```
create database sql_assignment; #creating database
use sql_assignment; #using database
SET SQL_SAFE_UPDATES = 0; #removing safe mode as I am using SQL workbench
#Solution 1
#creating table for question 1
create table if not exists salesorder(
  ord_no int,
purch_amt DOUBLE,
ord_date date,
  customer_id int,
  salesman_id int );
#Insering data into salesorder table
insert into salesorder values(70001, 150.5, '2012-10-05', 3005, 5002);
insert into salesorder values(70009, 270.65, '2012-09-10', 3001, 5005);
insert into salesorder values(70002, 65.26, '2012-10-05', 3002, 5001);
insert into salesorder values(70004, 110.5, '2012-08-17', 3009, 5003);
insert into salesorder values (70007, 948.5, '2012-09-10', 3005, 5002);
insert into salesorder values(70005, 2400.6, '2012-07-27', 3007, 5001);
insert into salesorder values(70008, 5760, '2012-09-10', 3002, 5001);
insert into salesorder values(70010, 1983.43, '2012-10-10', 3004, 5006);
insert into salesorder values(70003, 2480.4, '2012-10-10', 3009, 5003);
insert into salesorder values(70012, 250.45, '2012-06-27', 3008, 5002);
insert into salesorder values(70011, 75.29, '2012-08-17', 3003, 5007);
insert into salesorder values(70013, 3045.6, '2012-04-25', 3002, 5001);
#this is the solution query:
select ord_date as order_date, salesman_id as salesman_ID, ord_no as order_number, purch_amt as
purchase_amount
from salesorder
```

order by ord_date; # we can order it by anything but it was not mentioned in the question,

so I am doing the sort based on order date

order_date	salesman_ID	order_number	purchase_amount
2012-04-25	5001	70013	3045.6
2012-06-27	5002	70012	250.45
2012-07-27	5001	70005	2400.6
2012-08-17	5003	70004	110.5
2012-08-17	5007	70011	75.29
2012-09-10	5005	70009	270.65
2012-09-10	5002	70007	948.5
2012-09-10	5001	70008	5760
2012-10-05	5002	70001	150.5
2012-10-05	5001	70002	65.26
2012-10-10	5006	70010	1983.43
2012-10-10	5003	70003	2480.4

#Solution 2:

```
create table if not exists salespeople(
    salesman_id int,
name VARCHAR(100),
city VARCHAR(100),
commission DOUBLE);
insert into salespeople values(5001, 'James Hoog', 'New York', 0.15);
insert into salespeople values(5002, 'Nail Knite', 'Paris', 0.13);
insert into salespeople values(5005, 'Pit Alex', 'London', 0.11);
insert into salespeople values(5006, 'Mc Lyon', 'Paris', 0.14);
insert into salespeople values(5007, 'Paul Adam', 'Rome', 0.13);
insert into salespeople values(5003, 'Lauson Hen', 'San Jose', 0.12);
select name as Sales_person_name, city
from salespeople
where city = 'Paris';
```

city

Paris

Paris

Sales_person_name

Nail Knite

Mc Lyon

#Solution 3

```
create table if not exists product(
PRO_ID int,

PRO_NAME VARCHAR(100),

PRO_PRICE DOUBLE,

PRO_COM int );
```

insert into product values(101, 'Motherboard', 3200.00, 15); insert into product values(102, 'Keyboard', 450.00, 16); insert into product values(103, 'ZIP drive', 250.00, 14); insert into product values(104, 'Speaker', 550.00, 16); insert into product values(105, 'Monitor', 5000.00, 11); insert into product values(106, 'DVD drive', 900.00, 12); insert into product values(107, 'CD drive', 800.00, 12); insert into product values(108, 'Printer', 2600.00, 13); insert into product values(109, 'Refill cartridge', 350.00, 13); insert into product values(110, 'Mouse', 250.00, 12);

select PRO_ID, PRO_NAME, PRO_PRICE, PRO_COM from product where PRO_PRICE BETWEEN 200 AND 600;

PRO_ID	PRO_NAME	PRO_PRICE	PRO_COM
102	Keyboard	450	16
103	ZIP drive	250	14
104	Speaker	550	16
109	Refill cartridge	350	13
110	Mouse	250	12

#SOLUTION 4

select PRO_NAME,PRO_PRICE

from product

where PRO_PRICE >= 550

order by PRO_PRICE DESC,PRO_NAME;

PRO_NAME	PRO_PRICE
Monitor	5000
Motherboard	3200
Printer	2600
DVD drive	900
CD drive	800
Speaker	550

#SOLUTION 5

 ${\tt SELECT\ ord_no,\ purch_amt,\ ord_date,\ customer_id\ ,salesman_id}$

FROM salesorder

where ord_date != '2012-09-10'

and (salesman_id > 5005 or purch_amt >1000)

order by salesman_id;

ord_no	purch_amt	ord_date	customer_id	salesman_id
70005	2400.6	2012-07-27	3007	5001
70013	3045.6	2012-04-25	3002	5001
70003	2480.4	2012-10-10	3009	5003
70010	1983.43	2012-10-10	3004	5006
70011	75.29	2012-08-17	3003	5007

