, subject, winner, country) of the Chemistry prize winners between the year 1965 to 1975 inclusive.

Sample table: nobel_win

```
 YEAR   SUBJECT        WINNER                COUNTRY                                    CATEGORY
 ----  ----------------------  ------------------------  --------------------------------------------  -----------
 -------
 1970  Physics        Hannes Alfven         Sweden                                     Scientist
 1970  Physics       Louis Neel             France                                     Scientist
 1970 Chemistry    Lluis 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                                     PrimeMinister
 1987 Physics       Johannes Georg Bednorz  Germany                                    Scientist
 1987 Literature    Joseph Brodsky          Russia                                     Linguist
 1987 Economics     Robert Solow            USA                                        Economist
 1994 Literature    Kenzaburo Oe            Japan
```

Sample Solution:

```
SELECT year, subject, winner, country
```

```
   FROM nobel_win

 WHERE subject = 'Chemistry'

   AND year>=1965 AND year<=1975;
```

Copy
Output of the Query:

```
year    subject      winner                country
1970    Chemistry    Luis Federico Leloir  France
1971    Chemistry    Gerhard Herzberg         Germany
```

SQL Basic Select Statement: Exercise-13 .

Write a SQL query to show all details of the Prime Ministerial winners after 1972 of Menachem Begin and Yitzhak Rabin.

Sample table: nobel_win

```
YEAR    SUBJECT          WINNER                COUNTRY                          CATEGORY
----    ----------------------   ------------------------------------   -----------
-------
1970  Physics       Hannes Alfven        Sweden                           Scientist
1970   Physics      Louis Neel           France                           Scientist
1970 Chemistry      Lluis 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                           PrimeMinister
1987 Physics        Johannes Georg Bednorz  Germany                       Scientist
1987 Literature     Joseph Brodsky       Russia                           Linguist
1987 Economics      Robert Solow         USA                              Economist
1994 Literature     Kenzaburo Oe         Japan
```

Sample Solution:

```sql
SELECT * FROM nobel_win
```

```
WHERE year >1972

  AND winner IN ('Menachem Begin',

                'Yitzhak Rabin');
```

Copy
Output of the Query:

```
year    subject winner          country category
1978    Peace   Menachem Begin  Israel  Prime Minister
1994    Peace   Yitzhak Rabin   Israel  Prime Minister
```

SQL Basic Select Statement: Exercise-14 .

Write a SQL query to show all the details of the winners with first name Louis.

Sample table: nobel_win

```
YEAR    SUBJECT          WINNER              COUNTRY                                    CATEGORY
----    ----------------------  ---------------------------------------------  ----------
-------
1970  Physics        Hannes Alfven       Sweden         Scientist
1970   Physics     Louis Neel          France         Scientist
1970 Chemistry    Lluis 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         PrimeMinister
1987 Physics      Johannes Georg Bednorz  Germany        Scientist
1987 Literature   Joseph Brodsky      Russia         Linguist
1987 Economics    Robert Solow        USA            Economist
1994 Literature   Kenzaburo Oe        Japan
```

Sample Solution:

```
SELECT *

  FROM nobel_win
```

```
    WHERE winner LIKE 'Louis %';
```

Copy
Output of the Query:

```
year    subject winner  country category
1970    Physics Louis Neel      France  Scientist
```

SQL Basic Select Statement: Exercise-15 .

Write a SQL query to show all the winners in Physics for 1970 together with the winner of Economics for 1971.

Sample table: nobel_win

```
YEAR    SUBJECT         WINNER                COUNTRY                                    CATEGORY
----  -----------------------  -------------------------------------------  ----------
-------
1970  Physics         Hannes Alfven          Sweden                         Scientist
1970  Physics         Louis Neel             France                         Scientist
1970 Chemistry        Lluis 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                         PrimeMinister
1987 Physics          Johannes Georg Bednorz Germany                        Scientist
1987 Literature       Joseph Brodsky         Russia                         Linguist
1987 Economics        Robert Solow           USA                            Economist
1994 Literature       Kenzaburo Oe           Japan
```

Sample Solution:

```sql
SELECT * FROM nobel_win  WHERE (subject ='Physics' AND year=1970) UNION (SELECT * FROM
nobel_win  WHERE (subject ='Economics' AND year=1971));
```

Copy
Output of the Query:

```
year    subject         winner          country   category
```

```
1970    Physics      Hannes Alfven   Sweden   Scientist
1970    Physics      Louis Neel      France   Scientist
1971    Economics    Simon Kuznets   Russia   Economist
```

SQL Basic Select Statement: Exercise-16 .

