

```
SQL> SET LINESIZE 200;
SQL> SET PAGESIZE 20;
SQL>
SQL> -- Question 1
SQL>
SQL> CREATE TABLE Agent(agent_code varchar2(5), agent_name varchar2(10), working_area varchar2(15), commision number(2,2), phone_no varchar2(10), country varchar2(10),
2 CONSTRAINT Agent_pk PRIMARY KEY(agent_code));
```

Table created.

```
SQL> CREATE TABLE Orders(ord_num varchar2(3), ord_amount number, advance_amount number, ord_date date, cust_code varchar(4), agent_code varchar(5), description varchar(20),
2 CONSTRAINT Orders_fk FOREIGN KEY(agent_code) REFERENCES Agent(agent_code), CONSTRAINT Orders_pk PRIMARY KEY(ord_num));
```

Table created.

```
SQL> INSERT ALL
2 INTO Agent(agent_code, agent_name, working_area, commision, phone_no, country) VALUES ('Ac001','Ramesh','Bangalore',.15,'0331234567','India')
3 INTO Agent(agent_code, agent_name, working_area, commision, phone_no, country) VALUES ('Ac002','Dinesh','Bangalore',.25,'0331234568','India')
4 INTO Agent(agent_code, agent_name, working_area, commision, phone_no, country) VALUES ('Ac003','Suresh','Mumbai',.35,'0331234569','London')
5 INTO Agent(agent_code, agent_name, working_area, commision, phone_no, country) VALUES ('Ac004','Kamlesh','New Jersey',.68,'0331234564','London')
6 INTO Agent(agent_code, agent_name, working_area, commision, phone_no, country) VALUES ('Ac005','Kartik','Chennai',.73,'0331234563','India')
7 SELECT * FROM dual;
```

5 rows created.

```
SQL> INSERT ALL
2 INTO Orders(ord_num, ord_amount, advance_amount, ord_date, cust_code, agent_code, description) VALUES ('004', 200, 3000, '15-aug-2020', 'C004', 'Ac001', 'Masala Kulcha')
3 INTO Orders(ord_num, ord_amount, advance_amount, ord_date, cust_code, agent_code, description) VALUES ('007', 600, 5000, '17-sep-2020', 'C006', 'Ac003', 'Biriyanis')
4 INTO Orders(ord_num, ord_amount, advance_amount, ord_date, cust_code, agent_code, description) VALUES ('008', 700, 100, '19-feb-2019', 'C007', 'Ac005', NULL)
5 INTO Orders(ord_num, ord_amount, advance_amount, ord_date, cust_code, agent_code, description) VALUES ('009', 10000, 600, '21-mar-2010', 'C009', 'Ac004', 'Masala Dosa')
6 INTO Orders(ord_num, ord_amount, advance_amount, ord_date, cust_code, agent_code, description) VALUES ('010', 20, 600, '21-apr-2012', 'C006', 'Ac005', NULL)
7 SELECT * FROM dual;
```

5 rows created.

```
SQL>
SQL> SELECT * FROM Agent;
```

AGENT	AGENT_NAME	WORKING_AREA	COMMISSION	PHONE_NO	COUNTRY
Ac001	Ramesh	Bangalore	.15	0331234567	India
Ac002	Dinesh	Bangalore	.25	0331234568	India
Ac003	Suresh	Mumbai	.35	0331234569	London
Ac004	Kamlesh	New Jersey	.68	0331234564	London
Ac005	Kartik	Chennai	.73	0331234563	India

```
SQL> SELECT * FROM Orders;
```

ORD	ORD_AMOUNT	ADVANCE_AMOUNT	ORD_DATE	CUST	AGENT	DESCRIPTION
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Ac005 Kartik Chennai .73 0331234563 India

SQL> SELECT * FROM Orders;

ORD	ORD_AMOUNT	ADVANCE_AMOUNT	ORD_DATE	CUST	AGENT	DESCRIPTION
004	200	3000	15-AUG-20	C004	Ac001	Masala Kulcha
007	600	5000	17-SEP-20	C006	Ac003	Biriyani
008	700	100	19-FEB-19	C007	Ac005	
009	10000	600	21-MAR-10	C009	Ac004	Masala Dosa
010	20	600	21-APR-12	C006	Ac005	

SQL>
SQL> SELECT ord_num, ord_amount, ord_date, cust_code, agent_code FROM Orders WHERE agent_code IN
2 (SELECT agent_code FROM Agent WHERE
3 country IN (SELECT country FROM Agent GROUP BY country HAVING count(country)>1)
4 OR
5 working_area IN (SELECT working_area FROM Agent GROUP BY working_area HAVING count(working_area)>1));

