کامند ها و نتایج

1

```
mysql> describe patients
    -> ;
+--------------+-----------------+------+-----+---------+----------------+
| Field        | Type            | Null | Key | Default | Extra          |
+--------------+-----------------+------+-----+---------+----------------+
| patient_id   | int             | NO   | PRI | NULL    | auto_increment |
| first_name   | varchar(50)     | NO   |     | NULL    |                |
| last_name    | varchar(50)     | NO   |     | NULL    |                |
| national_id  | char(10)        | NO   | UNI | NULL    |                |
| birth_date   | date            | NO   |     | NULL    |                |
| gender       | enum('???','??')| NO   |     | NULL    |                |
| phone_number | char(11)        | NO   |     | NULL    |                |
+--------------+-----------------+------+-----+---------+----------------+
7 rows in set (0.04 sec)
```

2

```
mysql> describe doctors
    -> ;
+----------------+--------------+------+-----+---------+----------------+
| Field          | Type         | Null | Key | Default | Extra          |
+----------------+--------------+------+-----+---------+----------------+
| doctor_id      | int          | NO   | PRI | NULL    | auto_increment |
| first_name     | varchar(50)  | NO   |     | NULL    |                |
| last_name      | varchar(50)  | NO   |     | NULL    |                |
| specialization | varchar(100) | NO   |     | NULL    |                |
| phone_number   | char(11)     | NO   |     | NULL    |                |
+----------------+--------------+------+-----+---------+----------------+
5 rows in set (0.00 sec)

mysql> from doctors select * ;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to yo
rom doctors select *' at line 1
mysql> select * from doctors;
+-----------+------------+-----------+----------------+--------------+
| doctor_id | first_name | last_name | specialization | phone_number |
+-----------+------------+-----------+----------------+--------------+
|         1 | ????       | ?????     | ????           | 09111111111  |
|         2 | ????       | ?????     | ????? ???      | 09122222222  |
+-----------+------------+-----------+----------------+--------------+
2 rows in set (0.00 sec)

mysql> select * from patients;
+------------+------------+-----------+-------------+------------+--------+--------------+
| patient_id | first_name | last_name | national_id | birth_date | gender | phone_number |
+------------+------------+-----------+-------------+------------+--------+--------------+
|          1 | ???        | ?????     | 1234567890  | 1990-01-01 | ???    | 09123456789  |
|          2 | ?????      | ?????     | 0987654321  | 1985-05-15 | ??     | 09187654321  |
|  232333444 | shad       | shadi     | 2122333444  | 2001-01-01 | ???    | 09093355555  |
| 1222333444 | mahan      | mahani    | 1122333444  | 2000-02-02 | ???    | 09093334444  |
+------------+------------+-----------+-------------+------------+--------+--------------+
4 rows in set (0.00 sec)
```

3

```
mysql> describe doctors
    -> ;
+----------------+--------------+------+-----+---------+----------------+
| Field          | Type         | Null | Key | Default | Extra          |
+----------------+--------------+------+-----+---------+----------------+
| doctor_id      | int          | NO   | PRI | NULL    | auto_increment |
| first_name     | varchar(50)  | NO   |     | NULL    |                |
| last_name      | varchar(50)  | NO   |     | NULL    |                |
| specialization | varchar(100) | NO   |     | NULL    |                |
| phone_number   | char(11)     | NO   |     | NULL    |                |
+----------------+--------------+------+-----+---------+----------------+
5 rows in set (0.00 sec)

mysql> insert into doctors( doctor_id, first_name , last_name , specializati
on , phone_number ) values ("1" , "farhan" , "farhani" , "heart" , "09091112222" ),("2" , "shahram" , "rad" , "knee" , "09993334444" );
ERROR 1062 (23000): Duplicate entry '1' for key 'doctors.PRIMARY'
mysql> insert into doctors( doctor_id, first_name , last_name , specialization , phone_number ) values ("5" , "farhan" , "farhani" , "heart" , "09091112
222" ),("6" , "shahram" , "rad" , "knee" , "09993334444" );
Query OK, 2 rows affected (0.00 sec)
Records: 2  Duplicates: 0  Warnings: 0

mysql> describe department
    -> s;
ERROR 1146 (42S02): Table 'hospital_shafa.department' doesn't exist
mysql> describe departments;
+-----------------+--------------+------+-----+---------+----------------+
| Field           | Type         | Null | Key | Default | Extra          |
+-----------------+--------------+------+-----+---------+----------------+
| department_id   | int          | NO   | PRI | NULL    | auto_increment |
| department_name | varchar(100) | NO   |     | NULL    |                |
+-----------------+--------------+------+-----+---------+----------------+
2 rows in set (0.00 sec)

mysql> insert into departments(department_name) values ('rest' , 'surgery_ro
om' , 'emergency' , 'special_cures');
ERROR 1136 (21S01): Column count doesn't match value count at row 1
mysql> insert into departments(department_name) values ('rest') , ('surgery_
room') , ('emergency') , ('special_cures');
Query OK, 4 rows affected (0.01 sec)
```

