**mysql> #TASK 1**

**mysql> #DATABASE CREATION**

**mysql> CREATE database Hospitals**

**-> ;**

Query OK, 1 row affected (0.08 sec)

mysql> show databases;

+--------------------+

| Database |

+--------------------+

| dummydb |

| hospitals |

| information\_schema |

| mysql |

| performance\_schema |

| sakila |

| sys |

| world |

| zoo |

+--------------------+

9 rows in set (0.05 sec)

**mysql> #TABLE CREATION WITH CONSTRAINTS**

**mysql> use hospitals;**

Database changed

**mysql> CREATE TABLE Hospital(Hos\_Id int PRIMARY KEY AUTO\_INCREMENT,Name varchar(100) NOT NULL,Phone bigint UNIQUE CHECK(Phone > 1000000000 AND Phone < 9999999999),Address varchar(200) DEFAULT "Please Contact Us To Know Our Exact Location");**

Query OK, 0 rows affected (0.13 sec)

**mysql> CREATE TABLE Employee(Hos\_Id int,Emp\_Id int PRIMARY KEY,Name varchar(50) NOT NULL,Designation varchar(30),Salary int CHECK(Salary > 15000),Status varchar(20) DEFAULT "On Duty", FOREIGN KEY(Hos\_Id) REFERENCES Hospital(Hos\_ID));**

Query OK, 0 rows affected (0.10 sec)

mysql> show tables;

+---------------------+

| Tables\_in\_hospitals |

+---------------------+

| employee |

| hospital |

+---------------------+

2 rows in set (0.01 sec)

**mysql> desc Hospital;**

+---------+--------------+------+-----+----------------------------------------------+----------------+

| Field | Type | Null | Key | Default | Extra |

+---------+--------------+------+-----+----------------------------------------------+----------------+

| Hos\_Id | int | NO | PRI | NULL | auto\_increment |

| Name | varchar(100) | NO | | NULL | |

| Phone | bigint | YES | UNI | NULL | |

| Address | varchar(200) | YES | | Please Contact Us To Know Our Exact Location | |

+---------+--------------+------+-----+----------------------------------------------+----------------+

4 rows in set (0.03 sec)

**mysql> desc Employee;**

+-------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------------+-------------+------+-----+---------+-------+

| Hos\_Id | int | YES | MUL | NULL | |

| Emp\_Id | int | NO | PRI | NULL | |

| Name | varchar(50) | NO | | NULL | |

| Designation | varchar(30) | YES | | NULL | |

| Salary | int | YES | | NULL | |

| Status | varchar(20) | YES | | On Duty | |

+-------------+-------------+------+-----+---------+-------+

6 rows in set (0.02 sec)

mysql>

mysql>

**mysql> #INSERTION OF VALUES**

mysql>

mysql>

mysql> INSERT INTO Hospital Values(1,'Apolo Hospital',9432421876);

ERROR 1136 (21S01): Column count doesn't match value count at row 1

mysql> INSERT INTO Hospital Values(1,'Apolo Hospital',9432421876,null);

Query OK, 1 row affected (0.03 sec)

mysql> SELECT \* FROM Hospital;

+--------+----------------+------------+---------+

| Hos\_Id | Name | Phone | Address |

+--------+----------------+------------+---------+

| 1 | Apolo Hospital | 9432421876 | NULL |

+--------+----------------+------------+---------+

1 row in set (0.00 sec)

mysql> DELETE FROM Hospital;

Query OK, 1 row affected (0.03 sec)

**mysql> INSERT INTO Hospital (Hos\_Id,Name,Phone) Values(1,'Apolo Hospital',9432421876);**

Query OK, 1 row affected (0.05 sec)

mysql> SELECT \* FROM Hospital;

+--------+----------------+------------+----------------------------------------------+

| Hos\_Id | Name | Phone | Address |

+--------+----------------+------------+----------------------------------------------+

| 1 | Apolo Hospital | 9432421876 | Please Contact Us To Know Our Exact Location |

+--------+----------------+------------+----------------------------------------------+

1 row in set (0.03 sec)

**mysql> INSERT INTO Hospital (Name,Phone) Values('Woodland Medical Center',9857993247);**

Query OK, 1 row affected (0.03 sec)

**mysql> INSERT INTO Hospital (Name,Phone) Values('Hopedale Community Hospital',9324598150),('Clemency Medical Clinic',9671580367),('Harmony Grove General Hospital',9482660614);**

Query OK, 3 rows affected (0.04 sec)