Write a SQL query to show all the winners of nobel prize in the year 1970 except the subject Physiology and Economics.

Sample table: nobel_win

```
YEAR    SUBJECT              WINNER                       COUNTRY              CATEGORY
----    -------------------  ---------------------------  -------------------  ----------
-------
1970  Physics       Hannes Alfven            Sweden               Scientist
1970  Physics     Louis Neel               France               Scientist
1970 Chemistry    Lluis 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               PrimeMinister
1987 Physics      Johannes Georg Bednorz   Germany              Scientist
1987 Literature   Joseph Brodsky           Russia               Linguist
1987 Economics    Robert Solow             USA                  Economist
1994 Literature   Kenzaburo Oe             Japan
```

Sample Solution:

```sql
SELECT *

 FROM nobel_win

   WHERE year=1970

    AND subject NOT IN('Physiology','Economics');
```

Copy
Output of the Query:

```
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     Literature Aleksandr Solzhenitsyn Russia      Linguist
```

SQL Basic Select Statement: Exercise-17 .

Write a SQL query to show the winners of a 'Physiology' prize in an early year before 1971 together with winners of a 'Peace' prize in a later year on and after the 1974.

Sample table: nobel_win

```
YEAR   SUBJECT        WINNER                 COUNTRY                            CATEGORY
----  -----------------------  -----------------------------------------  ----------
-------
1970  Physics         Hannes Alfven          Sweden                       Scientist
1970  Physics         Louis Neel             France                       Scientist
1970 Chemistry        Lluis 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                       PrimeMinister
1987 Physics          Johannes Georg Bednorz Germany                      Scientist
1987 Literature       Joseph Brodsky         Russia                       Linguist
1987 Economics        Robert Solow           USA                          Economist
1994 Literature       Kenzaburo Oe           Japan
```

Sample Solution:

```sql
SELECT * FROM nobel_win WHERE (subject ='Physiology' AND year<1971) UNION (SELECT * FROM
nobel_win WHERE (subject ='Peace' AND year>=1974));
```

Copy
Output of the Query:

```
year     subject       winner          country category
1970     Physiology    Bernard Katz    Germany Scientist
1970     Physiology    Julius Axelrod  USA     Scientist
```

```
1970    Physiology      Ulf von Euler  Sweden  Scientist
1978    Peace           Anwar al-Sadat Egypt   President
1978    Peace           Menachem Begin Israel  Prime Minister
1994    Peace           Yitzhak Rabin  Israel  Prime Minister
```

SQL Basic Select Statement: Exercise-18 .

Write a SQL query to find all details of the prize won by Johannes Georg Bednorz.

Sample table : nobel_win

```
YEAR    SUBJECT        WINNER                     COUNTRY                                 CATEGORY
----  ------------------------ ---------------------------------------------- ----------
-------
1970  Physics        Hannes Alfven              Sweden                      Scientist
1970  Physics        Louis Neel                 France                      Scientist
1970 Chemistry       Lluis 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                      PrimeMinister
1987 Physics         Johannes Georg Bednorz     Germany                     Scientist
1987 Literature      Joseph Brodsky             Russia                      Linguist
1987 Economics       Robert Solow               USA                         Economist
1994 Literature      Kenzaburo Oe               Japan
```

Sample Solution :

```sql
SELECT *

 FROM nobel_win

   WHERE winner='Johannes Georg Bednorz';
```

Copy
Output of the Query:

```
year    subject        winner          country     category
```

1987   Physics Johannes Georg Bednorz   Germany   Scientist

SQL Basic Select Statement: Exercise-19 .