4

```
mysql> describe rooms
    -> ;
+---------------+-------------+------+-----+---------+----------------+
| Field         | Type        | Null | Key | Default | Extra          |
+---------------+-------------+------+-----+---------+----------------+
| room_id       | int         | NO   | PRI | NULL    | auto_increment |
| room_number   | varchar(10) | NO   |     | NULL    |                |
| department_id | int         | YES  | MUL | NULL    |                |
+---------------+-------------+------+-----+---------+----------------+
3 rows in set (0.00 sec)

mysql> describe rooms;
+---------------+-------------+------+-----+---------+----------------+
| Field         | Type        | Null | Key | Default | Extra          |
+---------------+-------------+------+-----+---------+----------------+
| room_id       | int         | NO   | PRI | NULL    | auto_increment |
| room_number   | varchar(10) | NO   |     | NULL    |                |
| department_id | int         | YES  | MUL | NULL    |                |
+---------------+-------------+------+-----+---------+----------------+
3 rows in set (0.00 sec)

mysql> insert into rooms (room_number , department_id) values('1' , 1),('2' , 2) ,('3' , 3 ) ;
Query OK, 3 rows affected (0.01 sec)
Records: 3  Duplicates: 0  Warnings: 0

mysql> describe addmissions          ;
ERROR 1146 (42S02): Table 'hospital_shafa.addmissions' doesn't exist
mysql> describe admissions;
+----------------+------+------+-----+---------+----------------+
| Field          | Type | Null | Key | Default | Extra          |
+----------------+------+------+-----+---------+----------------+
| admission_id   | int  | NO   | PRI | NULL    | auto_increment |
| patient_id     | int  | YES  | MUL | NULL    |                |
| room_id        | int  | YES  | MUL | NULL    |                |
| admission_date | date | NO   |     | NULL    |                |
| discharge_date | date | YES  |     | NULL    |                |
+----------------+------+------+-----+---------+----------------+
5 rows in set (0.00 sec)
```