Records: 3 Duplicates: 0 Warnings: 0

**mysql> SELECT \* FROM Hospital;**

+--------+--------------------------------+------------+----------------------------------------------+

| Hos\_Id | Name | Phone | Address |

+--------+--------------------------------+------------+----------------------------------------------+

| 1 | Apolo Hospital | 9432421876 | Please Contact Us To Know Our Exact Location |

| 2 | Woodland Medical Center | 9857993247 | Please Contact Us To Know Our Exact Location |

| 3 | Hopedale Community Hospital | 9324598150 | Please Contact Us To Know Our Exact Location |

| 4 | Clemency Medical Clinic | 9671580367 | Please Contact Us To Know Our Exact Location |

| 5 | Harmony Grove General Hospital | 9482660614 | Please Contact Us To Know Our Exact Location |

+--------+--------------------------------+------------+----------------------------------------------+

5 rows in set (0.00 sec)

**mysql> INSERT INTO Employee(Hos\_Id,Emp\_Id,Name,Designation,Salary) Values(1,43245,'Sarah','Nurse',30000);**

Query OK, 1 row affected (0.01 sec)

**mysql> INSERT INTO Employee(Hos\_Id,Emp\_Id,Name,Designation,Salary) Values(1,56432,'Jezelle','Eye Specialist',100000),(2,45322,'Robert','Cardiologist',250000),(1,86532,'Ray','Physiotherapist',90000),(3,46860,'Flora','Gynocologist',150000);**

Query OK, 4 rows affected (0.04 sec)

Records: 4 Duplicates: 0 Warnings: 0

**mysql> SELECT \* FROM Employee;**

+--------+--------+---------+-----------------+--------+---------+

| Hos\_Id | Emp\_Id | Name | Designation | Salary | Status |

+--------+--------+---------+-----------------+--------+---------+

| 1 | 43245 | Sarah | Nurse | 30000 | On Duty |

| 2 | 45322 | Robert | Cardiologist | 250000 | On Duty |

| 3 | 46860 | Flora | Gynocologist | 150000 | On Duty |

| 1 | 56432 | Jezelle | Eye Specialist | 100000 | On Duty |

| 1 | 86532 | Ray | Physiotherapist | 90000 | On Duty |

+--------+--------+---------+-----------------+--------+---------+

5 rows in set (0.00 sec)

mysql>

mysql>

**mysql> #TASK 2**

mysql>

**mysql> #DISPLAY**

**mysql> #BETWEEN**

mysql>

**mysql> SELECT \* FROM Hospital WHERE Hos\_Id BETWEEN 2 AND 4;**

+--------+-----------------------------+------------+----------------------------------------------+

| Hos\_Id | Name | Phone | Address |

+--------+-----------------------------+------------+----------------------------------------------+

| 2 | Woodland Medical Center | 9857993247 | Please Contact Us To Know Our Exact Location |

| 3 | Hopedale Community Hospital | 9324598150 | Please Contact Us To Know Our Exact Location |

| 4 | Clemency Medical Clinic | 9671580367 | Please Contact Us To Know Our Exact Location |

+--------+-----------------------------+------------+----------------------------------------------+

3 rows in set (0.03 sec)

**mysql> SELECT \* FROM Hospital WHERE Hos\_Id NOT BETWEEN 2 AND 4;**

+--------+--------------------------------+------------+----------------------------------------------+

| Hos\_Id | Name | Phone | Address |

+--------+--------------------------------+------------+----------------------------------------------+

| 1 | Apolo Hospital | 9432421876 | Please Contact Us To Know Our Exact Location |

| 5 | Harmony Grove General Hospital | 9482660614 | Please Contact Us To Know Our Exact Location |

+--------+--------------------------------+------------+----------------------------------------------+

2 rows in set (0.00 sec)

**mysql> #IN**

mysql>

**mysql> SELECT \* FROM Hospital WHERE Hos\_Id IN(3,4);**

+--------+-----------------------------+------------+----------------------------------------------+

| Hos\_Id | Name | Phone | Address |

+--------+-----------------------------+------------+----------------------------------------------+

| 3 | Hopedale Community Hospital | 9324598150 | Please Contact Us To Know Our Exact Location |

| 4 | Clemency Medical Clinic | 9671580367 | Please Contact Us To Know Our Exact Location |

+--------+-----------------------------+------------+----------------------------------------------+

2 rows in set (0.00 sec)

**mysql> SELECT \* FROM Hospital WHERE Hos\_Id NOT IN(3,4);**

+--------+--------------------------------+------------+----------------------------------------------+

| Hos\_Id | Name | Phone | Address |

+--------+--------------------------------+------------+----------------------------------------------+

| 1 | Apolo Hospital | 9432421876 | Please Contact Us To Know Our Exact Location |

| 2 | Woodland Medical Center | 9857993247 | Please Contact Us To Know Our Exact Location |

| 5 | Harmony Grove General Hospital | 9482660614 | Please Contact Us To Know Our Exact Location |

