Task :[User defined functions]

Consider the Country table and Persons table that you have created earlier and perform the following:

1. Add a new column called DOB in Persons table with datatype as Date.
2. Write a user defined function to calculate age using DOB.
3. Write a select query to fetch Age of all persons reusing the function that has been created

```
delimiter $$
create function age (DOB DATE)
    returns int deterministic
    begin
        return year(sysdate()) - year(dob);
    end $$
delimiter ;

select age(dob) as AGE from persons;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Co

AGE
22
23
24
25
26
27
28
29
30
31

Result 4

Task :[Subqueries]

Consider the Country table and Persons table that you have created earlier and perform the following:

1. Find the number of persons in each country.
2. Find the number of persons in each country sorted high to low.

```
17 •  SELECT country_name, COUNT(*) AS count FROM persons group by country_name order by count;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

country_name	count
India	1
China	1
Srilanka	1
Afganistan	1
Australia	1
West Indies	1
Asia	1
Southafrica	2
Pakistan	3

3.Find out average rating for Persons in respective countries if average is greater than 3.0

```
19 •  select country_name, avg(rating) as AVG_Rating from persons group by
20    country_name having avg(rating) > 3.0 order by AVG_Rating;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

country_name	AVG_Rating
West Indies	12.0000
Southafrica	13.0000
Pakistan	13.6667
Srilanka	15.0000
China	18.0000
Australia	18.0000
Afganistan	19.0000
Asia	149.0000
India	150.0000

4. Find the countries with same rating as pakistan.(Use Subqueries)

```
select country_name from persons where rating = (select
rating from persons where country_name = 'China');
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

country_name
China
Australia

5. Select all countries whose population is greater than the average population of all countries

```
select country_name from country where population > (select
avg(population) from country group by country_name limit 1);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

country_name
China
Srilanka

1)Create a view named customer_info for Customer table that displays Customer's Full name and email address. Then perform SELECT operation for customer_info view.

```
create view customer_info as
select concat(First_name," ",Last_name) as Full_Name, Email from customer;
select * from customer_info;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Full_Name	Email
FNAME1 SNAME1	MAIL1@GMAIL.COM
FNAME2 SNAME2	MAIL2@GMAIL.COM
FNAME3 SNAME3	MAIL3@GMAIL.COM
FNAME4 SNAME4	MAIL4@GMAIL.COM
FNAME5 SNAME5	MAIL5@GMAIL.COM
FNAME6 SNAME6	MAIL6@GMAIL.COM
FNAME7 SNAME7	MAIL7@GMAIL.COM
FNAME8 SNAME8	MAIL8@GMAIL.COM
FNAME9 SNAME9	MAIL9@GMAIL.COM
FNAME10 SNAME10	MAIL10@GMAIL.COM

2) Create a view named US_Customers that displays customers located in US.

```
create view US_Customers as
select * from customer  where Country = 'US';
select * from US_Customers;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Customer_Id	First_name	Last_name	Email	Phone_no	Address	City	State	Zip_code	Coun
1	FNAME1	SNAME1	MAIL1@GMAIL.COM	1234567891	ADDRESS1	CITY1	STATE1	12341	US
2	FNAME2	SNAME2	MAIL2@GMAIL.COM	1234567892	ADDRESS2	CITY2	STATE2	12342	US
6	FNAME6	SNAME6	MAIL6@GMAIL.COM	1234567896	ADDRESS6	CITY6	STATE6	12346	US

3) Create another view named Customer_details with columns full name(Combine first_name and last_name), email and phone_no

```
create view Customer_details as
select concat(First_name," ",Last_name) as Full_Name,Email,Phone_no,State from customer;
select * from Customer_details;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Full_Name	Email	Phone_no	State
FNAME1 SNAME1	MAIL1@GMAIL.COM	1234567891	STATE1
FNAME2 SNAME2	MAIL2@GMAIL.COM	1234567892	STATE2
FNAME3 SNAME3	MAIL3@GMAIL.COM	1234567893	STATE3
FNAME4 SNAME4	MAIL4@GMAIL.COM	1234567894	STATE4
FNAME5 SNAME5	MAIL5@GMAIL.COM	1234567895	STATE5
FNAME6 SNAME6	MAIL6@GMAIL.COM	1234567896	STATE6
FNAME7 SNAME7	MAIL7@GMAIL.COM	1234567897	STATE7
FNAME8 SNAME8	MAIL8@GMAIL.COM	1234567898	STATE8
FNAME9 SNAME9	MAIL9@GMAIL.COM	1234567899	STATE9
FNAME10 SNAME10	MAIL10@GMAIL.COM	1234567810	STATE10

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4) Update phone numbers of customers who live in STATE7 for Customer_details view.

```
set sql_safe_updates = 0;
update Customer_details set Phone_no = '1234567811'
where State = 'STATE7';
```

Result Grid | Filter Rows: | Export: | Wrap Cell Co

Full_Name	Email	Phone_no	State
FNAME1 SNAME1	MAIL1@GMAIL.COM	1234567891	STATE1
FNAME2 SNAME2	MAIL2@GMAIL.COM	1234567892	STATE2
FNAME3 SNAME3	MAIL3@GMAIL.COM	1234567893	STATE3
FNAME4 SNAME4	MAIL4@GMAIL.COM	1234567894	STATE4
FNAME5 SNAME5	MAIL5@GMAIL.COM	1234567895	STATE5
FNAME6 SNAME6	MAIL6@GMAIL.COM	1234567896	STATE6
FNAME7 SNAME7	MAIL7@GMAIL.COM	1234567811	STATE7
FNAME8 SNAME8	MAIL8@GMAIL.COM	1234567898	STATE8
FNAME9 SNAME9	MAIL9@GMAIL.COM	1234567899	STATE9
FNAME10 SNAME10	MAIL10@GMAIL.COM	1234567810	STATE10

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5)Count the number of customers in each state and show only country that have more than 3 customers

```
select country from customer
group by country
having count(*) > 3;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

country
UK

6)Write a query that will return the number of customers in each country, based on the "country" column in the "customer_details" view

```
select state, count(*) as Customer_Count
from Customer_details
group by state;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

State	Customer_Count
STATE1	1
STATE2	1
STATE3	1
STATE4	1
STATE5	1
STATE6	1
STATE7	1
STATE8	1
STATE9	1
STATE10	1

Result 7

Output

7)Write a query that return all the columns from the "customer_details" view, sorted by the "state" column in ascending order

```
69 •    select * from Customer_details order by state;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Full_Name	Email	Phone_no	State
FNAME1 SNAME1	MAIL1@GMAIL.COM	1234567891	STATE1
FNAME10 SNAME10	MAIL10@GMAIL.COM	1234567810	STATE10
FNAME2 SNAME2	MAIL2@GMAIL.COM	1234567892	STATE2
FNAME3 SNAME3	MAIL3@GMAIL.COM	1234567893	STATE3
FNAME4 SNAME4	MAIL4@GMAIL.COM	1234567894	STATE4
FNAME5 SNAME5	MAIL5@GMAIL.COM	1234567895	STATE5
FNAME6 SNAME6	MAIL6@GMAIL.COM	1234567896	STATE6
FNAME7 SNAME7	MAIL7@GMAIL.COM	1234567811	STATE7
FNAME8 SNAME8	MAIL8@GMAIL.COM	1234567898	STATE8
FNAME9 SNAME9	MAIL9@GMAIL.COM	1234567899	STATE9

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