Write a SQL query to find all the details of the nobel winners for the subject not started with the letter 'P' and arranged the list as the most recent comes first, then by name in order.

Sample table : nobel_win

```
YEAR    SUBJECT          WINNER                   COUNTRY                              CATEGORY
---- ------------------------  --------------------------------------  ------------
-------
1970  Physics          Hannes Alfven            Sweden                               Scientist
1970  Physics          Louis Neel               France                               Scientist
1970 Chemistry         Lluis 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                               PrimeMinister
1987 Physics           Johannes Georg Bednorz   Germany                              Scientist
1987 Literature        Joseph Brodsky           Russia                               Linguist
1987 Economics         Robert Solow             USA                                  Economist
1994 Literature        Kenzaburo Oe             Japan
```

Sample Solution :

```sql
SELECT *

 FROM nobel_win

  WHERE subject NOT LIKE 'P%'

   ORDER BY year DESC, winner;
```

Copy
Output of the Query:

year   subject   winner   country   category

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

SQL Basic Select Statement: Exercise-20 .

Write a SQL query to find all the details of 1970 winners by the ordered to subject and winner name; but the list contain the subject Economics and Chemistry at last.

Sample table: nobel_win

```
 YEAR   SUBJECT            WINNER                      COUNTRY                         CATEGORY
 ----   ----------------------- ---------------------------------------------- ----------
 -------
 1970  Physics        Hannes Alfven          Sweden                 Scientist
 1970  Physics        Louis Neel             France                 Scientist
 1970 Chemistry       Lluis 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                 PrimeMinister
 1987 Physics         Johannes Georg Bednorz Germany                Scientist
 1987 Literature      Joseph Brodsky         Russia                 Linguist
 1987 Economics       Robert Solow           USA                    Economist
 1994 Literature      Kenzaburo Oe           Japan
```

Sample Solution :

SELECT *

FROM nobel_win

```
WHERE year=1970

ORDER BY

 CASE

    WHEN subject IN ('Economics','Chemistry') THEN 1

    ELSE 0

 END ASC,

 subject,

 winner;
```
Copy
Output of the Query:

```
year    subject       winner               country      category
1970    Literature    Aleksandr Solzhenitsyn Russia      Linguist
1970    Physics       Hannes Alfven        Sweden       Scientist
1970    Physics       Louis Neel           France       Scientist
1970    Physiology    Bernard Katz         Germany      Scientist
1970    Physiology    Julius Axelrod       USA          Scientist
1970    Physiology    Ulf von Euler        Sweden       Scientist
1970    Chemistry     Luis Federico Leloir France       Scientist
1970    Economics     Paul Samuelson       USA          Economist
```

SQL Basic Select Statement: Exercise-21 .

Write a SQL query to find all the products with a price between Rs.200 and Rs.600.

Sample table: item_mast

```
PRO_ID PRO_NAME                   PRO_PRICE   PRO_COM
------- -------------------------- ---------- ----------
    101 Mother Board                    3200          15
    102 Key Board                        450          16
    103 ZIP drive                        250          14
    104 Speaker                          550          16
    105 Monitor                         5000          11
    106 DVD drive                        900          12
    107 CD drive                         800          12
    108 Printer                         2600          13
    109 Refill cartridge                 350          13
    110 Mouse                            250          12
```

Sample Solution :

SELECT * FROM item_mast

```
    WHERE pro_price BETWEEN 200 AND 600;
```

Copy
Output of the Query:

```
pro_id          pro_name        pro_price       pro_com
102             Key Board       450.00          16
103             ZIP drive       250.00          14
104             Speaker          550.00         16
109             Refill cartridge 350.00          13
110             Mouse           250.00          12
```

SQL Basic Select Statement: Exercise-22 .

Write a SQL query to calculate the average price of all products of the manufacturer which code is 16.