+--------+--------------------------------+------------+----------------------------------------------+

3 rows in set (0.00 sec)

**mysql> #AND**

mysql>

**mysql> SELECT \* FROM Employee WHERE Hos\_Id= 2 AND 3;**

+--------+--------+--------+--------------+--------+---------+

| Hos\_Id | Emp\_Id | Name | Designation | Salary | Status |

+--------+--------+--------+--------------+--------+---------+

| 2 | 45322 | Robert | Cardiologist | 250000 | On Duty |

+--------+--------+--------+--------------+--------+---------+

1 row in set (0.00 sec)

**mysql> SELECT \* FROM Employee WHERE Hos\_Id= 2 AND Hos\_Id=3;**

Empty set (0.00 sec)

**mysql> SELECT \* FROM Employee WHERE Hos\_Id= 1 AND Name="Ray";**

+--------+--------+------+-----------------+--------+---------+

| Hos\_Id | Emp\_Id | Name | Designation | Salary | Status |

+--------+--------+------+-----------------+--------+---------+

| 1 | 86532 | Ray | Physiotherapist | 90000 | On Duty |

+--------+--------+------+-----------------+--------+---------+

1 row in set (0.00 sec)

mysql>

**mysql> #OR**

mysql>

**mysql> SELECT \* FROM Employee WHERE Hos\_Id= 2 OR Hos\_Id=3;**

+--------+--------+--------+--------------+--------+---------+

| Hos\_Id | Emp\_Id | Name | Designation | Salary | Status |

+--------+--------+--------+--------------+--------+---------+

| 2 | 45322 | Robert | Cardiologist | 250000 | On Duty |

| 3 | 46860 | Flora | Gynocologist | 150000 | On Duty |

+--------+--------+--------+--------------+--------+---------+

2 rows in set (0.00 sec)

**mysql> #NOT**

mysql>

**mysql> SELECT \* FROM Employee WHERE NOT Hos\_Id= 1;**

+--------+--------+--------+--------------+--------+---------+

| Hos\_Id | Emp\_Id | Name | Designation | Salary | Status |

+--------+--------+--------+--------------+--------+---------+

| 2 | 45322 | Robert | Cardiologist | 250000 | On Duty |

| 3 | 46860 | Flora | Gynocologist | 150000 | On Duty |

+--------+--------+--------+--------------+--------+---------+

2 rows in set (0.00 sec)

**mysql> #LIKE**

mysql>

**mysql> SELECT \* FROM Hospital WHERE Phone LIKE '94%';**

+--------+--------------------------------+------------+----------------------------------------------+

| Hos\_Id | Name | Phone | Address |

+--------+--------------------------------+------------+----------------------------------------------+

| 1 | Apolo Hospital | 9432421876 | Please Contact Us To Know Our Exact Location |

| 5 | Harmony Grove General Hospital | 9482660614 | Please Contact Us To Know Our Exact Location |

+--------+--------------------------------+------------+----------------------------------------------+

2 rows in set (0.04 sec)

**mysql> SELECT \* FROM Hospital WHERE Phone LIKE '%7';**

+--------+-------------------------+------------+----------------------------------------------+

| Hos\_Id | Name | Phone | Address |

+--------+-------------------------+------------+----------------------------------------------+

| 2 | Woodland Medical Center | 9857993247 | Please Contact Us To Know Our Exact Location |

| 4 | Clemency Medical Clinic | 9671580367 | Please Contact Us To Know Our Exact Location |

+--------+-------------------------+------------+----------------------------------------------+

2 rows in set (0.00 sec)

**mysql> SELECT \* FROM Employee WHERE Name LIKE '\_a%';**

+--------+--------+-------+-----------------+--------+---------+

| Hos\_Id | Emp\_Id | Name | Designation | Salary | Status |

+--------+--------+-------+-----------------+--------+---------+

| 1 | 43245 | Sarah | Nurse | 30000 | On Duty |

| 1 | 86532 | Ray | Physiotherapist | 90000 | On Duty |

+--------+--------+-------+-----------------+--------+---------+

2 rows in set (0.04 sec)

mysql>

**mysql> #VIOLATION OF CONSTRAINTS**

**mysql> #PRIMARY KEY**

**mysql> INSERT INTO Hospital (Hos\_Id,Name,Phone) Values(4,'Apolo Hospital',9432421876);**

ERROR 1062 (23000): Duplicate entry '4' for key 'hospital.PRIMARY'

mysql>

**mysql> #CHECK CONSTRAINT**

**mysql> INSERT INTO Hospital (Name,Phone) Values('Woodland Medical Center',985799324);**

ERROR 3819 (HY000): Check constraint 'hospital\_chk\_1' is violated.

