20MCA134 ADVANCED DBMS LAB

**LAB CYCLE 1**

**Experiment No: 1**

**Familiarization of DDL Commands**

Data Definition Language (DDL) - These SQL commands are used for creating, modifying,

and dropping the structure of database objects. The commands are CREATE, ALTER,

DROP, RENAME, and TRUNCATE.

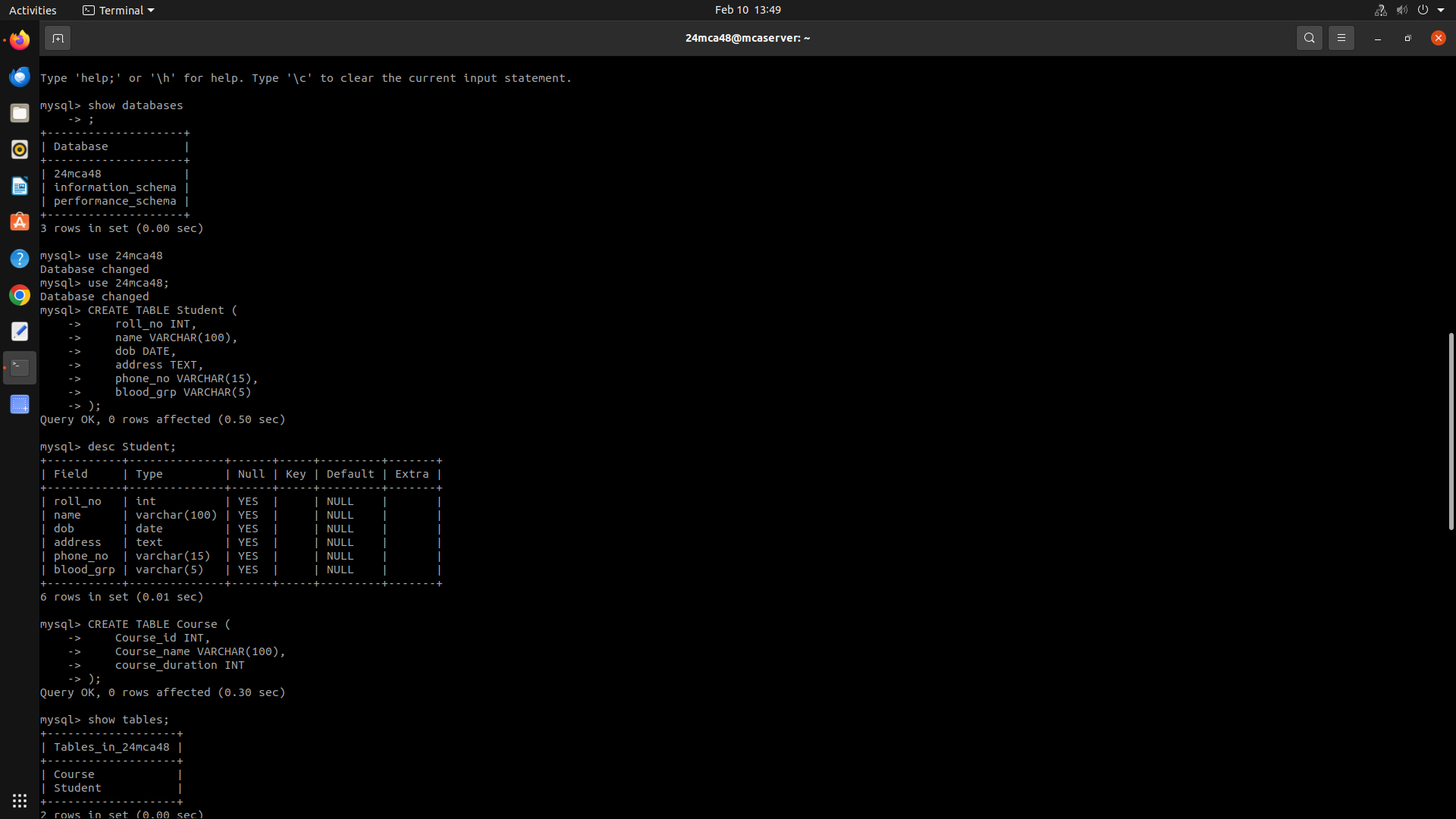
**A.** Consider the database for a college. Write SQL commands to implement the following:

1. Create a database

**create database 24mca48;**

2. Select the current database

**use 24mca48;**



3. Create the following tables:

a) Student (roll\_no integer, name varchar, dob date, address text, phone\_no varchar, blood\_grp varchar)

