

Experiment -5

Simple queries, string manipulation operations and aggregate functions

1)Statement-To show all entries of the Album Table

select * from album

Output-

| ALBUM_ID | TITLE | PRICE | RELEASE_DATE |
|----------|-----------|-------|--------------|
| 1 | Rockstar | 100 | 24-JAN-03 |
| 2 | Queen | 70 | 19-FEB-11 |
| 3 | Cold Mess | 80 | 12-MAR-15 |
| 4 | Attention | 95 | 27-MAY-05 |
| 5 | Euphoria | 170 | 01-SEP-20 |
| 6 | Drive | 200 | 30-JUN-22 |
| 7 | Kedarnath | 145 | 21-AUG-01 |
| 8 | Believe | 85 | 07-APR-09 |
| 9 | October | 50 | 31-OCT-14 |
| 10 | Midnights | 130 | 13-DEC-89 |

2)Statement-To show only Album name and release from the Album Table

select album_id,release_date from album

Output-

| ALBUM_ID | RELEASE_DATE |
|----------|--------------|
| 1 | 24-JAN-03 |
| 2 | 19-FEB-11 |
| 3 | 12-MAR-15 |
| 4 | 27-MAY-05 |
| 5 | 01-SEP-20 |
| 6 | 30-JUN-22 |
| 7 | 21-AUG-01 |
| 8 | 07-APR-09 |
| 9 | 31-OCT-14 |
| 10 | 13-DEC-89 |

3)Statement-To show all customer names and ids from Rajasthan

select name,customer_id

from customer

where state='Rajasthan';

Output-

| NAME | CUSTOMER_ID |
|----------|-------------|
| Kaushik | 9 |
| Trishala | 15 |

4)Statement-To show name, phone numbers of customers from Mumbai and Maharashtra

```
select name, phone number
```

```
from customer
```

```
where city='Mumbai' and state='Maharashtra';
```

Output-

| NAME | PHONE_NO |
|------|----------|
|------|----------|

| | |
|--------|------------|
| Ishika | 4717657102 |
|--------|------------|

5)Statement-To show name, phone numbers of customers from Maharashtra or Goa

```
select name, phone_no
```

```
from customer
```

```
where state='Goa' or state='Maharashtra';
```

Output-

| NAME | PHONE_NO |
|------|----------|
|------|----------|

| | |
|--------|------------|
| Niyati | 1687657102 |
|--------|------------|

| | |
|------|------------|
| Yash | 1687658152 |
|------|------------|

| | |
|--------|------------|
| Soweda | 1687398102 |
|--------|------------|

| | |
|-------|------------|
| Mehak | 1287658552 |
|-------|------------|

| | |
|--------|------------|
| Ishika | 4717657102 |
|--------|------------|

6)Statement-To show all Albums with price greater than or equal to 100

```
select title,price
```

```
From album
```

```
where price >=100;
```

Output-

| TITLE | PRICE |
|-------|-------|
|-------|-------|

| | |
|----------|-----|
| Rockstar | 100 |
|----------|-----|

| | |
|----------|-----|
| Euphoria | 170 |
|----------|-----|

| | |
|-------|-----|
| Drive | 200 |
|-------|-----|

| | |
|-----------|-----|
| Kedarnath | 145 |
|-----------|-----|

| | |
|-----------|-----|
| Midnights | 130 |
|-----------|-----|

7)Statement-To show all states to which our customers belong

```
select distinct state
```

```
from customer
```

Output-

| STATE |
|-------|
|-------|

| |
|-----------|
| Karnataka |
|-----------|

| |
|-------------|
| Maharashtra |
|-------------|

| |
|---------------|
| Uttar Pradesh |
|---------------|

| |
|-------------------|
| Arunachal Pradesh |
|-------------------|

| |
|-------------|
| West Bengal |
|-------------|

| |
|-----|
| Goa |
|-----|

| |
|---------|
| Kashmir |
|---------|

Sikkim
Rajasthan
Punjab
Kerala
Gujarat
Madhya Pradesh
Telangana
Tamil Nadu

8)Statement-To show album titles in increasing order of their price

```
select album_id,title,price  
From album  
order by price;
```