5

```
mysql> insert into admissions ( patient_id , room_id ,admission_date , disch
arge_date ) values ( 1,1 ,'2024-01-01' , '2024-01-01'),(2,2 , '2024-01-02','
2024-01-02);
    '>
    '> '
    -> ;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near ''
 at line 3
mysql> insert into admissions ( patient_id , room_id ,admission_date , discharge_date ) values ( 1,1 ,'2024-01-01' , '2024-01-01'),(2,2 , '2024-01-02','2024
-01-02');
Query OK, 2 rows affected (0.01 sec)
Records: 2  Duplicates: 0  Warnings: 0

mysql> describe services
    -> ;
+--------------+---------------+------+-----+---------+----------------+
| Field        | Type          | Null | Key | Default | Extra          |
+--------------+---------------+------+-----+---------+----------------+
| service_id   | int           | NO   | PRI | NULL    | auto_increment |
| service_name | varchar(100)  | NO   |     | NULL    |                |
| cost         | decimal(10,2) | NO   |     | NULL    |                |
+--------------+---------------+------+-----+---------+----------------+
3 rows in set (0.00 sec)

mysql> insert into services (service_name , cost ) values ( '20500','surgury'),('5000','visit');
ERROR 1366 (HY000): Incorrect decimal value: 'surgury' for column 'cost' at row 1
mysql> describe services
    -> ;
+--------------+---------------+------+-----+---------+----------------+
| Field        | Type          | Null | Key | Default | Extra          |
+--------------+---------------+------+-----+---------+----------------+
| service_id   | int           | NO   | PRI | NULL    | auto_increment |
| service_name | varchar(100)  | NO   |     | NULL    |                |
| cost         | decimal(10,2) | NO   |     | NULL    |                |
+--------------+---------------+------+-----+---------+----------------+
3 rows in set (0.00 sec)

mysql> insert into services (service_name , cost ) values ( 'surgury' , '10000'),('visit','5000');
Query OK, 2 rows affected (0.01 sec)
Records: 2  Duplicates: 0  Warnings: 0
```

6

```
mysql> describe visits;
+------------+------+------+-----+---------+----------------+
| Field      | Type | Null | Key | Default | Extra          |
+------------+------+------+-----+---------+----------------+
| visit_id   | int  | NO   | PRI | NULL    | auto_increment |
| doctor_id  | int  | YES  | MUL | NULL    |                |
| patient_id | int  | YES  | MUL | NULL    |                |
| visit_date | date | NO   |     | NULL    |                |
+------------+------+------+-----+---------+----------------+
4 rows in set (0.00 sec)

mysql> insert into visits(doctor_id , patient_id , visit_date ) values (1,1,
'2024-1-2'),(2,2,'2024-2-1');
Query OK, 2 rows affected (0.01 sec)
Records: 2  Duplicates: 0  Warnings: 0

mysql> describe patients;
+--------------+----------------+------+-----+---------+----------------+
| Field        | Type           | Null | Key | Default | Extra          |
+--------------+----------------+------+-----+---------+----------------+
| patient_id   | int            | NO   | PRI | NULL    | auto_increment |
| first_name   | varchar(50)    | NO   |     | NULL    |                |
| last_name    | varchar(50)    | NO   |     | NULL    |                |
| national_id  | char(10)       | NO   | UNI | NULL    |                |
| birth_date   | date           | NO   |     | NULL    |                |
| gender       | enum('???','??') | NO |     | NULL    |                |
| phone_number | char(11)       | NO   |     | NULL    |                |
+--------------+----------------+------+-----+---------+----------------+
7 rows in set (0.00 sec)

mysql> describe doctors;
+----------------+--------------+------+-----+---------+----------------+
| Field          | Type         | Null | Key | Default | Extra          |
+----------------+--------------+------+-----+---------+----------------+
| doctor_id      | int          | NO   | PRI | NULL    | auto_increment |
| first_name     | varchar(50)  | NO   |     | NULL    |                |
| last_name      | varchar(50)  | NO   |     | NULL    |                |
| specialization | varchar(100) | NO   |     | NULL    |                |
| phone_number   | char(11)     | NO   |     | NULL    |                |
+----------------+--------------+------+-----+---------+----------------+
5 rows in set (0.00 sec)
```