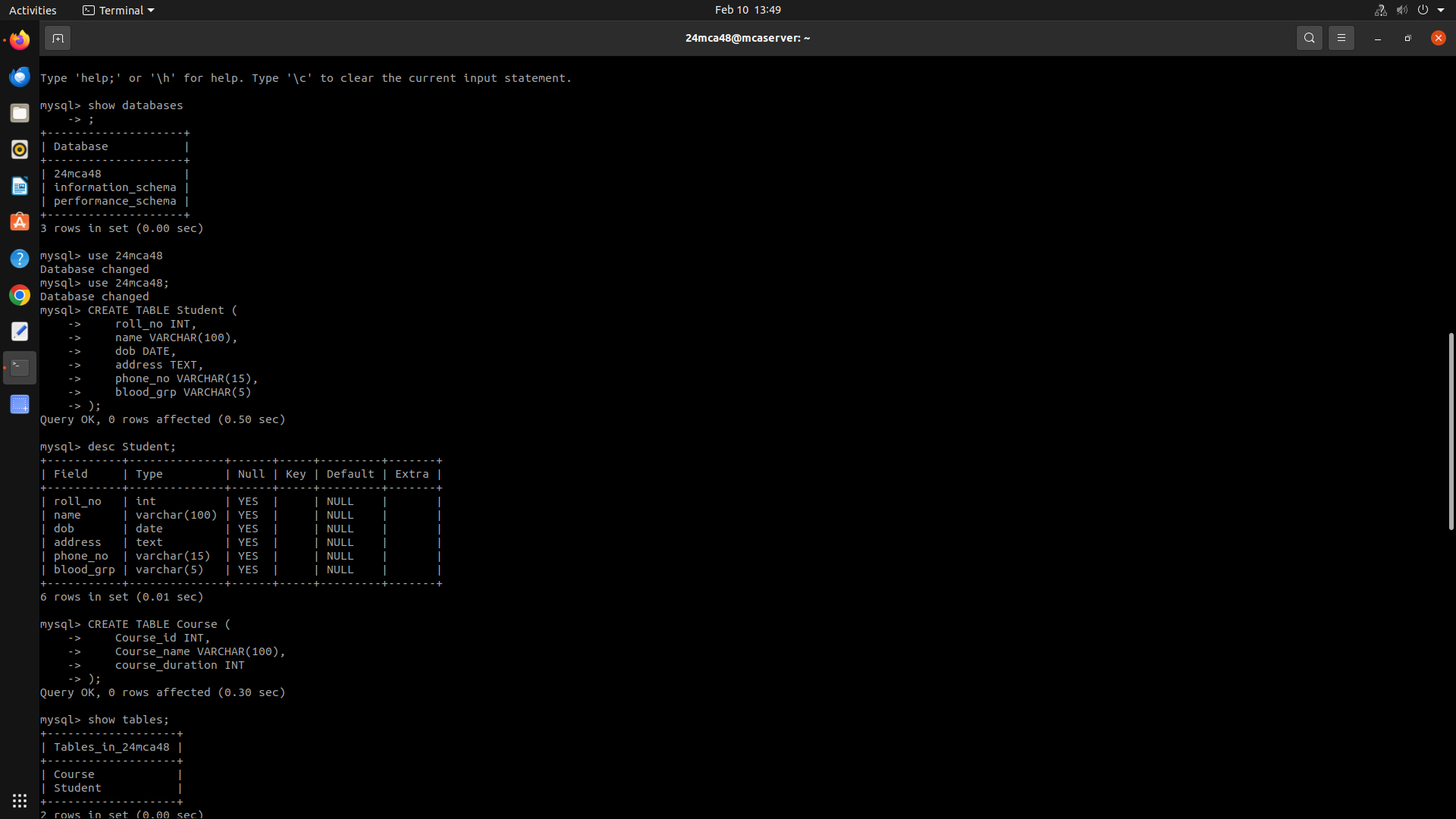
**create table student( roll\_no int, name varchar(30), dob date, address varchar(255), phone\_no varchar(11), blood\_group char(2));**

b) Course (Course\_id integer, Course\_name varchar, course\_duration

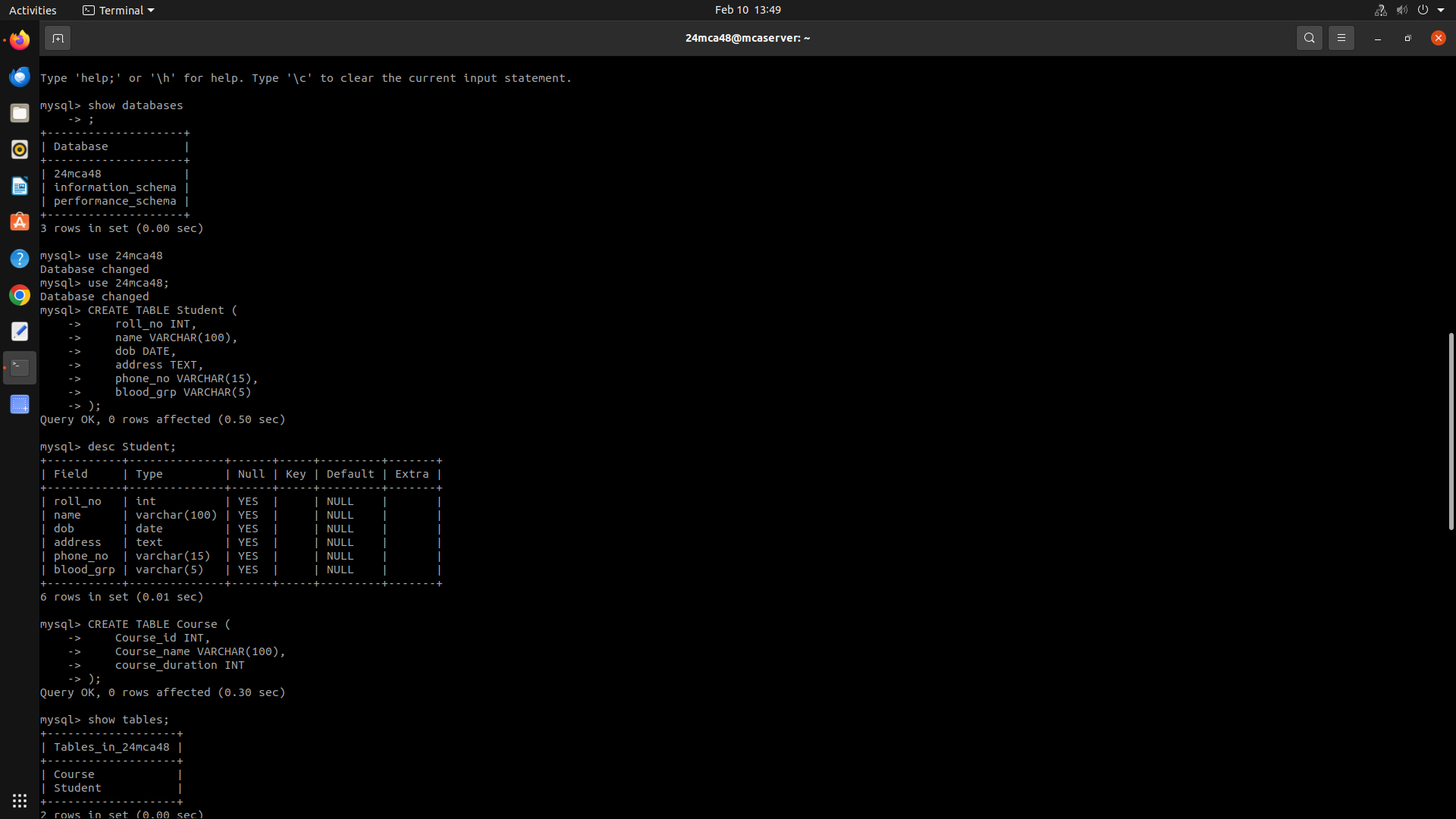
integer)