mysql>

**mysql> #AUTO INCREMENT**

**mysql> ALTER TABLE Hospital MODIFY Phone Bigint AUTO\_INCREMENT;**

ERROR 1075 (42000): Incorrect table definition; there can be only one auto column and it must be defined as a key

mysql>

**mysql> #TASK3**

**mysql> #AGGREGATE FUNCTIONS**

mysql>

**mysql> #MAX**

**mysql> SELECT MAX(Salary) FROM EMPLOYEE;**

+-------------+

| MAX(Salary) |

+-------------+

| 250000 |

+-------------+

1 row in set (0.00 sec)

**mysql> #MIN**

**mysql> SELECT MIN(Salary) FROM EMPLOYEE;**

+-------------+

| MIN(Salary) |

+-------------+

| 30000 |

+-------------+

1 row in set (0.00 sec)

mysql>

**mysql> #AVG**

**mysql> SELECT AVG(Salary) FROM EMPLOYEE;**

+-------------+

| AVG(Salary) |

+-------------+

| 124000.0000 |

+-------------+

1 row in set (0.00 sec)

mysql>

mysql>

**mysql> #TASK4**

**mysql> #MODIFICATION**

**mysql> DESC HOSPITAL;**

+---------+--------------+------+-----+----------------------------------------------+----------------+

| Field | Type | Null | Key | Default | Extra |

+---------+--------------+------+-----+----------------------------------------------+----------------+

| Hos\_Id | int | NO | PRI | NULL | auto\_increment |

| Name | varchar(100) | NO | | NULL | |

| Phone | bigint | YES | UNI | NULL | |

| Address | varchar(200) | YES | | Please Contact Us To Know Our Exact Location | |

+---------+--------------+------+-----+----------------------------------------------+----------------+

4 rows in set (0.05 sec)

**mysql> DESC EMPLOYEE;**

+-------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------------+-------------+------+-----+---------+-------+

| Hos\_Id | int | YES | MUL | NULL | |

| Emp\_Id | int | NO | PRI | NULL | |

| Name | varchar(50) | NO | | NULL | |

| Designation | varchar(30) | YES | | NULL | |

| Salary | int | YES | | NULL | |

| Status | varchar(20) | YES | | On Duty | |

+-------------+-------------+------+-----+---------+-------+

6 rows in set (0.00 sec)

**mysql> ALTER TABLE HOSPITAL ADD COLUMN Beds\_Available varchar(3) DEFAULT 'Yes';**

Query OK, 0 rows affected (0.07 sec)

Records: 0 Duplicates: 0 Warnings: 0

**mysql> DESC HOSPITAL;**

+----------------+--------------+------+-----+----------------------------------------------+----------------+

| Field | Type | Null | Key | Default | Extra |

+----------------+--------------+------+-----+----------------------------------------------+----------------+

| Hos\_Id | int | NO | PRI | NULL | auto\_increment |

| Name | varchar(100) | NO | | NULL | |

| Phone | bigint | YES | UNI | NULL | |

| Address | varchar(200) | YES | | Please Contact Us To Know Our Exact Location | |

| Beds\_Available | varchar(3) | YES | | Yes | |

+----------------+--------------+------+-----+----------------------------------------------+----------------+

5 rows in set (0.03 sec)

**mysql> ALTER TABLE EMPLOYEE MODIFY Status varchar(20) NOT NULL;**

Query OK, 0 rows affected (0.16 sec)

Records: 0 Duplicates: 0 Warnings: 0

**mysql> DESC EMPLOYEE;**

+-------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------------+-------------+------+-----+---------+-------+

| Hos\_Id | int | YES | MUL | NULL | |

| Emp\_Id | int | NO | PRI | NULL | |

| Name | varchar(50) | NO | | NULL | |

| Designation | varchar(30) | YES | | NULL | |

| Salary | int | YES | | NULL | |

| Status | varchar(20) | NO | | NULL | |

+-------------+-------------+------+-----+---------+-------+

6 rows in set (0.00 sec)

**mysql> ALTER TABLE EMPLOYEE MODIFY Status varchar(20) NOT NULL DEFAULT "On Duty";**

Query OK, 0 rows affected (0.05 sec)

Records: 0 Duplicates: 0 Warnings: 0

**mysql> DESC EMPLOYEE;**

+-------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------------+-------------+------+-----+---------+-------+

| Hos\_Id | int | YES | MUL | NULL | |

| Emp\_Id | int | NO | PRI | NULL | |

| Name | varchar(50) | NO | | NULL | |

| Designation | varchar(30) | YES | | NULL | |

| Salary | int | YES | | NULL | |

| Status | varchar(20) | NO | | On Duty | |

+-------------+-------------+------+-----+---------+-------+

6 rows in set (0.00 sec)