7

```
mysql> describe departments;
+-----------------+--------------+------+-----+---------+----------------+
| Field           | Type         | Null | Key | Default | Extra          |
+-----------------+--------------+------+-----+---------+----------------+
| department_id   | int          | NO   | PRI | NULL    | auto_increment |
| department_name | varchar(100) | NO   |     | NULL    |                |
+-----------------+--------------+------+-----+---------+----------------+
2 rows in set (0.00 sec)

mysql> describe rooms;
+---------------+-------------+------+-----+---------+----------------+
| Field         | Type        | Null | Key | Default | Extra          |
+---------------+-------------+------+-----+---------+----------------+
| room_id       | int         | NO   | PRI | NULL    | auto_increment |
| room_number   | varchar(10) | NO   |     | NULL    |                |
| department_id | int         | YES  | MUL | NULL    |                |
+---------------+-------------+------+-----+---------+----------------+
3 rows in set (0.00 sec)

mysql> describe admissions;
+----------------+------+------+-----+---------+----------------+
| Field          | Type | Null | Key | Default | Extra          |
+----------------+------+------+-----+---------+----------------+
| admission_id   | int  | NO   | PRI | NULL    | auto_increment |
| patient_id     | int  | YES  | MUL | NULL    |                |
| room_id        | int  | YES  | MUL | NULL    |                |
| admission_date | date | NO   |     | NULL    |                |
| discharge_date | date | YES  |     | NULL    |                |
+----------------+------+------+-----+---------+----------------+
5 rows in set (0.00 sec)

mysql> describe services;
+--------------+---------------+------+-----+---------+----------------+
| Field        | Type          | Null | Key | Default | Extra          |
+--------------+---------------+------+-----+---------+----------------+
| service_id   | int           | NO   | PRI | NULL    | auto_increment |
| service_name | varchar(100)  | NO   |     | NULL    |                |
| cost         | decimal(10,2) | NO   |     | NULL    |                |
+--------------+---------------+------+-----+---------+----------------+
3 rows in set (0.00 sec)
```

8

```
mysql> describe visits;
+------------+------+------+-----+---------+----------------+
| Field      | Type | Null | Key | Default | Extra          |
+------------+------+------+-----+---------+----------------+
| visit_id   | int  | NO   | PRI | NULL    | auto_increment |
| doctor_id  | int  | YES  | MUL | NULL    |                |
| patient_id | int  | YES  | MUL | NULL    |                |
| visit_date | date | NO   |     | NULL    |                |
+------------+------+------+-----+---------+----------------+
4 rows in set (0.00 sec)

mysql> describe surgeries;
+--------------+------+------+-----+---------+----------------+
| Field        | Type | Null | Key | Default | Extra          |
+--------------+------+------+-----+---------+----------------+
| surgery_id   | int  | NO   | PRI | NULL    | auto_increment |
| patient_id   | int  | YES  | MUL | NULL    |                |
| doctor_id    | int  | YES  | MUL | NULL    |                |
| surgery_date | date | NO   |     | NULL    |                |
| room_id      | int  | YES  | MUL | NULL    |                |
+--------------+------+------+-----+---------+----------------+
5 rows in set (0.00 sec)

mysql> select * from patients;
+------------+------------+-----------+-------------+------------+--------+--------------+
| patient_id | first_name | last_name | national_id | birth_date | gender | phone_number |
+------------+------------+-----------+-------------+------------+--------+--------------+
|          1 | ???        | ?????     | 1234567890  | 1990-01-01 | ???    | 09123456789  |
|          2 | ?????      | ?????     | 0987654321  | 1985-05-15 | ??     | 09187654321  |
|  232333444 | shad       | shadi     | 2122333444  | 2001-01-01 | ???    | 09093355555  |
| 1222333444 | mahan      | mahani    | 1122333444  | 2000-02-02 | ???    | 09093334444  |
+------------+------------+-----------+-------------+------------+--------+--------------+
4 rows in set (0.00 sec)
```