**create table course(course\_id int NOT NULL, course\_name varchar(20), course\_duration int);**

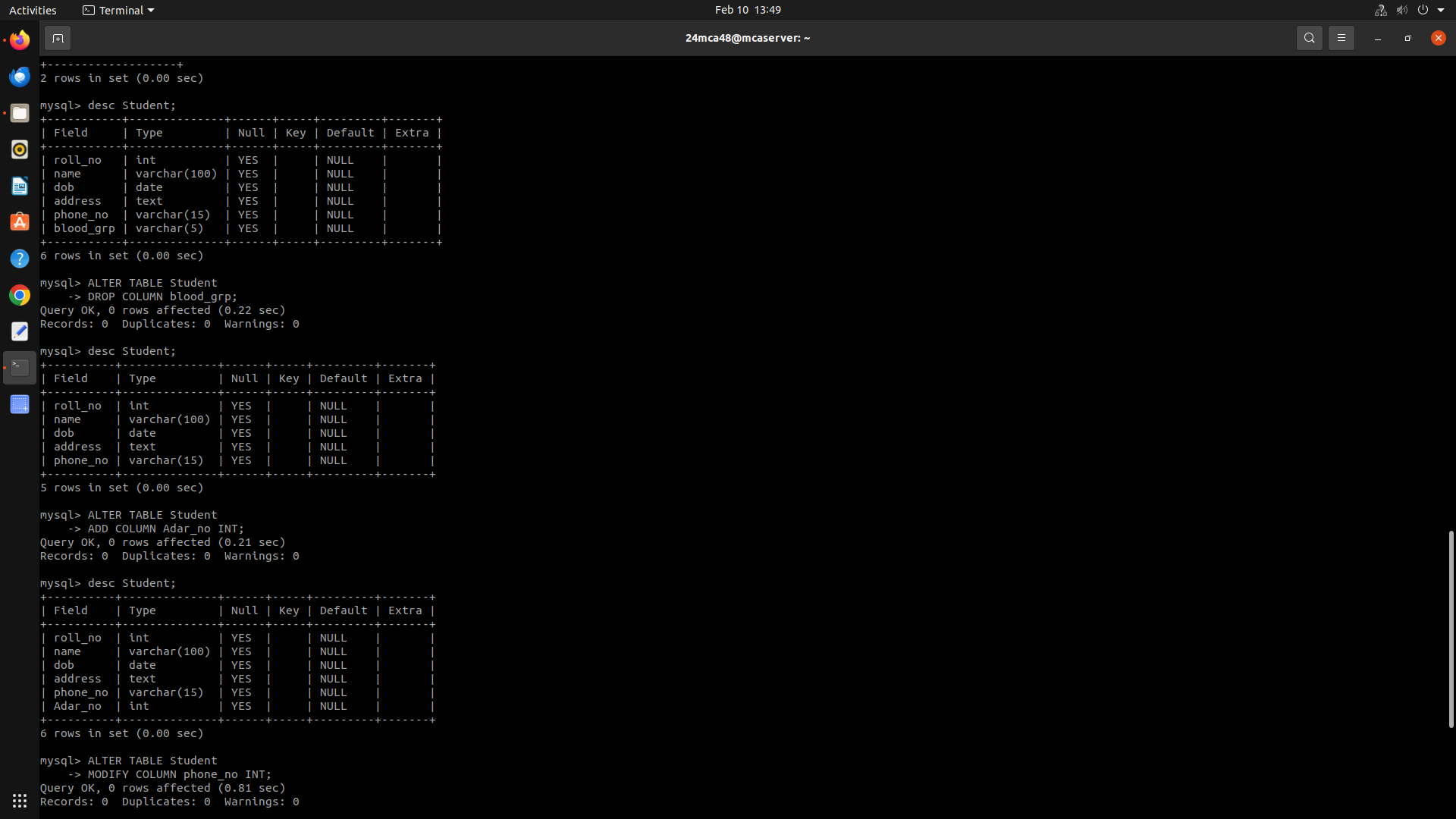
4. List all tables in the current database.



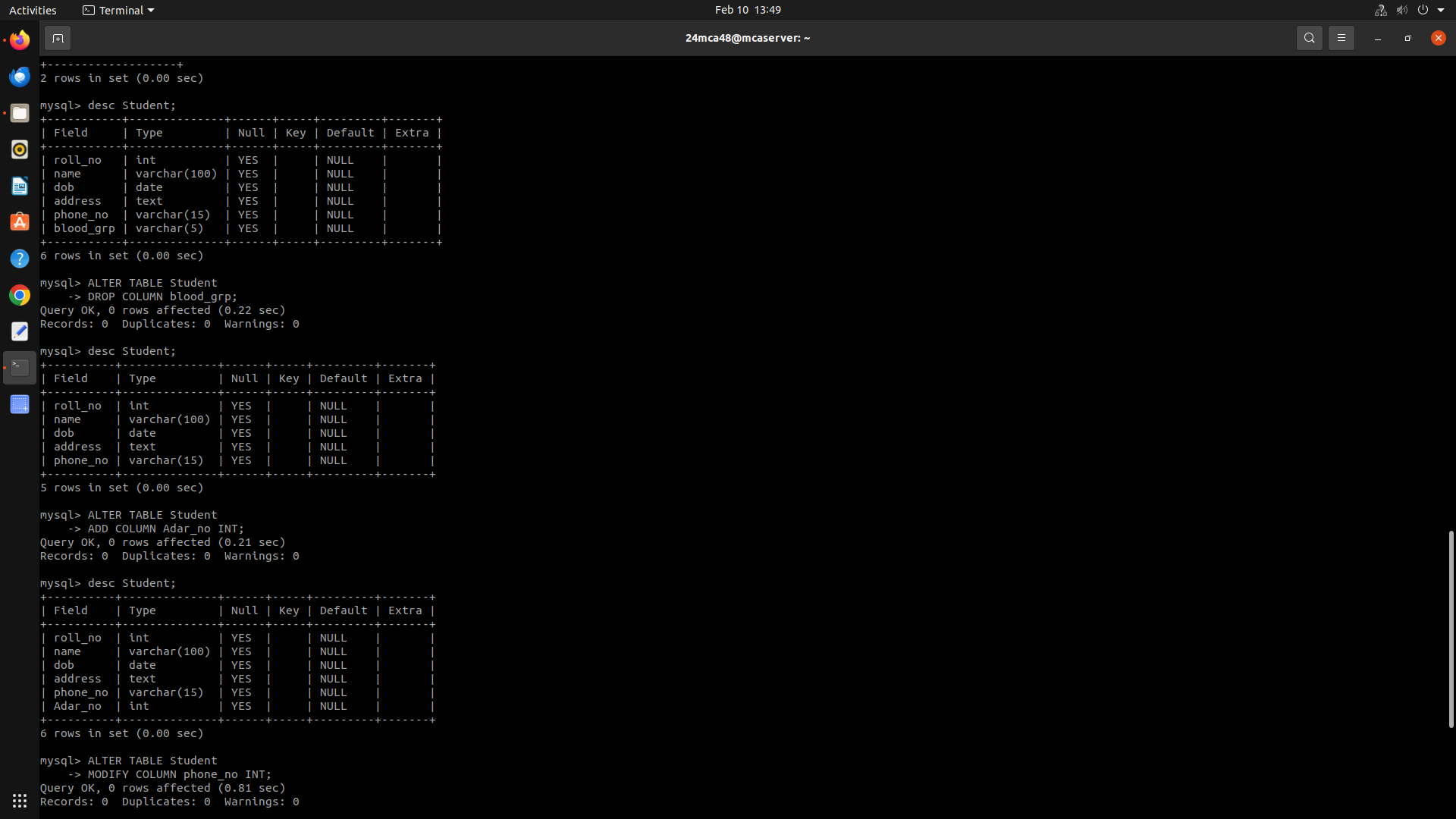
5. Display the structure of the Student table.