Output-

| ALBUM_ID | TITLE | PRICE |
|----------|-----------|-------|
| 9 | October | 50 |
| 2 | Queen | 70 |
| 3 | Cold Mess | 80 |
| 8 | Believe | 85 |
| 4 | Attention | 95 |
| 1 | Rockstar | 100 |
| 10 | Midnights | 130 |
| 7 | Kedarnath | 145 |
| 5 | Euphoria | 170 |
| 6 | Drive | 200 |

9a)Statement- Retrieve all the information (all columns) from the customer table for rows where the name starts with the letters 'Ri'.

```
select * from customer where name like 'Ri%'
```

Output:

| CUSTOMER_ID | NAME | PHONE_NO | PIN | CITY | STATE |
|-------------|---------|------------|--------|-----------|-----------|
| 1 | Rittika | 1687658102 | 400703 | Bangalore | Karnataka |

9b)Statement-Retrieve all the information (all columns) from the customer table for rows where the name starts with the letter 'Y'.

```
select * from customer where name like 'Y%'
```

Output:

| CUSTOMER_ID | NAME | PHONE_NO | PIN | CITY | STATE |
|-------------|------|------------|--------|------------|-------------|
| 6 | Yash | 1687658152 | 411703 | Ulhasnagar | Maharashtra |

10) Statement-UNION

CUSTOMER1:

| CUSTOMER_ID1 | NAME1 | PHONE_NO1 | PIN1 | CITY1 | STATE1 |
|--------------|----------|------------|--------|------------|-------------------|
| 5 | Tanishqa | 1287658102 | 408703 | Hyderabad | Telangana |
| 7 | Soweda | 1687398102 | 490703 | Vasco | Goa |
| 12 | Mehak | 1287658552 | 404703 | Pune | Maharashtra |
| 13 | Ananya | 1682167152 | 417803 | Chennai | Tamil Nadu |
| 14 | Simran | 6547398102 | 490903 | Kochi | Kerala |
| 2 | Niyati | 1687657102 | 500703 | Panjim | Goa |
| 10 | Ujjwal | 2687777102 | 467706 | Kolkata | West Bengal |
| 11 | Jagjeet | 1687645162 | 423307 | Amritsar | Punjab |
| 1 | Rittika | 1687658102 | 400703 | Bangalore | Karnataka |
| 3 | Parth | 2687658102 | 400706 | Mangalore | Karnataka |
| 4 | Shruti | 1687658162 | 400307 | Srinagar | Kashmir |
| 9 | Kaushik | 1683457102 | 543703 | Kota | Rajasthan |
| 18 | Vivek | 1686780162 | 805307 | Surat | Gujarat |
| 6 | Yash | 1687658152 | 411703 | Ulhasnagar | Maharashtra |
| 8 | Mohib | 1687435102 | 403403 | Gangtok | Sikkim |
| 19 | Om | 7757658102 | 218703 | Meghalaya | Arunachal Pradesh |
| 20 | Hamza | 2187658152 | 441703 | Indore | Madhya Pradesh |

CUSTOMER2:

| CUSTOMER_ID2 | NAME2 | PHONE_NO2 | PIN2 | CITY2 | STATE2 |
|--------------|----------|------------|--------|-----------|-------------------|
| 16 | Ishika | 4717657102 | 910703 | Mumbai | Maharashtra |
| 17 | Uditi | 2687663202 | 423706 | Lucknow | Uttar Pradesh |
| 18 | Vivek | 1686780162 | 805307 | Surat | Gujarat |
| 15 | Trishala | 9988658102 | 670703 | Jaipur | Rajasthan |
| 19 | Om | 7757658102 | 218703 | Meghalaya | Arunachal Pradesh |
| 20 | Hamza | 2187658152 | 441703 | Indore | Madhya Pradesh |

SELECT * FROM customer1

UNION

SELECT * FROM customer2;