9

```
mysql> select * from doctors ;
+-----------+------------+-----------+----------------+--------------+
| doctor_id | first_name | last_name | specialization | phone_number |
+-----------+------------+-----------+----------------+--------------+
|         1 | ????       | ?????     | ????           | 09111111111  |
|         2 | ????       | ?????     | ????? ???      | 09122222222  |
|         5 | farhan     | farhani   | heart          | 09091112222  |
|         6 | shahram    | rad       | knee           | 09993334444  |
+-----------+------------+-----------+----------------+--------------+
4 rows in set (0.00 sec)

mysql> select p.first_name , p.last_name from patients p join admissions a ON p.patient_id = a.patient_id where a.admission_date = '2024-01-01' and date
diff(a.discharge_date , a.admission_date) <= 10 ;
+------------+-----------+
| first_name | last_name |
+------------+-----------+
| ???        | ?????     |
+------------+-----------+
1 row in set (0.00 sec)

mysql> select distinct d.first_name , d.last_name from doctors d join visits
 v on d.doctor_id = v.doctor_id join admissions a on v.patient_id= a .patien
t_id where a.admission_date='2024-01-01' and datediff(a.discharge_date , a.a
dmission_date)<=10;
+------------+-----------+
| first_name | last_name |
+------------+-----------+
| ????       | ?????     |
+------------+-----------+
1 row in set (0.00 sec)

mysql> select p.first_name , p.last_name from patients p join surgeries s  o
n p.patient_id=s.patient_id join doctors d on s.doctor_id = d.doctor_id wher
e d.doctor_id = 1 and year(s.surgery_date) = 2024 and month(s.surgery_date)b
etween 3 and 5 ;
Empty set (0.00 sec)
```

10

```
mysql> select s.service_name from services s join admissions a on s.service_id = a.admission_id where a.department_id = 1 ;
ERROR 1054 (42S22): Unknown column 'a.department_id' in 'where clause'
mysql> describe admissions;
+----------------+-------+------+-----+---------+----------------+
| Field          | Type  | Null | Key | Default | Extra          |
+----------------+-------+------+-----+---------+----------------+
| admission_id   | int   | NO   | PRI | NULL    | auto_increment |
| patient_id     | int   | YES  | MUL | NULL    |                |
| room_id        | int   | YES  | MUL | NULL    |                |
| admission_date | date  | NO   |     | NULL    |                |
| discharge_date | date  | YES  |     | NULL    |                |
+----------------+-------+------+-----+---------+----------------+
5 rows in set (0.00 sec)

mysql> select * from admissions
    -> ;
+--------------+------------+---------+----------------+----------------+
| admission_id | patient_id | room_id | admission_date | discharge_date |
+--------------+------------+---------+----------------+----------------+
|            1 |          1 |       1 | 2023-10-01     | 2023-10-05     |
|            2 |          2 |       2 | 2023-10-02     | 2023-10-12     |
|            3 |          1 |       1 | 2024-01-01     | 2024-01-01     |
|            4 |          2 |       2 | 2024-01-02     | 2024-01-02     |
+--------------+------------+---------+----------------+----------------+
4 rows in set (0.00 sec)

mysql> select s.service_name from services s join admissions a on s.service_id = a.admission_id where a.room_id = 1 ;
+--------------+
| service_name |
+--------------+
| ?????        |
| surgury      |
+--------------+
2 rows in set (0.00 sec)
```

11

```
mysql> select s.service_name from services s join admissions a on s.service_id = a.admission_id where a.room_id = 2 ;
+--------------+
| service_name |
+--------------+
| ?????        |
| visit        |
+--------------+
2 rows in set (0.00 sec)

mysql> select s.sesrvice_name from services s join visits v on s.service_id
= v.visit_id join doctors d on v.doctor_id = d.doctor_id where d.doctor_id =
 1 ;
ERROR 1054 (42S22): Unknown column 's.sesrvice_name' in 'field list'
mysql> select s.service_name from services s join visits v on s.service_id = v.visit_id join doctors d on v.doctor_id = d.doctor_id where d.doctor_id = 1 ;
+--------------+
| service_name |
+--------------+
| ?????        |
| surgury      |
+--------------+
2 rows in set (0.00 sec)

mysql> select sum(s.cost) as total_cost from services s join admissions a on
 s.service_id = a.admission_id where a.patient_id = 1;
+------------+
| total_cost |
+------------+
| 5010000.00 |
+------------+
1 row in set (0.00 sec)

mysql>
```