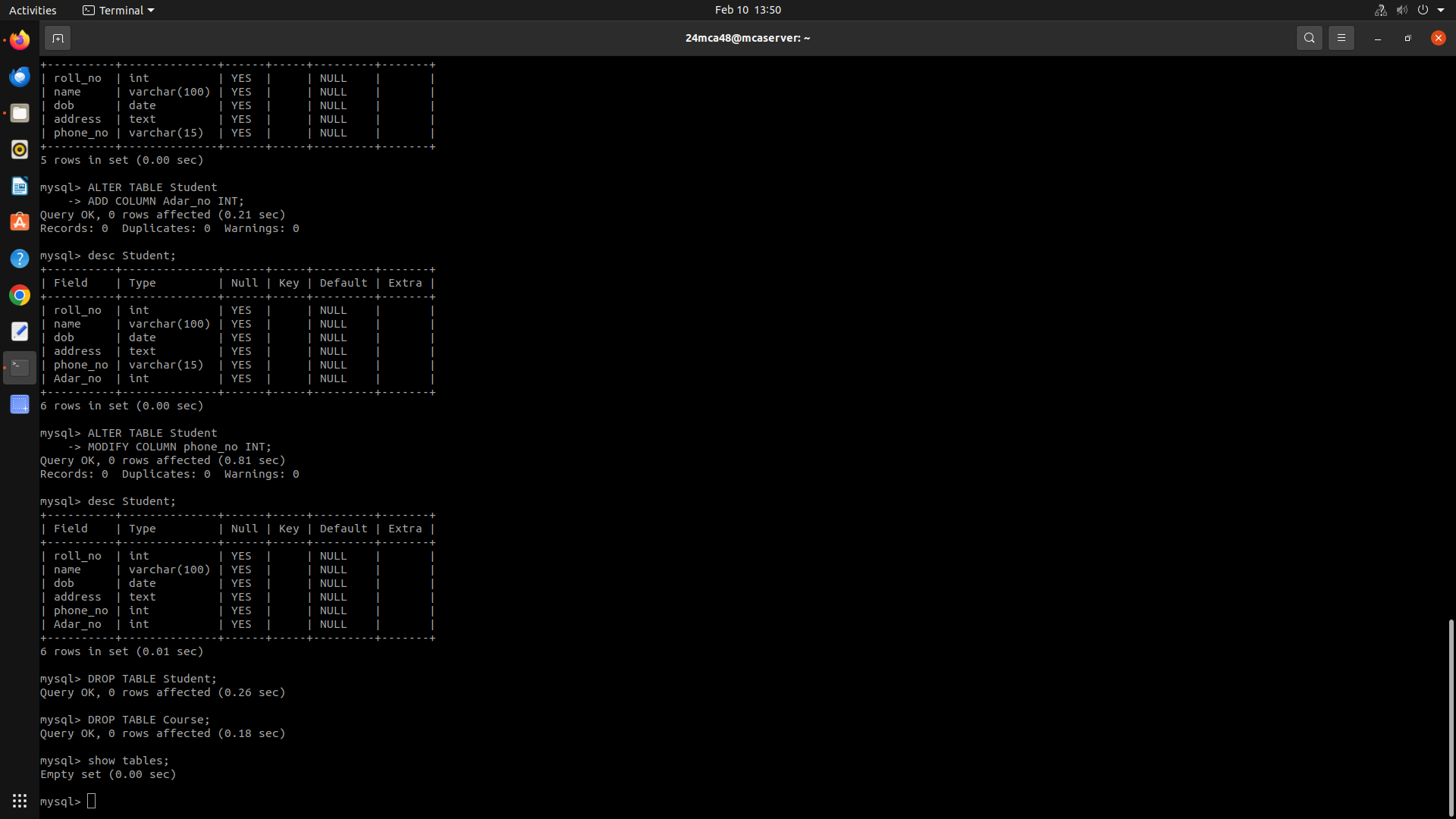
6. Drop the column blood\_grp from Student table.



