Data base named “Noman” is already created and being used for today’s work.

INSERTION OF DATA:

```
mysql> USE NOMAN;
Database changed
mysql> INSERT INTO EMPLOYEE VALUES (100,'Ms','Calderdale','Emma','1972-06-15','1992-03-15','0181','324-9134','FR1001');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO EMPLOYEE VALUES (101,'Ms','Ricardo','Marshel','1978-03-19','1996-04-25','0181','324-4472','UK3452');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO EMPLOYEE VALUES (102,'Mr','Arshad','Arif','1969-11-14','1990-12-20','7253','675-8993','FR1001');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO EMPLOYEE VALUES (103,'Ms','Roberts','Anne','1974-10-16','1994-08-16','0181','898-3456','UK3452');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO EMPLOYEE VALUES (104,'Mr','Denver','Enrica','1980-11-08','2001-10-20','7253','504-4434','ZA1342');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO EMPLOYEE VALUES (105,'Ms','Namowa','Mirrelle','1990-03-14','2006-11-08','0181','890-3243','FR1001');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO EMPLOYEE VALUES (106,'Mrs','Smith','Gemma','1968-02-12','1989-01-05','0181','324-7845','ZA1342');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO TICKET VALUES (11001,24.99,'Adult','SP4533');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO TICKET VALUES (11002,14.99,'Child','SP4533');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO TICKET VALUES (11003,10.99,'Senior','SP4533');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO TICKET VALUES (13001,18.99,'Child','FR1001');
ERROR 1062 (23000): Duplicate entry '13001' for key 'PRIMARY'
mysql> INSERT INTO TICKET VALUES (13002,34.99,'Adult','FR1001');
ERROR 1062 (23000): Duplicate entry '13002' for key 'PRIMARY'
mysql> INSERT INTO TICKET VALUES (13003,20.99,'Senior','FR1001');
ERROR 1062 (23000): Duplicate entry '13003' for key 'PRIMARY'
mysql> INSERT INTO TICKET VALUES (67832,18.56,'Child','ZA1342');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO TICKET VALUES (67833,28.67,'Adult','ZA1342');
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO TICKET VALUES (67855,12.12,'Senior','ZA1342');
Query OK, 1 row affected (0.00 sec)
```

```
ysql> INSERT INTO ATTRACTION VALUES (10034,'ThunderCoaster',11,34,'FR1001');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO ATTRACTION VALUES (10056,'SpinningTeacups',4,62,'FR1001');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO ATTRACTION VALUES (10067,'FlightToStars',11,24,'FR1001');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO ATTRACTION VALUES (10078,'Ant-Trap',23,30,'FR1001');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO ATTRACTION VALUES (10098,'Carnival',3,120,'FR1001');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO ATTRACTION VALUES (20056,'3D-Lego_Show',3,200,'UK3452');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO ATTRACTION VALUES (30011,'BlackHole2',12,34,'UK3452');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO ATTRACTION VALUES (30012,'Pirates',10,42,'UK3452');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO ATTRACTION VALUES (30044,'UnderSeaWord',4,80,'UK3452');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO ATTRACTION VALUES (98764,'GoldRush',5,80,'ZA1342');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO HOURS VALUES (100,10034,6,6.5,'2007-05-18');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO HOURS VALUES (100,10034,6,6.5,'2007-05-20');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO HOURS VALUES (101,10034,6,6.5,'2007-05-18');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO HOURS VALUES (102,30012,3,5.99,'2007-05-23');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO HOURS VALUES (102,30044,6,5.99,'2007-05-21');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO HOURS VALUES (102,30044,3,5.99,'2007-05-22');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO HOURS VALUES (104,30011,6,7.2,'2007-05-21');
uery OK, 1 row affected (0.00 sec)

ysql> INSERT INTO HOURS VALUES (104,30012,6,7.2,'2007-05-22');
```

Increment:

Increment in the rate of ticket and owner want to increase it by 10%

```
mysql> SELECT PARK_CODE, TICKET_NO, TICKET_TYPE, TICKET_PRICE,
    -> TICKET_PRICE + ROUND((TICKET_PRICE *0.1),2) PRICE_INCREASE
    -> FROM TICKET;
+-----------+-----------+-------------+--------------+----------------+
| PARK_CODE | TICKET_NO | TICKET_TYPE | TICKET_PRICE | PRICE_INCREASE |
+-----------+-----------+-------------+--------------+----------------+
| FR1001    |     13001 | Child       |        18.99 |          20.89 |
| FR1001    |     13002 | Adult       |        34.99 |          38.49 |
| FR1001    |     13003 | Senior      |        20.99 |          23.09 |
| UK3452    |     88567 | Child       |        22.50 |          24.75 |
| UK3452    |     88568 | Adult       |        42.10 |          46.31 |
| UK3452    |     89720 | Senior      |        10.99 |          12.09 |
| SP4533    |     11001 | Adult       |        24.99 |          27.49 |
| SP4533    |     11002 | Child       |        14.99 |          16.49 |
| SP4533    |     11003 | Senior      |        10.99 |          12.09 |
| ZA1342    |     67832 | Child       |        18.56 |          20.42 |
| ZA1342    |     67833 | Adult       |        28.67 |          31.54 |
| ZA1342    |     67855 | Senior      |        12.12 |          13.33 |
+-----------+-----------+-------------+--------------+----------------+
12 rows in set (0.00 sec)
```

Greater than and Smaller than Operator:

Use of “Greater than” operator which enable us to find the greater value in data from a given value and the “Smaller than” enables us to find smaller value.

```
mysql> SELECT PARK_CODE, TICKET_TYPE, TICKET_PRICE
    -> FROM TICKET
    -> WHERE TICKET_PRICE > 20;
+-----------+-------------+--------------+
| PARK_CODE | TICKET_TYPE | TICKET_PRICE |
+-----------+-------------+--------------+
| FR1001    | Adult       |        34.99 |
| FR1001    | Senior      |        20.99 |
| UK3452    | Child       |        22.50 |
| UK3452    | Adult       |        42.10 |
| SP4533    | Adult       |        24.99 |
| ZA1342    | Adult       |        28.67 |
+-----------+-------------+--------------+
6 rows in set (0.00 sec)

mysql> SELECT PARK_CODE, TICKET_TYPE, TICKET_PRICE
    -> FROM TICKET
    -> WHERE TICKET_PRICE <30;
+-----------+-------------+--------------+
| PARK_CODE | TICKET_TYPE | TICKET_PRICE |
+-----------+-------------+--------------+
| FR1001    | Child       |        18.99 |
| FR1001    | Senior      |        20.99 |
| UK3452    | Child       |        22.50 |
| UK3452    | Senior      |        10.99 |
| SP4533    | Adult       |        24.99 |
| SP4533    | Child       |        14.99 |
| SP4533    | Senior      |        10.99 |
| ZA1342    | Child       |        18.56 |
| ZA1342    | Adult       |        28.67 |
| ZA1342    | Senior      |        12.12 |
+-----------+-------------+--------------+
10 rows in set (0.00 sec)
```

Character Comparison

Use of character comparison which allows to put restriction on Characters.

```
mysql>  SELECT *
    ->  FROM THEMEPARK
    ->  WHERE PARK_CODE != "UK2622";
+-----------+---------------+--------------+--------------+
| PARK_CODE | PARK_NAME     | PARK_CITY    | PARK_COUNTRY |
+-----------+---------------+--------------+--------------+
| FR1001    | FairyLand     | PARIS        | FR           |
| NL1202    | Efling        | NOORD        | NL           |
| SP4533    | AdventurePort | BARCELONA    | SP           |
| SW2323    | Labyrinthe    | LAUSANNE     | SW           |
| UK3452    | PleasureLand  | STOKE        | UK           |
| ZA1342    | GoldTown      | JOHANNESBURG | ZA           |
+-----------+---------------+--------------+--------------+
6 rows in set (0.01 sec)
```

Between Operator:

Between operator is use to find out either the value is present in a given range or not.

```
mysql> SELECT *
    -> FROM TICKET
    -> WHERE TICKET_PRICE BETWEEN 30.00 AND 50.00;
+-----------+--------------+-------------+-----------+
| TICKET_NO | TICKET_PRICE | TICKET_TYPE | PARK_CODE |
+-----------+--------------+-------------+-----------+
|     13002 |        34.99 | Adult       | FR1001    |
|     88568 |        42.10 | Adult       | UK3452    |
+-----------+--------------+-------------+-----------+
2 rows in set (0.00 sec)
```

```
mysql> SELECT EMP_NUM, ATTRACT_NO,HOURS_PER_ATTRACT
    -> FROM HOURS
    -> WHERE HOURS_PER_ATTRACT BETWEEN 5 AND 10;
+---------+------------+-------------------+
| EMP_NUM | ATTRACT_NO | HOURS_PER_ATTRACT |
+---------+------------+-------------------+
|     100 |      10034 |                 6 |
|     100 |      10034 |                 6 |
|     101 |      10034 |                 6 |
|     102 |      30044 |                 6 |
|     104 |      30011 |                 6 |
|     104 |      30012 |                 6 |
|     105 |      10098 |                 6 |
+---------+------------+-------------------+
7 rows in set (0.00 sec)
```

IN Operator:

IN operator is use to find out the value in the list or table

```
mysql> SELECT *
    -> FROM SALES_LINE
    -> WHERE TRANSACTION_NO IN (12781, 67593);
+----------------+---------+-----------+----------+------------+
| TRANSACTION_NO | LINE_NO | TICKET_NO | LINE_QTY | LINE_PRICE |
+----------------+---------+-----------+----------+------------+
|          12781 |       1 |     13002 |        2 |      69.98 |
|          12781 |       2 |     13001 |        1 |      14.99 |
|          67593 |       1 |     67833 |        2 |      57.34 |
|          67593 |       2 |     67832 |        2 |      37.12 |
+----------------+---------+-----------+----------+------------+
4 rows in set (0.00 sec)
```

```
mysql> SELECT *
    -> FROM TICKET
    -> WHERE TICKET_TYPE IN ('Child','Senior');
+-----------+--------------+-------------+-----------+
| TICKET_NO | TICKET_PRICE | TICKET_TYPE | PARK_CODE |
+-----------+--------------+-------------+-----------+
|     13001 |        18.99 | Child       | FR1001    |
|     13003 |        20.99 | Senior      | FR1001    |
|     88567 |        22.50 | Child       | UK3452    |
|     89720 |        10.99 | Senior      | UK3452    |
|     11002 |        14.99 | Child       | SP4533    |
|     11003 |        10.99 | Senior      | SP4533    |
|     67832 |        18.56 | Child       | ZA1342    |
|     67855 |        12.12 | Senior      | ZA1342    |
+-----------+--------------+-------------+-----------+
8 rows in set (0.00 sec)
```

Like Operator:

LIKE operator is use to find out pattern within the string attribute. By use % or _ symbol.

```
mysql> SELECT EMP_LNAME, EMP_FNAME, EMP_NUM\
    -> FROM EMPLOYEE
    -> WHERE EMP_FNAME LIKE 'A%';
+-----------+-----------+---------+
| EMP_LNAME | EMP_FNAME | EMP_NUM |
+-----------+-----------+---------+
| Arshad    | Arif      |     102 |
| Roberts   | Anne      |     103 |
+-----------+-----------+---------+
2 rows in set (0.00 sec)

mysql> SELECT *
    -> FROM THEMEPARK
    -> WHERE PARK_NAME LIKE '%LAND';
+-----------+--------------+-----------+--------------+
| PARK_CODE | PARK_NAME    | PARK_CITY | PARK_COUNTRY |
+-----------+--------------+-----------+--------------+
| FR1001    | FairyLand    | PARIS     | FR           |
| UK2622    | MiniLand     | WINDSOR   | UK           |
| UK3452    | PleasureLand | STOKE     | UK           |
+-----------+--------------+-----------+--------------+
3 rows in set (0.00 sec)
```

Is Null or Null:

Is NULL or NULL is use to check out the null attribute(where an empty entry) value

```
mysql> SELECT *
    -> FROM ATTRACTION
    -> WHERE ATTRACT_NAME IS NULL;
+------------+--------------+-------------+------------------+-----------+
| ATTRACT_NO | ATTRACT_NAME | ATTRACT_AGE | ATTRACT_CAPACITY | PARK_CODE |
+------------+--------------+-------------+------------------+-----------+
|      10082 | NULL         |          10 |               40 | ZA1342    |
+------------+--------------+-------------+------------------+-----------+
1 row in set (0.00 sec)
```

Logical Operator:

Logical operator is use to perform multiple operation and these work according to the precedence level of each. Operators are "**AND, OR** etc."

```
mysql> SELECT *
    -> FROM ATTRACTION
    -> WHERE ATTRACT_NAME IS NULL;
+------------+--------------+-------------+------------------+-----------+
| ATTRACT_NO | ATTRACT_NAME | ATTRACT_AGE | ATTRACT_CAPACITY | PARK_CODE |
+------------+--------------+-------------+------------------+-----------+
|      10082 | NULL         |          10 |               40 | ZA1342    |
+------------+--------------+-------------+------------------+-----------+
1 row in set (0.00 sec)

mysql> SELECT EMP_NUM, ATTRACT_NO
    -> FROM HOURS
    -> WHERE HOURS_PER_ATTRACT > 3
    -> AND DATE_WORKED > '2007-05-18';
+---------+------------+
| EMP_NUM | ATTRACT_NO |
+---------+------------+
|     100 |      10034 |
|     102 |      30044 |
|     104 |      30011 |
|     104 |      30012 |
|     105 |      10098 |
+---------+------------+
5 rows in set (0.00 sec)

mysql> SELECT *
    -> FROM ATTRACTION
    -> WHERE ATTRACT_AGE <=10;
+------------+-----------------+-------------+------------------+-----------+
| ATTRACT_NO | ATTRACT_NAME    | ATTRACT_AGE | ATTRACT_CAPACITY | PARK_CODE |
+------------+-----------------+-------------+------------------+-----------+
|      10056 | SpinningTeacups |           4 |               62 | FR1001    |
|      10098 | Carnival        |           3 |              120 | FR1001    |
|      20056 | 3D-Lego_Show    |           3 |              200 | UK3452    |
|      30012 | Pirates         |          10 |               42 | UK3452    |
|      30044 | UnderSeaWord    |           4 |               80 | UK3452    |
|      98764 | GoldRush        |           5 |               80 | ZA1342    |
|      10082 | NULL            |          10 |               40 | ZA1342    |
+------------+-----------------+-------------+------------------+-----------+
7 rows in set (0.00 sec)
```

```
mysql> SELECT *
    -> FROM ATTRACTION
    -> WHERE ATTRACT_AGE <=10
    -> AND  ATTRACT_CAPACITY <100
    -> AND  ATTRACT_NAME IS NOT NULL;
+------------+-----------------+--------------+-------------------+------------+
| ATTRACT_NO | ATTRACT_NAME    | ATTRACT_AGE | ATTRACT_CAPACITY | PARK_CODE |
+------------+-----------------+--------------+-------------------+------------+
|      10056 | SpinningTeacups |            4 |                62 | FR1001     |
|      30012 | Pirates         |           10 |                42 | UK3452     |
|      30044 | UnderSeaWord    |            4 |                80 | UK3452     |
|      98764 | GoldRush        |            5 |                80 | ZA1342     |
+------------+-----------------+--------------+-------------------+------------+
4 rows in set (0.00 sec)

mysql> SELECT PARK_NAME, PARK_COUNTRY
    -> FROM THEMEPARK
    -> WHERE PARK_COUNTRY = 'FR'
    -> OR PARK_COUNTRY = 'UK';
+--------------+--------------+
| PARK_NAME    | PARK_COUNTRY |
+--------------+--------------+
| FairyLand    | FR           |
| MiniLand     | UK           |
| PleasureLand | UK           |
+--------------+--------------+
3 rows in set (0.00 sec)

mysql> SELECT *
```

```
mysql> SELECT *
    -> FROM ATTRACTION
    -> WHERE (PARK_CODE LIKE 'FR%' AND ATTRACT_CAPACITY <50) OR (ATTRACT_CAPACITY > 100);
+------------+----------------+-------------+------------------+-----------+
| ATTRACT_NO | ATTRACT_NAME   | ATTRACT_AGE | ATTRACT_CAPACITY | PARK_CODE |
+------------+----------------+-------------+------------------+-----------+
|      10034 | ThunderCoaster |          11 |               34 | FR1001    |
|      10067 | FlightToStars  |          11 |               24 | FR1001    |
|      10078 | Ant-Trap       |          23 |               30 | FR1001    |
|      10098 | Carnival       |           3 |              120 | FR1001    |
|      20056 | 3D-Lego_Show   |           3 |              200 | UK3452    |
+------------+----------------+-------------+------------------+-----------+
5 rows in set (0.00 sec)

mysql> SELECT *
    -> FROM EMPLOYEE
    -> WHERE NOT (EMP_NUM = 106);
+---------+----------+-----------+-----------+-----------+--------------+--------------+-----------+-----------+
| EMP_NUM | EMP_TITLE | EMP_LNAME | EMP_FNAME | EMP_DOB   | EMP_HIRE_DATE | EMP_AREA_CODE | EMP_PHONE | PARK_CODE |
+---------+----------+-----------+-----------+-----------+--------------+--------------+-----------+-----------+
|     100 | Ms       | Calderdale | Emma      | 1972-06-15 | 1992-03-15    | 0181          | 324-9134  | FR1001    |
|     101 | Ms       | Ricardo    | Marshel   | 1978-03-19 | 1996-04-25    | 0181          | 324-4472  | UK3452    |
|     102 | Mr       | Arshad     | Arif      | 1969-11-14 | 1990-12-20    | 7253          | 675-8993  | FR1001    |
|     103 | Ms       | Roberts    | Anne      | 1974-10-16 | 1994-08-16    | 0181          | 898-3456  | UK3452    |
|     104 | Mr       | Denver     | Enrica    | 1980-11-08 | 2001-10-20    | 7253          | 504-4434  | ZA1342    |
|     105 | Ms       | Namowa     | Mirrelle  | 1990-03-14 | 2006-11-08    | 0181          | 890-3243  | FR1001    |
+---------+----------+-----------+-----------+-----------+--------------+--------------+-----------+-----------+
6 rows in set (0.00 sec)
```