ORD	ORD_AMOUNT	ORD_DATE	CUST	AGENT
004	200	15-AUG-20	C004	Ac001
007	600	17-SEP-20	C006	Ac003
008	700	19-FEB-19	C007	Ac005
009	10000	21-MAR-10	C009	Ac004
010	20	21-APR-12	C006	Ac005

SQL>
SQL> SELECT ord_num, ord_amount, cust_code, agent_code FROM orders WHERE
2 agent_code IN (SELECT agent_code FROM agent WHERE agent_code IN
3 (SELECT agent_code FROM agent WHERE agent.agent_code=orders.agent_code and agent_name like '%a%')
4 and
5 working_area not in(SELECT working_area FROM agent group by working_area having count(working_area)>1));

ORD	ORD_AMOUNT	CUST	AGENT
008	700	C007	Ac005
009	10000	C009	Ac004
010	20	C006	Ac005

SQL>
SQL> DROP TABLE Orders;

Table dropped.

SQL> DROP TABLE Agent;

Table dropped.

SQL>


```
SQL>
SQL> -- Question 2
SQL>
SQL> CREATE TABLE employees(employee_id number(3,0), first_name varchar(10), last_name varchar(10), email varchar(15), phone_number varchar(10), hire_date date, job_id varchar(5), salary number, manager_id number, department_id number,
2 CONSTRAINT Employee_pk PRIMARY KEY(employee_id));
```

Table created.

```
SQL>
SQL> INSERT ALL
2 INTO employees(employee_id, first_name, last_name, email, phone_number, hire_date, job_id, salary, manager_id, department_id) VALUES (700, 'Hasmukh', 'Patel', 'hp@gmail.com', '7003216160','15-aug-2020',
'Hp003', 7000, NULL, 90)
3 INTO employees(employee_id, first_name, last_name, email, phone_number, hire_date, job_id, salary, manager_id, department_id) VALUES (800, 'Kamlesh', 'Paul', 'kp@gmail.com', '7003216170','17-feb-2020',
'Kp004', 8000, 506, 90)
4 INTO employees(employee_id, first_name, last_name, email, phone_number, hire_date, job_id, salary, manager_id, department_id) VALUES (900, 'Dinesh', 'Gandhi', 'dp@yahoo', '9136278563','19-mar-2101', 'Dg0
06', 20000, 508, 80)
5 INTO employees(employee_id, first_name, last_name, email, phone_number, hire_date, job_id, salary, manager_id, department_id) VALUES (701, 'Suresh', 'Modi', 'sm@dg.com', '9187653294','20-apr-2015', 'Sm00
9', 15000, NULL, 80)
6 SELECT 1 from dual;
```

4 rows created.

```
SQL>
SQL> SELECT * FROM employees;
```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMB	HIRE_DATE	JOB_I	SALARY	MANAGER_ID	DEPARTMENT_ID
700	Hasmukh	Patel	hp@gmail.com	7003216160	15-AUG-20	Hp003	7000		90
800	Kamlesh	Paul	kp@gmail.com	7003216170	17-FEB-20	Kp004	8000	506	90
900	Dinesh	Gandhi	dp@yahoo	9136278563	19-MAR-01	Dg006	20000	508	80
701	Suresh	Modi	sm@dg.com	9187653294	20-APR-15	Sm009	15000		80

```
SQL>
SQL> SELECT employee_id, manager_id, first_name, last_name FROM employees WHERE
2 manager_id is NULL
3 AND
4 salary<(SELECT avg(salary) FROM employees WHERE last_name LIKE 'P%');
```

EMPLOYEE_ID	MANAGER_ID	FIRST_NAME	LAST_NAME
700		Hasmukh	Patel

```
SQL>
SQL> DROP TABLE employees;
```

Table dropped.

```
SQL>
```



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SQL>
SQL> CREATE TABLE salesman(salesman_id varchar(8), name varchar(15),city varchar(15),commission float,
2 CONSTRAINT salesman_pk PRIMARY KEY(salesman_id));

Table created.

SQL> CREATE TABLE Orders(ord_no number, purch_amt number, ord_date date, customer_id varchar(5), salesman_id varchar(8),
2 CONSTRAINT Orders_fk FOREIGN KEY(salesman_id) REFERENCES salesman(salesman_id) ON DELETE SET NULL, CONSTRAINT Orders_pk PRIMARY KEY(ord_no));

Table created.
```

```
SQL> INSERT ALL
2 INTO salesman(salesman_id, name ,city ,commission ) VALUES ('si123@06', 'Lakshmi', 'Kolkata', .5)
3 INTO salesman(salesman_id, name ,city ,commission ) VALUES ('si123@09', 'Ganesh', 'London', .6)
4 INTO salesman(salesman_id, name ,city ,commission ) VALUES ('si123@90', 'Dinesh', 'London', .3)
5 INTO salesman(salesman_id, name ,city ,commission ) VALUES ('si123@10', 'Joseph', 'Chennai', .6)
6 INTO salesman(salesman_id, name ,city ,commission ) VALUES ('si123@19', 'Mahesh', 'Chennai', .65)
7 INTO salesman(salesman_id, name ,city ,commission ) VALUES ('si123@26', 'Paul Adam', 'London', .1)
8 INTO salesman(salesman_id, name ,city ,commission ) VALUES ('si123@67', 'Rahul', 'Kolkata', .4)
9 SELECT 1 FROM dual;
```

7 rows created.