Output:

| CUSTOMER_ID1 | NAME1 | PHONE_NO1 | PIN1 | CITY1 | STATE1 |
|--------------|----------|------------|--------|------------|-------------|
| 1 | Rittika | 1687658102 | 400703 | Bangalore | Karnataka |
| 2 | Niyati | 1687657102 | 500703 | Panjim | Goa |
| 3 | Parth | 2687658102 | 400706 | Mangalore | Karnataka |
| 4 | Shruti | 1687658162 | 400307 | Srinagar | Kashmir |
| 5 | Tanishqa | 1287658102 | 408703 | Hyderabad | Telangana |
| 6 | Yash | 1687658152 | 411703 | Ulhasnagar | Maharashtra |
| 7 | Soweda | 1687398102 | 490703 | Vasco | Goa |
| 8 | Mohib | 1687435102 | 403403 | Gangtok | Sikkim |

| | | | | | |
|----|----------|------------|--------|-----------|-------------------|
| 9 | Kaushik | 1683457102 | 543703 | Kota | Rajasthan |
| 10 | Ujjwal | 2687777102 | 467706 | Kolkata | West Bengal |
| 11 | Jagjeet | 1687645162 | 423307 | Amritsar | Punjab |
| 12 | Mehak | 1287658552 | 404703 | Pune | Maharashtra |
| 13 | Ananya | 1682167152 | 417803 | Chennai | Tamil Nadu |
| 14 | Simran | 6547398102 | 490903 | Kochi | Kerala |
| 15 | Trishala | 9988658102 | 670703 | Jaipur | Rajasthan |
| 16 | Ishika | 4717657102 | 910703 | Mumbai | Maharashtra |
| 17 | Uditi | 2687663202 | 423706 | Lucknow | Uttar Pradesh |
| 18 | Vivek | 1686780162 | 805307 | Surat | Gujarat |
| 19 | Om | 7757658102 | 218703 | Meghalaya | Arunachal Pradesh |
| 20 | Hamza | 2187658152 | 441703 | Indore | Madhya Pradesh |

11) Statement-Intersection

```
SELECT * FROM customer1
INTERSECT
SELECT * FROM customer2;
```

Output:

| CUSTOMER_ID1 | NAME1 | PHONE_NO1 | PIN1 | CITY1 | STATE1 |
|--------------|-------|------------|--------|-----------|-------------------|
| 18 | Vivek | 1686780162 | 805307 | Surat | Gujarat |
| 19 | Om | 7757658102 | 218703 | Meghalaya | Arunachal Pradesh |
| 20 | Hamza | 2187658152 | 441703 | Indore | Madhya Pradesh |

12) Statement-Except

```
CREATE TABLE Books1
(
    id INT,
    name VARCHAR(50) NOT NULL,
    category VARCHAR(50) NOT NULL,
    price INT NOT NULL
)
```

```
CREATE TABLE Books2
(
    id INT,
    name VARCHAR(50) NOT NULL,
    category VARCHAR(50) NOT NULL,
    price INT NOT NULL
)
INSERT INTO Books1
VALUES
(1, 'Book1', 'Cat1', 1800),
(2, 'Book2', 'Cat2', 1500),
(3, 'Book3', 'Cat3', 2000),
```

(4, 'Book4', 'Cat4', 1300),
(5, 'Book5', 'Cat5', 1500),
(6, 'Book6', 'Cat6', 5000),
(7, 'Book7', 'Cat7', 8000),
(8, 'Book8', 'Cat8', 5000),
(9, 'Book9', 'Cat9', 5400),
(10, 'Book10', 'Cat10', 3200)

INSERT INTO Books2

VALUES

(6, 'Book6', 'Cat6', 5000),
(7, 'Book7', 'Cat7', 8000),
(8, 'Book8', 'Cat8', 5000),
(9, 'Book9', 'Cat9', 5400),
(10, 'Book10', 'Cat10', 3200),
(11, 'Book11', 'Cat11', 5000),
(12, 'Book12', 'Cat12', 8000),
(13, 'Book13', 'Cat13', 5000),
(14, 'Book14', 'Cat14', 5400),
(15, 'Book15', 'Cat15', 3200)