Sample table: item_mast

```
 PRO_ID PRO_NAME                        PRO_PRICE    PRO_COM
------- ------------------------- ---------- ----------
    101 Mother Board                         3200         15
    102 Key Board                             450         16
    103 ZIP drive                             250         14
    104 Speaker                               550         16
    105 Monitor                              5000         11
    106 DVD drive                             900         12
    107 CD drive                              800         12
    108 Printer                              2600         13
    109 Refill cartridge                      350         13
    110 Mouse                                 250         12
```

Sample Solution:

```sql
SELECT AVG(pro_price) FROM item_mast

  WHERE pro_com=16;
```

Copy
Output of the Query:

```
avg
500.0000000000000000
```

SQL Basic Select Statement: Exercise-23 .

Write a SQL query to find the item name and price in Rs.

Sample table : item_mast

```
  PRO_ID PRO_NAME                    PRO_PRICE    PRO_COM
 ------- ------------------------- ---------- ----------
    101 Mother Board                     3200         15
    102 Key Board                         450         16
    103 ZIP drive                         250         14
    104 Speaker                           550         16
    105 Monitor                          5000         11
    106 DVD drive                         900         12
    107 CD drive                          800         12
    108 Printer                          2600         13
    109 Refill cartridge                  350         13
    110 Mouse                             250         12
```

Sample Solution :

```sql
SELECT pro_name as "Item Name", pro_price AS "Price in Rs."

    FROM item_mast;
```

Copy
Output of the Query:

```
Item Name        Price in Rs.
Mother Board     3200.00
Key Board        450.00
ZIP drive        250.00
Speaker          550.00
Monitor          5000.00
DVD drive        900.00
CD drive         800.00
Printer          2600.00
Refill cartridge 350.00
Mouse            250.00
```

SQL Basic Select Statement: Exercise-24 .

Write a SQL query to display the name and price of all the items with a price is equal or more than Rs.250, and the list contain the larger price first and then by name in ascending order.

Sample table: item_mast

```
  PRO_ID PRO_NAME                    PRO_PRICE    PRO_COM
 ------- ------------------------- ---------- ----------
    101 Mother Board                     3200         15
    102 Key Board                         450         16
    103 ZIP drive                         250         14
    104 Speaker                           550         16
    105 Monitor                          5000         11
    106 DVD drive                         900         12
    107 CD drive                          800         12
    108 Printer                          2600         13
```

```
    109 Refill cartridge                    350          13
    110 Mouse                               250          12
```

Sample Solution:

```sql
SELECT pro_name, pro_price

    FROM item_mast

   WHERE pro_price >= 250

 ORDER BY pro_price DESC, pro_name;
```

Copy
Output of the Query:

```
pro_name              pro_price
Monitor          5000.00
Mother Board    3200.00
Printer          2600.00
DVD drive             900.00
CD drive              800.00
Speaker          550.00
Key Board             450.00
Refill cartridge 350.00
Mouse            250.00
ZIP drive             250.00
```

SQL Basic Select Statement: Exercise-25 .

Write a SQL query to display the average price of the items for each company, showing only the company code.

Sample table: item_mast

```
PRO_ID PRO_NAME                    PRO_PRICE    PRO_COM
------- ------------------------- ---------- ----------
    101 Mother Board                    3200          15
    102 Key Board                        450          16
    103 ZIP drive                        250          14
    104 Speaker                          550          16
    105 Monitor                         5000          11
    106 DVD drive                        900          12
    107 CD drive                         800          12
    108 Printer                         2600          13
    109 Refill cartridge                 350          13
    110 Mouse                            250          12
```

Sample Solution:

```sql
SELECT AVG(pro_price), pro_com
```

```
    FROM item_mast

GROUP BY pro_com;
```

Copy
Output of the Query:

```
avg                             pro_com
250.0000000000000000            14
650.0000000000000000            12
3200.0000000000000000           15
5000.0000000000000000           11
1475.0000000000000000           13
500.0000000000000000            16
```

SQL Basic Select Statement: Exercise-26

Write a SQL query to find the name and price of the cheapest item(s).