```
SQL> INSERT ALL
2 INTO Orders(ord_no, purch_amt, ord_date, customer_id, salesman_id) VALUES (123, 600, '20-aug-2010', '003cd', 'si123@19')
3 INTO Orders(ord_no, purch_amt, ord_date, customer_id, salesman_id) VALUES (576, 750, '20-feb-2018', '004cd', 'si123@19')
4 INTO Orders(ord_no, purch_amt, ord_date, customer_id, salesman_id) VALUES (579, 800, '20-may-2012', '004cd', 'si123@26')
5 INTO Orders(ord_no, purch_amt, ord_date, customer_id, salesman_id) VALUES (600, 60000, '20-jan-2021', '006cd', 'si123@10')
6 INTO Orders(ord_no, purch_amt, ord_date, customer_id, salesman_id) VALUES (700, 745, '26-jan-2021', '007cd', 'si123@09')
7 INTO Orders(ord_no, purch_amt, ord_date, customer_id, salesman_id) VALUES (800, 860, '29-jan-2019', '007cd', 'si123@26')
8 SELECT 1 FROM dual;
```

6 rows created.

```
SQL>
SQL> SELECT * FROM salesman;
```

SALESMAN	NAME	CITY	COMMISSION
si123@06	Lakshmi	Kolkata	.5
si123@09	Ganesh	London	.6
si123@90	Dinesh	London	.3
si123@10	Joseph	Chennai	.6
si123@19	Mahesh	Chennai	.65
si123@26	Paul Adam	London	.1
si123@67	Rahul	Kolkata	.4

7 rows selected.

```
SQL> SELECT * FROM Orders;
```



```

si123@06 Lakshmi      Kolkata      .5
si123@09 Ganesh       London      .6
si123@90 Dinesh       London      .3
si123@10 Joseph       Chennai     .6
si123@19 Mahesh       Chennai     .65
si123@26 Paul Adam    London      .1
si123@67 Rahul        Kolkata     .4

```

7 rows selected.

SQL> SELECT * FROM Orders;

ORD_NO	PURCH_AMT	ORD_DATE	CUSTO	SALESMAN
123	600	20-AUG-10	003cd	si123@19
576	750	20-FEB-18	004cd	si123@19
579	800	20-MAY-12	004cd	si123@26
600	60000	20-JAN-21	006cd	si123@10
700	745	26-JAN-21	007cd	si123@09
800	860	29-JAN-19	007cd	si123@26

6 rows selected.

SQL>

SQL> SELECT ord_no, purch_amt, ord_date, customer_id FROM Orders WHERE

2 salesman_id in

3 (SELECT a.salesman_id FROM salesman a WHERE a.commission > (SELECT avg(b.commission) FROM salesman b WHERE a.city=b.city GROUP BY city));

ORD_NO	PURCH_AMT	ORD_DATE	CUSTO
700	745	26-JAN-21	007cd
576	750	20-FEB-18	004cd
123	600	20-AUG-10	003cd

SQL>

SQL> DELETE FROM salesman WHERE commission > 0.2;

6 rows deleted.

SQL>

SQL> ALTER TABLE Orders

2 DISABLE CONSTRAINT Orders_fk;

Table altered.

SQL>

SQL> UPDATE Orders SET salesman_id = 'NA' WHERE salesman_id is NULL;

4 rows updated.

```
SQL>
SQL> SELECT * FROM salesman;
```

SALESMAN NAME	CITY	COMMISSION
si123@26 Paul Adam	London	.1

```
SQL> SELECT * FROM Orders;
```

ORD_NO	PURCH_AMT	ORD_DATE	CUSTO	SALESMAN
123	600	20-AUG-10	003cd	NA
576	750	20-FEB-18	004cd	NA
579	800	20-MAY-12	004cd	si123@26
600	60000	20-JAN-21	006cd	NA
700	745	26-JAN-21	007cd	NA
800	860	29-JAN-19	007cd	si123@26

6 rows selected.

```
SQL>
SQL> DROP TABLE Orders;
```

Table dropped.

```
SQL> DROP TABLE salesman;
```

Table dropped.

```
SQL> _
```