SELECT id, name, category, price FROM Books1

Except

SELECT id, name, category, price FROM Books2

Output:

id name category price

1 Book1 Cat1 1800
2 Book2 Cat2 1500
3 Book3 Cat3 2000
4 Book4 Cat4 1300
5 Book5 Cat5 1500

13)Statement-Retrieve the minimum value of the price column from the album table."

select min(price) from album

Output:

MIN(PRICE)

50

14)Statement-.Retrieve the maximum value of the price column from the album table."

select max(price) from album

Output:

MAX(PRICE)

200

15).Statement-Retrieve the average value of the price column from the album table."

select avg(price) from album

Output:

AVG(PRICE)

112.5

16) Retrieve the sum of playtime of all songs from column playtime from table song

Input: SELECT SUM(playtime) FROM song;

Output:

SUM(PLAYTIME)

9970

17). Retrieve the count of songs through song id variable from song table

Input: SELECT COUNT(song_id) FROM song;

Output:

COUNT(SONG_ID)

50

18a)Statement-To display how many songs are there in each category

select count(s_id) as Number_of_songs,category

from genre

group by category;

Output-

| NUMBER_OF_SONGS | CATEGORY |
|-----------------|----------|
|-----------------|----------|

| | |
|----|------|
| 10 | Rock |
|----|------|

| | |
|----|------|
| 10 | Jazz |
|----|------|

| | |
|----|-----|
| 10 | Pop |
|----|-----|

| | |
|----|-------|
| 10 | Metal |
|----|-------|

| | |
|----|-------|
| 10 | Blues |
|----|-------|

18b)Statement-To display how many people are there from each State

select count(customer_id) as people_from,state

from customer

group by state;

Output-

| PEOPLE_FROM | STATE |
|-------------|-------|
|-------------|-------|

| | |
|---|-----------|
| 2 | Karnataka |
|---|-----------|

| | |
|---|-------------|
| 3 | Maharashtra |
|---|-------------|

| | |
|---|---------------|
| 1 | Uttar Pradesh |
|---|---------------|

| | |
|---|-------------------|
| 1 | Arunachal Pradesh |
|---|-------------------|

| | |
|---|-------------|
| 1 | West Bengal |
|---|-------------|

| | |
|---|-----|
| 2 | Goa |
|---|-----|

| | |
|---|---------|
| 1 | Kashmir |
|---|---------|

| | |
|---|--------|
| 1 | Sikkim |
|---|--------|

| | |
|---|-----------|
| 2 | Rajasthan |
|---|-----------|

| | |
|---|----------------|
| 1 | Punjab |
| 1 | Kerala |
| 1 | Gujarat |
| 1 | Madhya Pradesh |
| 1 | Telangana |
| 1 | Tamil Nadu |

19) Statement-To show number of songs in all albums with id>5

```
select count(song_title),a_id
from song
group by a_id
having a_id>5;
```

Output-

| SONGS_IN | A_ID |
|----------|------|
| 6 | 6 |
| 5 | 7 |
| 4 | 8 |
| 2 | 10 |
| 4 | 9 |

20a) Statement-To show tuples where no pin code is entered,no city is entered

```
insert into customer(customer_id ,name,phone_no,city,state)
values(21,'Huzefa',441743023,'Indore','Madhya Pradesh')
select * from customer where pin is NULL
```

Output:

| CUSTOMER_ID | NAME | PHONE_NO | PIN | CITY | STATE |
|-------------|--------|-----------|-----|--------|----------------|
| 21 | Huzefa | 441743023 | - | Indore | Madhya Pradesh |

Statement-To show tuples where no city is entered

```
insert into customer(customer_id ,name,phone_no,pin,state)
values(22,'Huzef',441743023,12345,'Madhya Pradesh')
select * from customer where city is NULL
```

Output:

| CUSTOMER_ID | NAME | PHONE_NO | PIN | CITY | STATE |
|-------------|-------|-----------|-------|------|----------------|
| 22 | Huzef | 441743023 | 12345 | - | Madhya Pradesh |