7. Add a new column Adar\_no with domain number to the table Student.



8. Change the datatype of phone\_no from varchar to int.



9. Drop the tables.

**Drop table student;**

**Drop table college;**

**10. Delete the database.**

**Drop database 24mca48;**

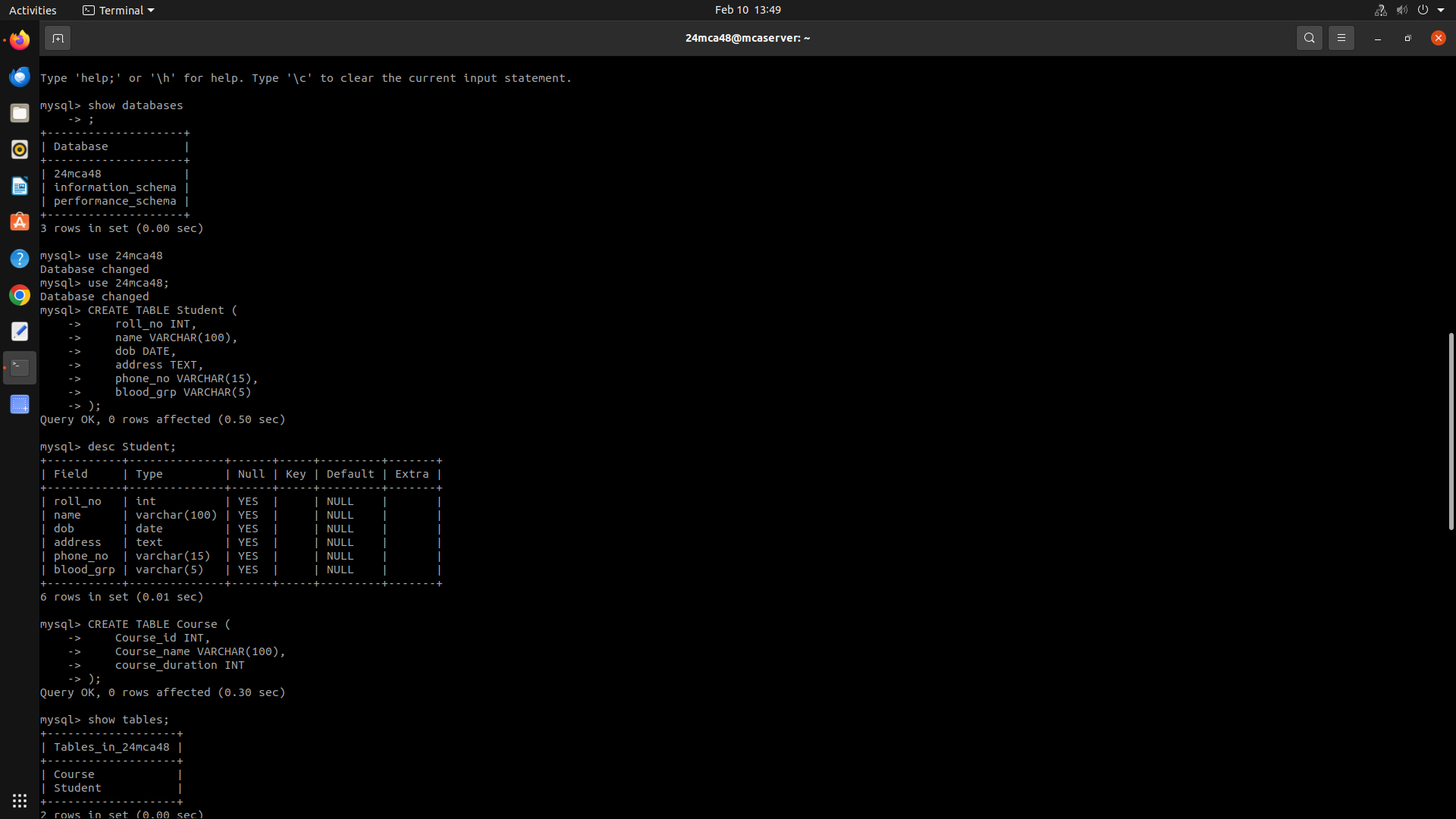
**B.** Consider the database for an organization. Write SQL commands to implement the following:

1. Create a database

**create database 24mca48;**

2. Select the current database

**use 24mca48;**

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3. Create the following tables:

a) Employee (emp\_no varchar, emp\_name varchar, dob date, address

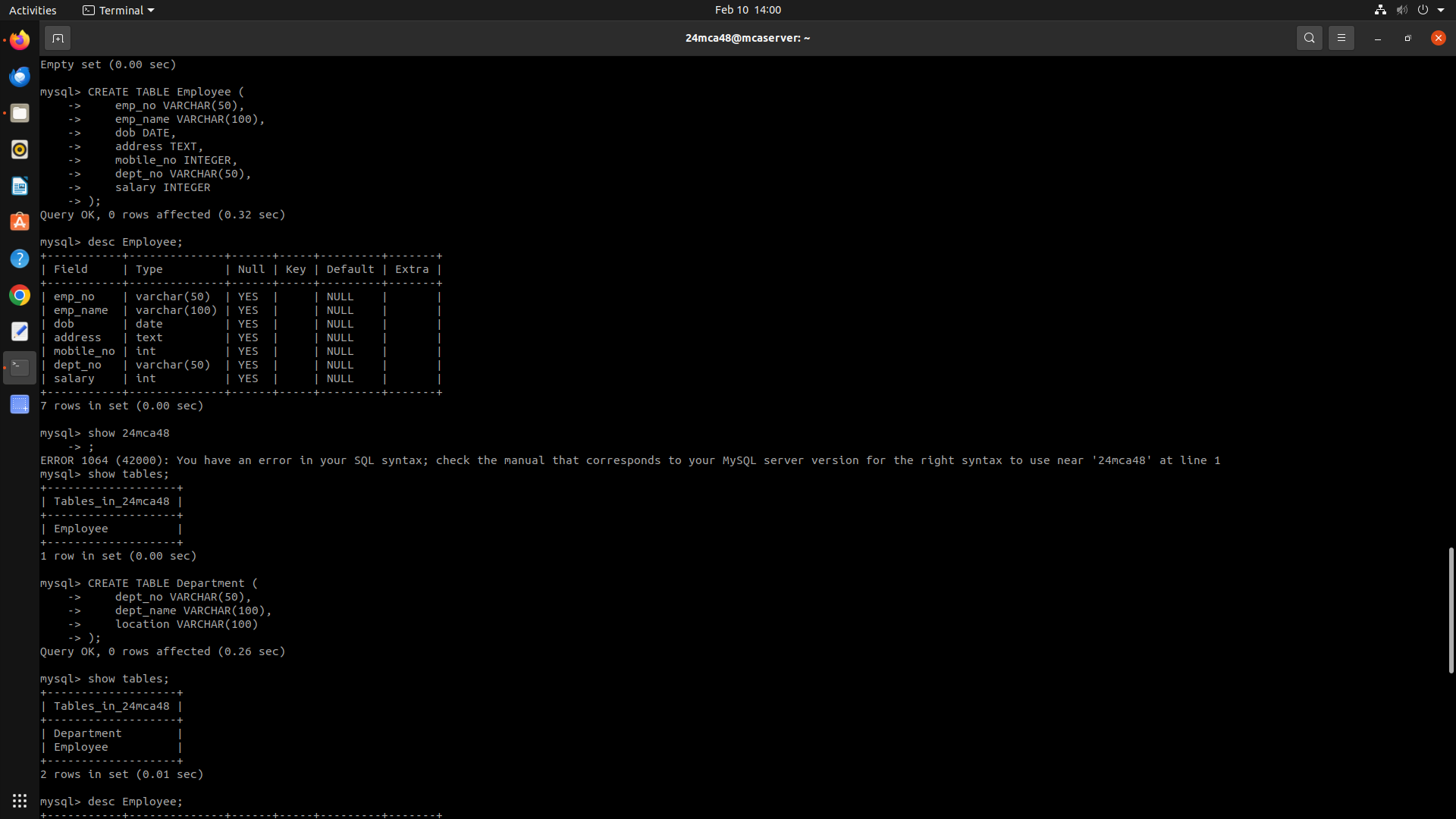
text, mobile\_no integer, dept\_no varchar, salary integer)