**mysql> ALTER TABLE EMPLOYEE RENAME COLUMN Designation to Post;**

Query OK, 0 rows affected (0.04 sec)

Records: 0 Duplicates: 0 Warnings: 0

**mysql> DESC EMPLOYEE;**

+--------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------+-------------+------+-----+---------+-------+

| Hos\_Id | int | YES | MUL | NULL | |

| Emp\_Id | int | NO | PRI | NULL | |

| Name | varchar(50) | NO | | NULL | |

| Post | varchar(30) | YES | | NULL | |

| Salary | int | YES | | NULL | |

| Status | varchar(20) | NO | | On Duty | |

+--------+-------------+------+-----+---------+-------+

6 rows in set (0.03 sec)

mysql>

**mysql> #DROPPING OF FOREIGN KEY**

mysql>

mysql> SELECT \* CREATE TABLE EMPLOYEE;

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 'CREATE TABLE EMPLOYEE' at line 1

**mysql> SHOW CREATE TABLE EMPLOYEE;**

+----------+------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

| Table | Create Table |

+----------+------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

| EMPLOYEE | CREATE TABLE `employee` (

`Hos\_Id` int DEFAULT NULL,

`Emp\_Id` int NOT NULL,

`Name` varchar(50) NOT NULL,

`Post` varchar(30) DEFAULT NULL,

`Salary` int DEFAULT NULL,

`Status` varchar(20) NOT NULL DEFAULT 'On Duty',

PRIMARY KEY (`Emp\_Id`),

KEY `Hos\_Id` (`Hos\_Id`),

CONSTRAINT `employee\_ibfk\_1` FOREIGN KEY (`Hos\_Id`) REFERENCES `hospital` (`Hos\_Id`),

CONSTRAINT `employee\_chk\_1` CHECK ((`Salary` > 15000))

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci |

+----------+------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------+

1 row in set (0.04 sec)

**mysql> ALTER TABLE EMPLOYEE DROP FOREIGN KEY employee\_ibfk\_1;**

Query OK, 0 rows affected (0.03 sec)

Records: 0 Duplicates: 0 Warnings: 0

**mysql> ALTER TABLE EMPLOYEE DROP KEY Hos\_Id;**

Query OK, 0 rows affected (0.03 sec)

Records: 0 Duplicates: 0 Warnings: 0

**mysql> DESC EMPLOYEE;**

+--------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------+-------------+------+-----+---------+-------+