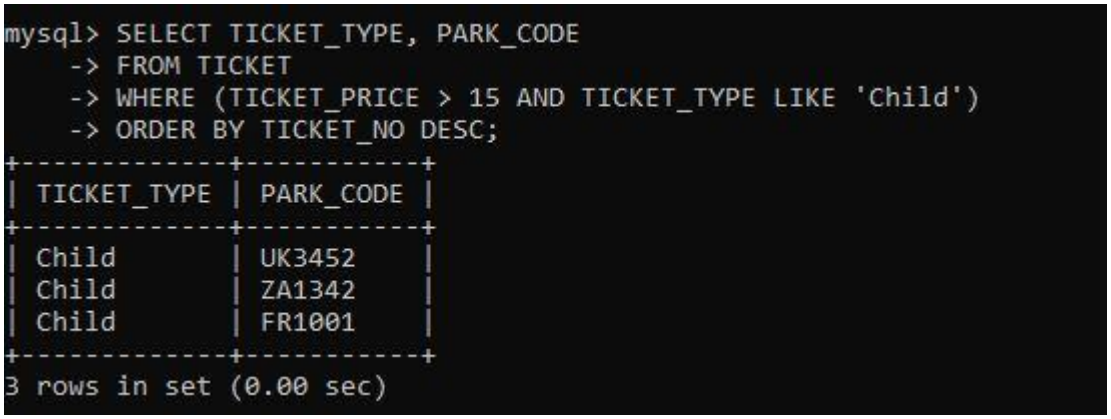
Sorting Data:

Sorting data is the arranging the data in ascending or descending order.

```
mysql> SELECT *
    -> FROM EMPLOYEE
    -> ORDER BY EMP_HIRE_DATE DESC;
+---------+-----------+------------+-----------+------------+--------------+---------------+-----------+-----------+
| EMP_NUM | EMP_TITLE | EMP_LNAME  | EMP_FNAME | EMP_DOB    | EMP_HIRE_DATE | EMP_AREA_CODE | EMP_PHONE | PARK_CODE |
+---------+-----------+------------+-----------+------------+--------------+---------------+-----------+-----------+
|     105 | Ms        | Namowa     | Mirrelle  | 1990-03-14 | 2006-11-08    | 0181          | 890-3243  | FR1001    |
|     104 | Mr        | Denver     | Enrica    | 1980-11-08 | 2001-10-20    | 7253          | 504-4434  | ZA1342    |
|     101 | Ms        | Ricardo    | Marshel   | 1978-03-19 | 1996-04-25    | 0181          | 324-4472  | UK3452    |
|     103 | Ms        | Roberts    | Anne      | 1974-10-16 | 1994-08-16    | 0181          | 898-3456  | UK3452    |
|     100 | Ms        | Calderdale | Emma      | 1972-06-15 | 1992-03-15    | 0181          | 324-9134  | FR1001    |
|     102 | Mr        | Arshad     | Arif      | 1969-11-14 | 1990-12-20    | 7253          | 675-8993  | FR1001    |
|     106 | Mrs       | Smith      | Gemma     | 1968-02-12 | 1989-01-05    | 0181          | 324-7845  | ZA1342    |
+---------+-----------+------------+-----------+------------+--------------+---------------+-----------+-----------+
7 rows in set (0.03 sec)

mysql> SELECT *
    -> FROM EMPLOYEE
    -> ORDER BY EMP_LNAME, EMP_FNAME;
+---------+-----------+------------+-----------+------------+--------------+---------------+-----------+-----------+
| EMP_NUM | EMP_TITLE | EMP_LNAME  | EMP_FNAME | EMP_DOB    | EMP_HIRE_DATE | EMP_AREA_CODE | EMP_PHONE | PARK_CODE |
+---------+-----------+------------+-----------+------------+--------------+---------------+-----------+-----------+
|     102 | Mr        | Arshad     | Arif      | 1969-11-14 | 1990-12-20    | 7253          | 675-8993  | FR1001    |
|     100 | Ms        | Calderdale | Emma      | 1972-06-15 | 1992-03-15    | 0181          | 324-9134  | FR1001    |
|     104 | Mr        | Denver     | Enrica    | 1980-11-08 | 2001-10-20    | 7253          | 504-4434  | ZA1342    |
|     105 | Ms        | Namowa     | Mirrelle  | 1990-03-14 | 2006-11-08    | 0181          | 890-3243  | FR1001    |
|     101 | Ms        | Ricardo    | Marshel   | 1978-03-19 | 1996-04-25    | 0181          | 324-4472  | UK3452    |
|     103 | Ms        | Roberts    | Anne      | 1974-10-16 | 1994-08-16    | 0181          | 898-3456  | UK3452    |
|     106 | Mrs       | Smith      | Gemma     | 1968-02-12 | 1989-01-05    | 0181          | 324-7845  | ZA1342    |
+---------+-----------+------------+-----------+------------+--------------+---------------+-----------+-----------+
7 rows in set (0.00 sec)

mysql> SELECT TICKET_TYPE, PARK_CODE
    -> FROM TICKET
    -> WHERE (TICKET_PRICE > 15 AND TICKET_TYPE LIKE 'Child')
    -> ORDER BY TICKET_NO DESC;
+-------------+-----------+
| TICKET_TYPE | PARK_CODE |
+-------------+-----------+
| Child       | UK3452    |
| Child       | ZA1342    |
| Child       | FR1001    |
+-------------+-----------+
3 rows in set (0.00 sec)
```



Distinct Key word:

Command **DISTINCT** use to produce the list of value that are different from one another.

```
mysql> SELECT DISTINCT(PARK_CODE)
    -> FROM ATTRACTION;
+-----------+
| PARK_CODE |
+-----------+
| FR1001    |
| UK3452    |
| ZA1342    |
+-----------+
3 rows in set (0.02 sec)
```