**CREATE TABLE employee(emp\_no varchar(5), emp\_name varchar(30), dob date, address varchar(255), mobile\_no int, dpt\_no varchar(10), salary int);**

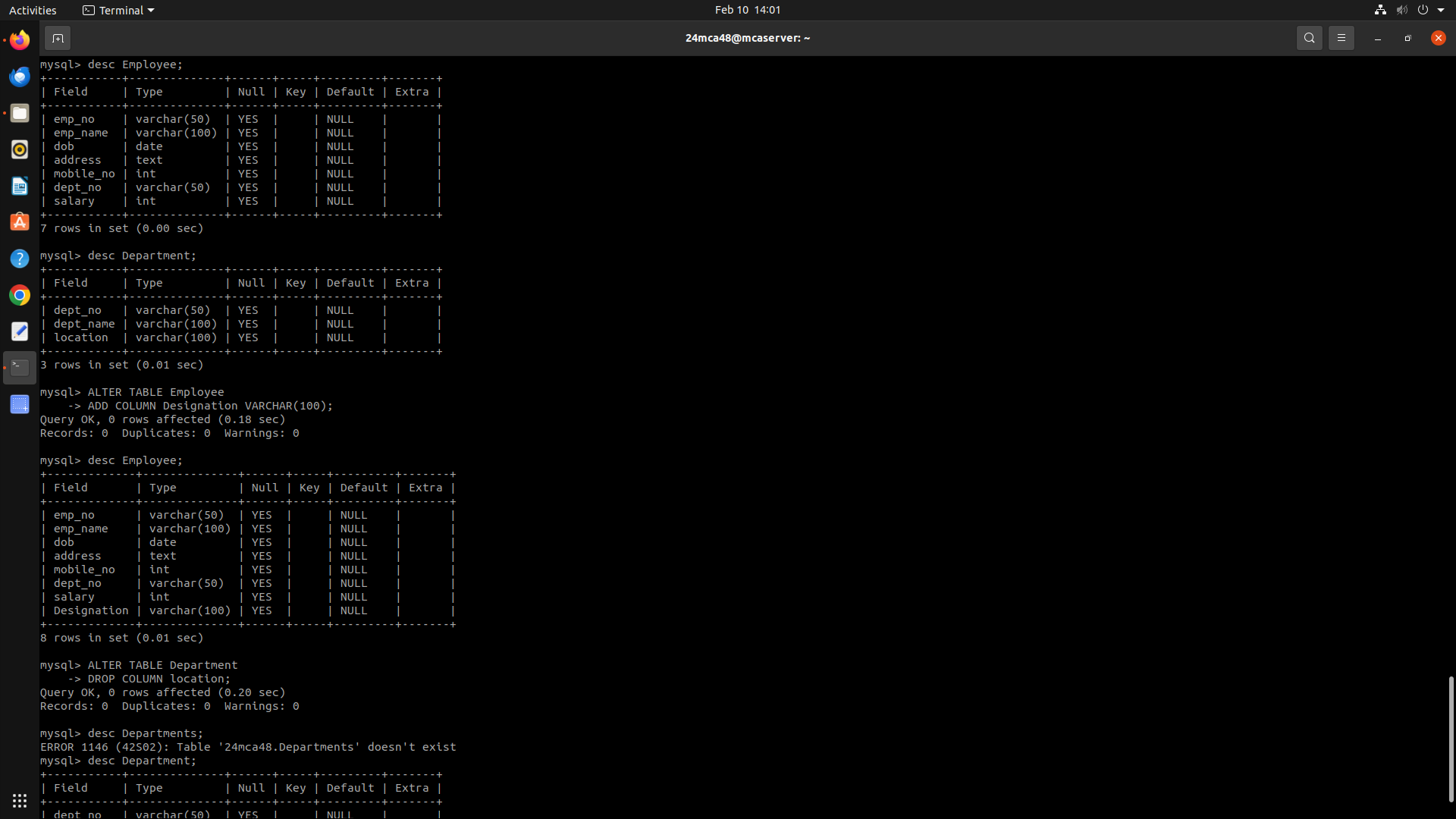
b) Department (dept\_no varchar, dept\_name varchar, location varchar)