| Hos\_Id | int | YES | | NULL | |

| Emp\_Id | int | NO | PRI | NULL | |

| Name | varchar(50) | NO | | NULL | |

| Post | varchar(30) | YES | | NULL | |

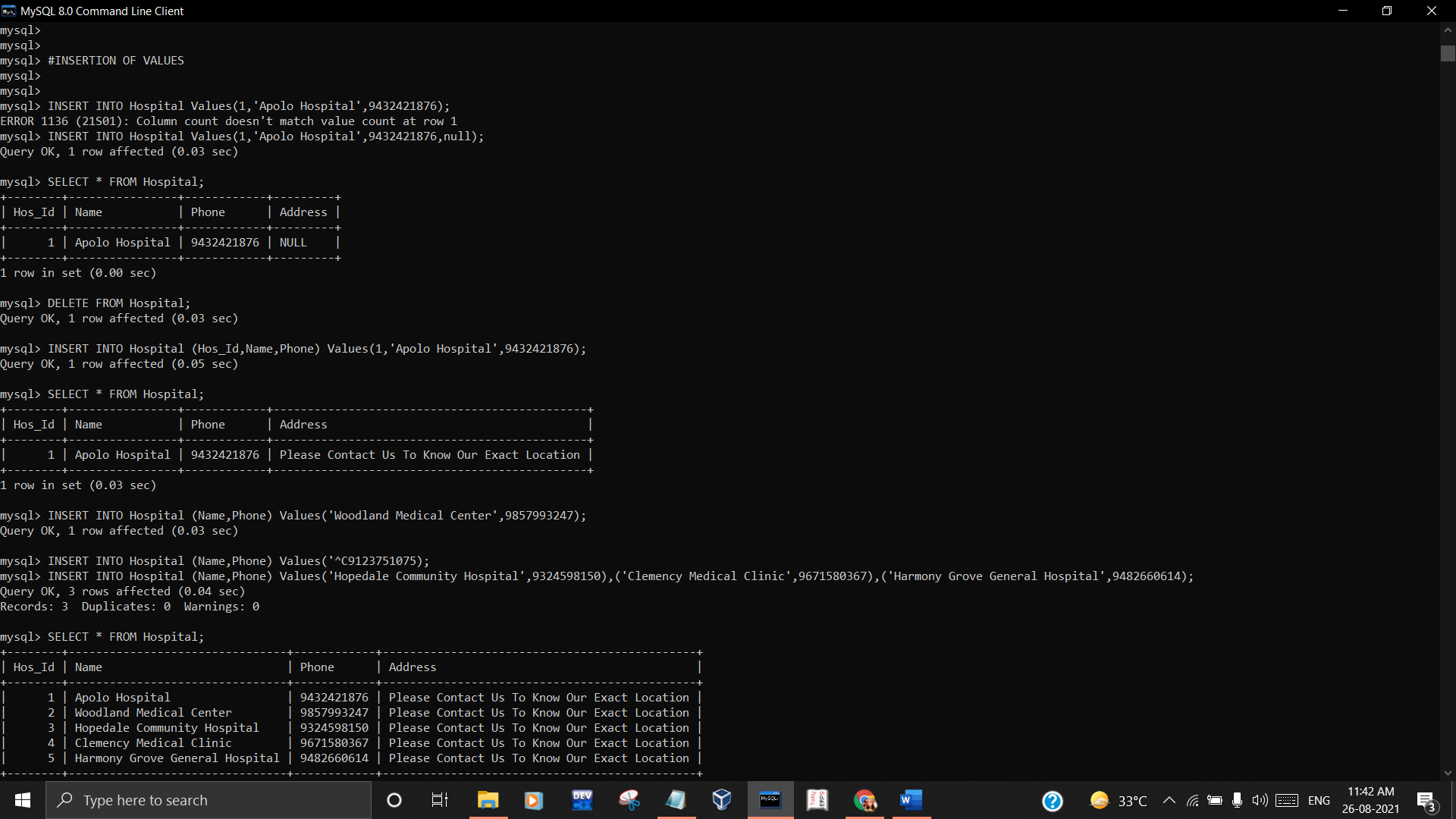
| Salary | int | YES | | NULL | |

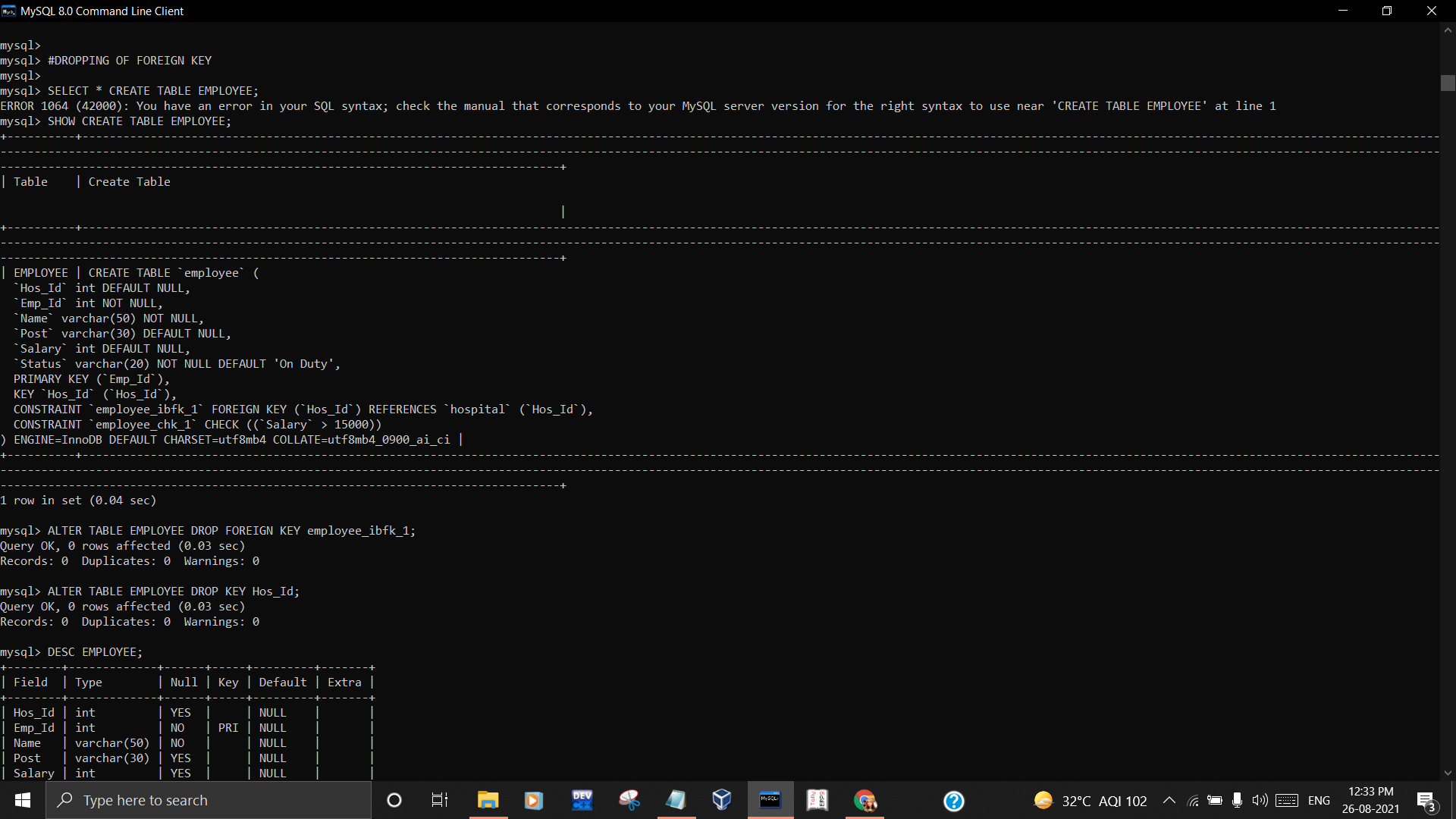
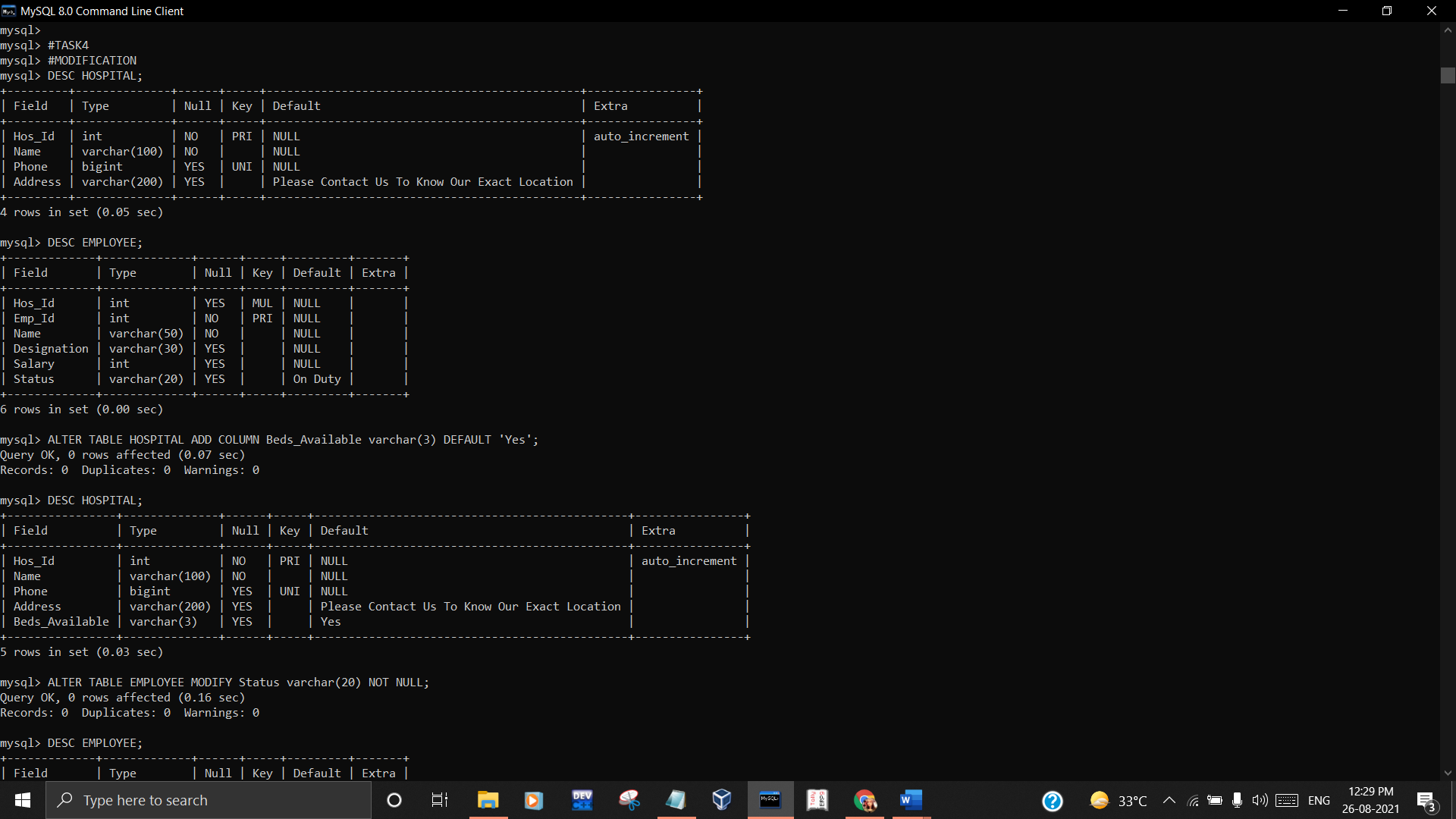
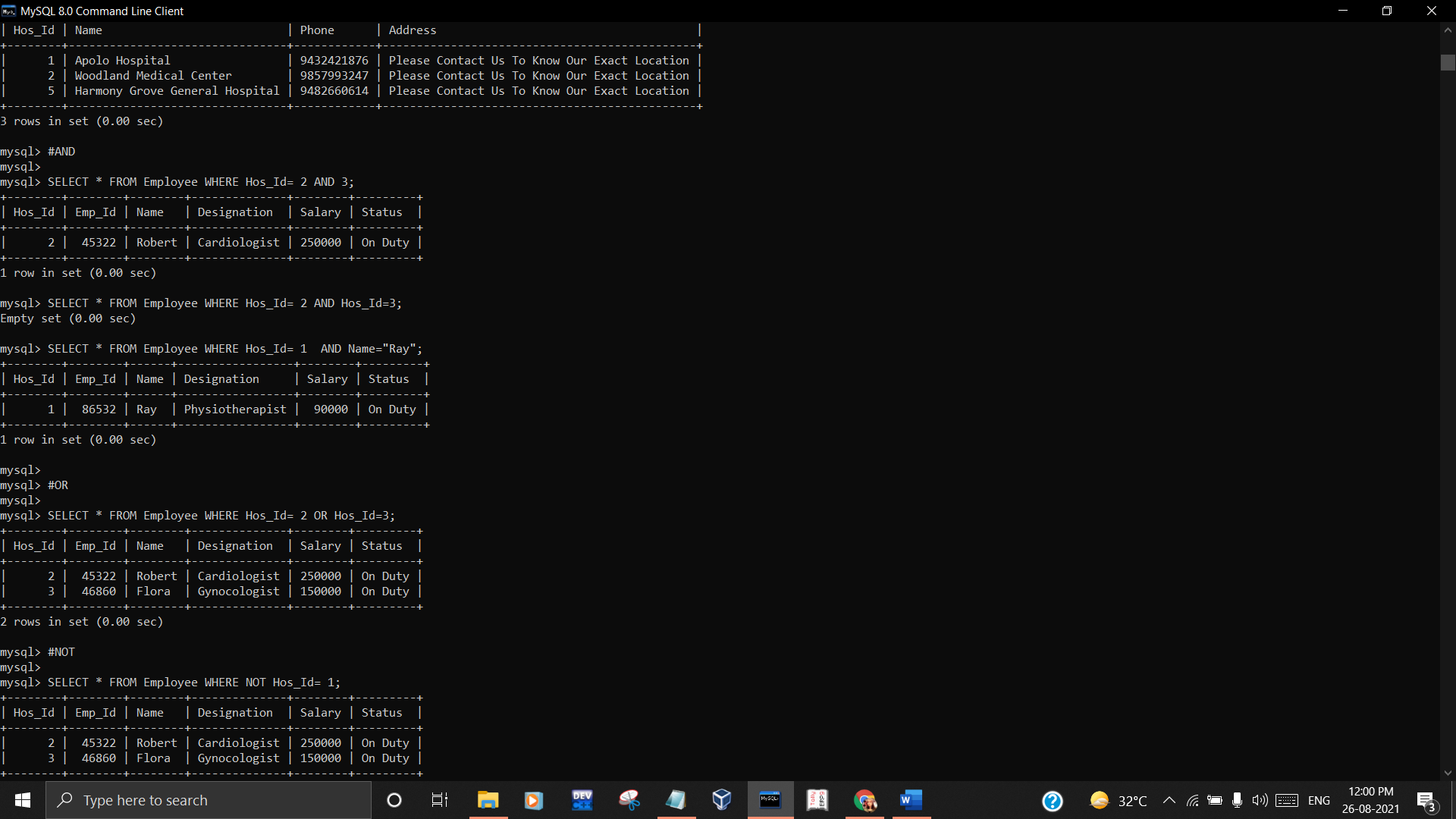
| Status | varchar(20) | NO | | On Duty | |

+--------+-------------+------+-----+---------+-------+

6 rows in set (0.04 sec)

**mysql> NOTEE;**

**SCREENSHOTS**

****