Sample table: item_mast

```
PRO_ID PRO_NAME                  PRO_PRICE    PRO_COM
------- ------------------------- ---------- ----------
    101 Mother Board                    3200         15
    102 Key Board                        450         16
    103 ZIP drive                        250         14
    104 Speaker                          550         16
    105 Monitor                         5000         11
    106 DVD drive                        900         12
    107 CD drive                         800         12
    108 Printer                         2600         13
    109 Refill cartridge                 350         13
    110 Mouse                            250         12
```

Sample Solution:

```sql
SELECT pro_name, pro_price

   FROM item_mast

   WHERE pro_price =

   (SELECT MIN(pro_price) FROM item_mast);
```

Copy
Output of the Query:

```
pro_name        pro_price
```

```
ZIP drive        250.00
Mouse            250.00
```

SQL Basic Select Statement: Exercise-27 .

Write a query in SQL to find the last name of all employees, without duplicates.

Sample table: emp_details

```
EMP_IDNO EMP_FNAME        EMP_LNAME        EMP_DEPT
-------- --------------- --------------- ----------
  127323 Michale         Robbin                  57
  526689 Carlos          Snares                  63
  843795 Enric           Dosio                   57
  328717 Jhon            Snares                  63
  444527 Joseph          Dosni                   47
  659831 Zanifer         Emily                   47
  847674 Kuleswar        Sitaraman               57
  748681 Henrey          Gabriel                 47
  555935 Alex            Manuel                  57
  539569 George          Mardy                   27
  733843 Mario           Saule                   63
  631548 Alan            Snappy                  27
  839139 Maria           Foster                  57
```

Sample Solution:

```sql
SELECT DISTINCT emp_lname

FROM emp_details;
```

Copy
Output of the Query:

```
emp_lname
Saule
Robbin
Sitaraman
Mardy
Foster
Emily
Manuel
Dosio
Gabriel
Snappy
Snares
Dosni
```

SQL Basic Select Statement: Exercise-28

Write a query in SQL to find the data of employees whose last name is 'Snares'.

Sample table: emp_details

```
EMP_IDNO EMP_FNAME       EMP_LNAME       EMP_DEPT
-------- --------------- --------------- ----------
  127323 Michale         Robbin                  57
  526689 Carlos          Snares                  63
  843795 Enric           Dosio                   57
  328717 Jhon            Snares                  63
  444527 Joseph          Dosni                   47
  659831 Zanifer         Emily                   47
  847674 Kuleswar        Sitaraman               57
  748681 Henrey          Gabriel                 47
  555935 Alex            Manuel                  57
  539569 George          Mardy                   27
  733843 Mario           Saule                   63
  631548 Alan            Snappy                  27
  839139 Maria           Foster                  57
```

Sample Solution :

```sql
SELECT *

 FROM emp_details

  WHERE emp_lname= 'Snares';
```

Copy
Output of the Query:

```
emp_idno        emp_fname       emp_lname       emp_dept
526689          Carlos          Snares          63
328717          Jhon            Snares          63
```

SQL Basic Select Statement: Exercise-33 .

Write a query in SQL to display all the data of employees that work in the department 57.

Sample table: emp_details

```
EMP_IDNO EMP_FNAME       EMP_LNAME       EMP_DEPT
-------- --------------- --------------- ----------
  127323 Michale         Robbin                  57
  526689 Carlos          Snares                  63
  843795 Enric           Dosio                   57
  328717 Jhon            Snares                  63
  444527 Joseph          Dosni                   47
  659831 Zanifer         Emily                   47
  847674 Kuleswar        Sitaraman               57
  748681 Henrey          Gabriel                 47
```

```
555935 Alex          Manuel                57
539569 George        Mardy                 27
733843 Mario         Saule                 63
631548 Alan          Snappy                27
839139 Maria         Foster                57
```

Sample Solution:

```sql
SELECT *

 FROM emp_details

  WHERE emp_dept= 57;
```

Copy
Output:

Output of the Query:

```
emp_idno        emp_fname        emp_lname        emp_dept
839139          Maria            Foster           57
127323          Michale           Robbin          57
843795          Enric            Dosio            57
847674          Kuleswar         Sitaraman        57
555935          Alex             Manuel           57
```