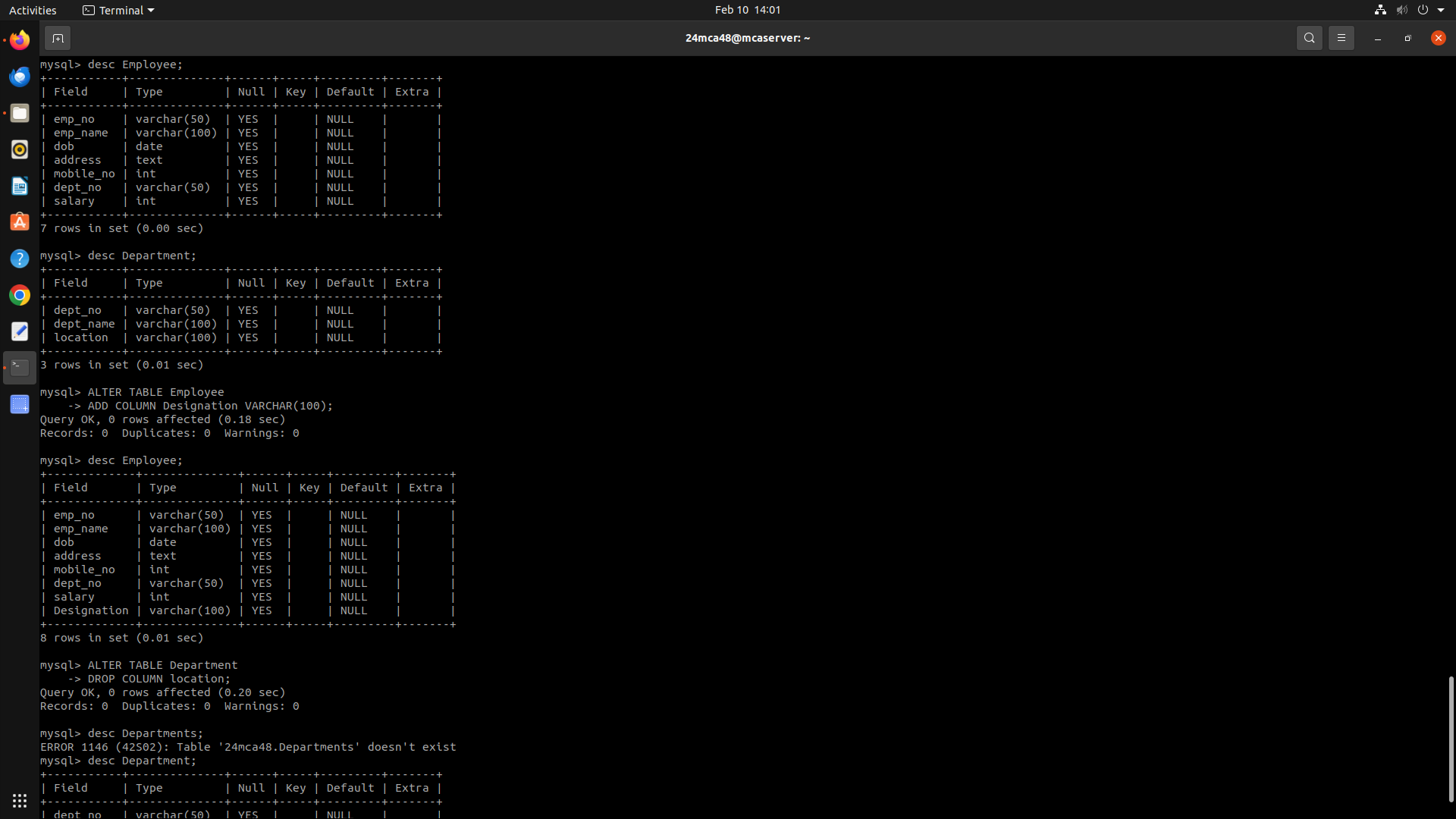
**CREATE TABLE department(dpt\_no varchar(100), dpt\_name varchar(100), location varchar(255));**