#Solution 6

create table if not exists world(

name VARCHAR(100),

continent VARCHAR(100),

area DOUBLE,

population DOUBLE,

gdp DOUBLE

);

```
insert into world values('Afghanistan', 'Asia', 652230, 25500100, 20343000000);
insert into world values('Albania', 'Europe', 28748, 2831741, 12960000000);
insert into world values('Algeria', 'Africa', 2381741, 37100000, 188681000000);
insert into world values('Andorra', 'Europe', 468, 78115, 3712000000);
insert into world values('Angola', 'Africa', 1246700, 20609294, 100990000000);
insert into world values ('Dominican Republic', 'Caribbean', 48671, 9445281, 58898000000);
insert into world values('China', 'Asia', 9596961, 1365370000, 8358400000000);
insert into world values('Colombia', 'South America', 1141748, 47662000, 369813000000);
insert into world values('Comoros', 'Africa', 1862, 743798, 616000000);
insert into world values('Denmark', 'Europe', 43094, 5634437, 314889000000);
insert into world values('Djibouti', 'Africa', 23200, 886000, 1361000000);
insert into world values('Dominica', 'Caribbean', 751, 71293, 499000000);
1. Select name from world order by population desc limit 1;
      name
     China
2. Select name from world order by gdp limit 1;
    name
    Dominica
3. Select name from world
 WHERE name LIKE '%C';
      name
      Dominican Republic
4. Select name from world
 WHERE name LIKE 'D%';
    name
   Dominican Republic
   Denmark
   Djibouti
   Dominica
```

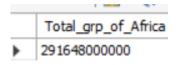
5. Select continent from world order by gdp desc limit 1;



6. Select SUM(gdp) as Total_grp_of_Africa

FROM world

WHERE continent = 'Africa';



7. Select continent, sum (population) as total_population_by_continent

FROM world

group by continent;

continent	total_population_by_continent
Asia	1390870100
Europe	8544293
Africa	59339092
Caribbean	9516574
South America	47662000

8. Select continent, COUNT(name) as number_of_countries_having_more_than_2_billion_population

FROM world

where population >=200000000

group by continent;

	continent	number_of_countries_having_more_than_2_billion
•	Asia	1

#Soulution 7

1.

2.

select s.student_name,c.course_name,c.marks as third_highest_mark

from

(select student_id,course_name,marks, row_number() over(partition by course_name order by marks desc) as third highest mark from course group by course name,marks)c

inner join (select student_id,student_name,row_number() over(partition by student_id) as st from students group by student_id)s

on c.student_id=s.student_id where c.third_highest_mark=3;

	student_name	course_name	third_highest_mark
•	Aayush	Computer vision	39
	Sanvi	Dataanalyst	78
	Pavi	Datascience	78

3.

select s.student_name,c.course_name,c.marks as minimum_mark

from

(select student_id,course_name,marks, row_number() over(partition by course_name order by marks) as minimum_mark from course_group by course_name,marks)c

inner join (select student_id,student_name,row_number() over(partition by student_id) as st from students group by student_id)s

on c.student_id=s.student_id where c.minimum_mark=1;

	student_name	course_name	minimum_mark
١	Aayush	Computer vision	39
	Ethan	Dataanalyst	50
	John Doe	Datascience	45

4.

select s.student_name,c.course_name,c.marks as fourth_least_mark

from

(select student_id,course_name,marks, row_number() over(partition by course_name order by marks desc) as fourth_least_mark from course_group by course_name,marks)c

inner join (select student_id,student_name,row_number() over(partition by student_id) as st from students group by student_id)s

on c.student_id=s.student_id where c.fourth_least_mark=4;

	student_name	course_name	fourth_least_mark
•	Ethan	Dataanalyst	50
	John Doe	Datascience	75

5.

6.

select city,count(city) as count_of_each_city from students group by city;

	city	count_of_each_city
•	Delhi	6
	Rajasthan	2
	Bangalore	4
	Bihar	4

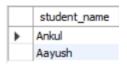
7.

select city, GROUP_CONCAT(student_name) as students_from_same_city from students group by city;

	city	students_from_same_city
Þ	Bangalore	Jessie, Johnnie, Navyaa, Aayush
Bihar Benbrook,Ethan,Ankul,Hitanshi Delhi John Doe,John Doe,Goh,Pavi,Ria Rajasthan Moon ethan,Sanvi		Benbrook, Ethan, Ankul, Hitanshi
		John Doe, John Doe, Goh, Pavi, Rian, John Doe
		Moon ethan,Sanvi

8.

select student_name from students where student_name like'A%';



9.

10.

select count(student_name), city from students group by city;

	count(student_name)	city
٠	6	Delhi
	2	Rajasthan
	4	Bangalore
	4	Bihar

#Soulution 8

create table activity(player_id int,device_id int,event_date date,games_played int ,PRIMARY KEY (player_id, event_date));

insert into activity values(1,2,'2016-03-01',5),

(1,2,'2016-05-02',6),

(2,3,'2017-06-25',1),

(3,1,'2016-03-02',0),

(3,4,'2018-07-03',5);

select a.player_id,a.event_date as first_login

from(select *, row_number()over(partition by player_id order by event_date) as first_login from activity) a

where a.first_login=1;

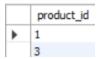
	player_id	first_login
•	1	2016-03-01
	2	2017-06-25
	3	2016-03-02

#Soulution 9

create table products(product_id int NOT NULL,

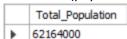
low_fats enum('Y','N'),recyclable enum('Y','N'),PRIMARY KEY (product_id));

insert into products values(0,'Y','N'),(1,'Y','Y'),(2,'N','Y'),(3,'Y','Y'),(4,'N','N'); select product_id from products where low_fats='Y' and recyclable='Y';

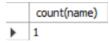


#Soulution 10,

1. select sum(population) as Total_Population from world1;



2. select count(name) from world1 where population<=150000 group by name;



3. ,4. ,5. ,6., and 7 has been skipped due to insufficient data and question is not clear at all (looks like mcq type questions with missing options).