4. List all tables in the current database.

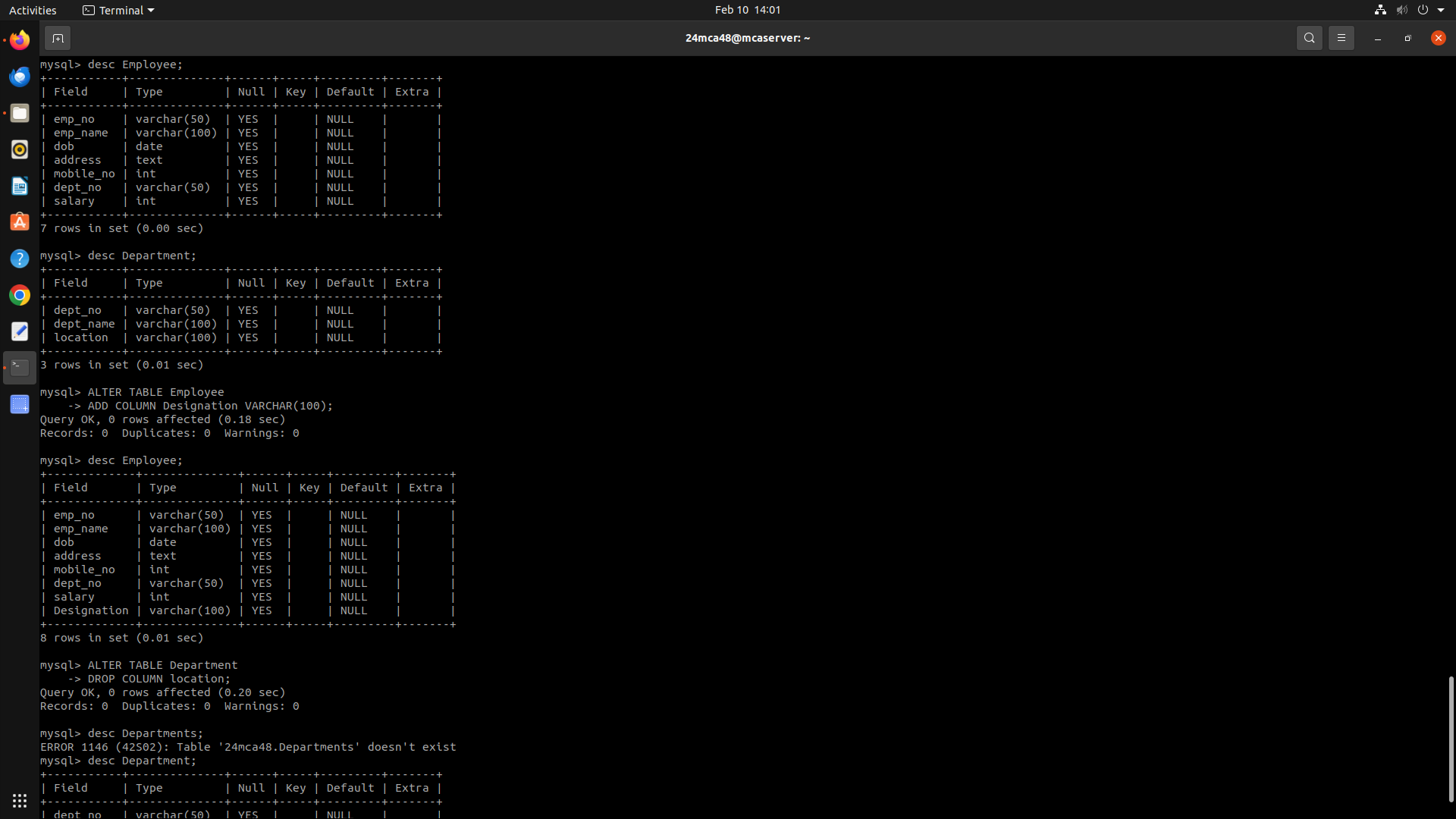


5. Display the structure of the Employee table and Department table.

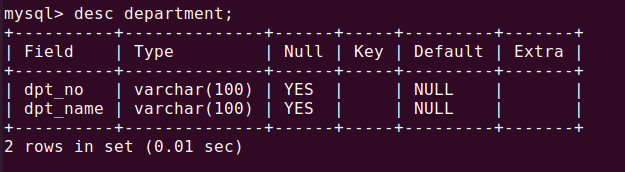


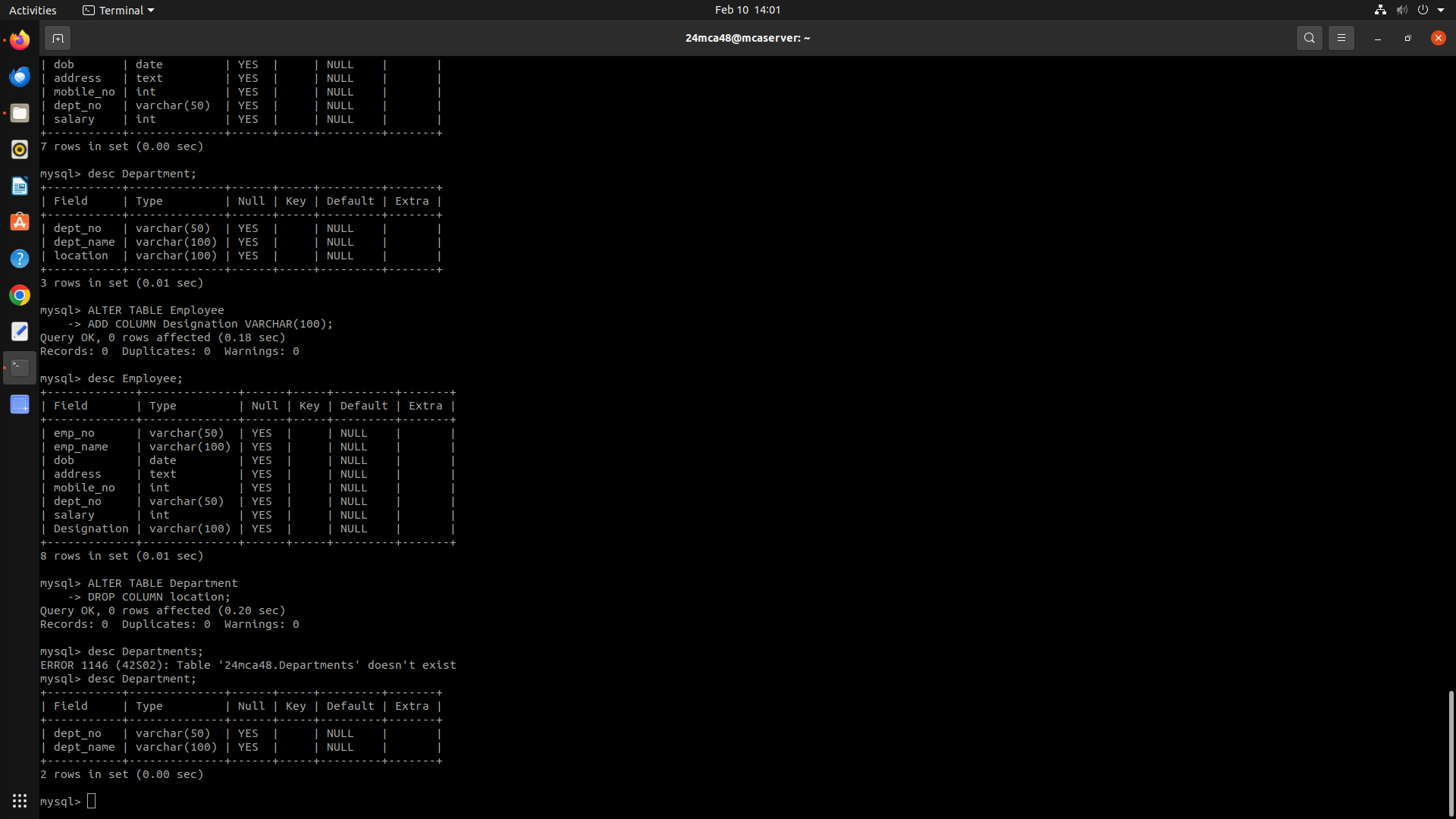


6. Add a new column ‘Designation’ to the table Employee.



7. Drop the column ‘location’ from Department table.

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**Experiment No: 2**

**Familiarization of SQL Constraints.**

1. Create new table Persons with attributes PersonID (integer, PRIMARY KEY),

Name (varchar , NOT NULL), Aadhar (Number, NOT NULL, UNIQUE), Age

(integer , CHECK>18).

**CREATE TABLE persons(person\_id int primary key, name varchar(200) NOT NULL, aadar INT NOT NULL UNIQUE, age int, CHECK(age > 18));**

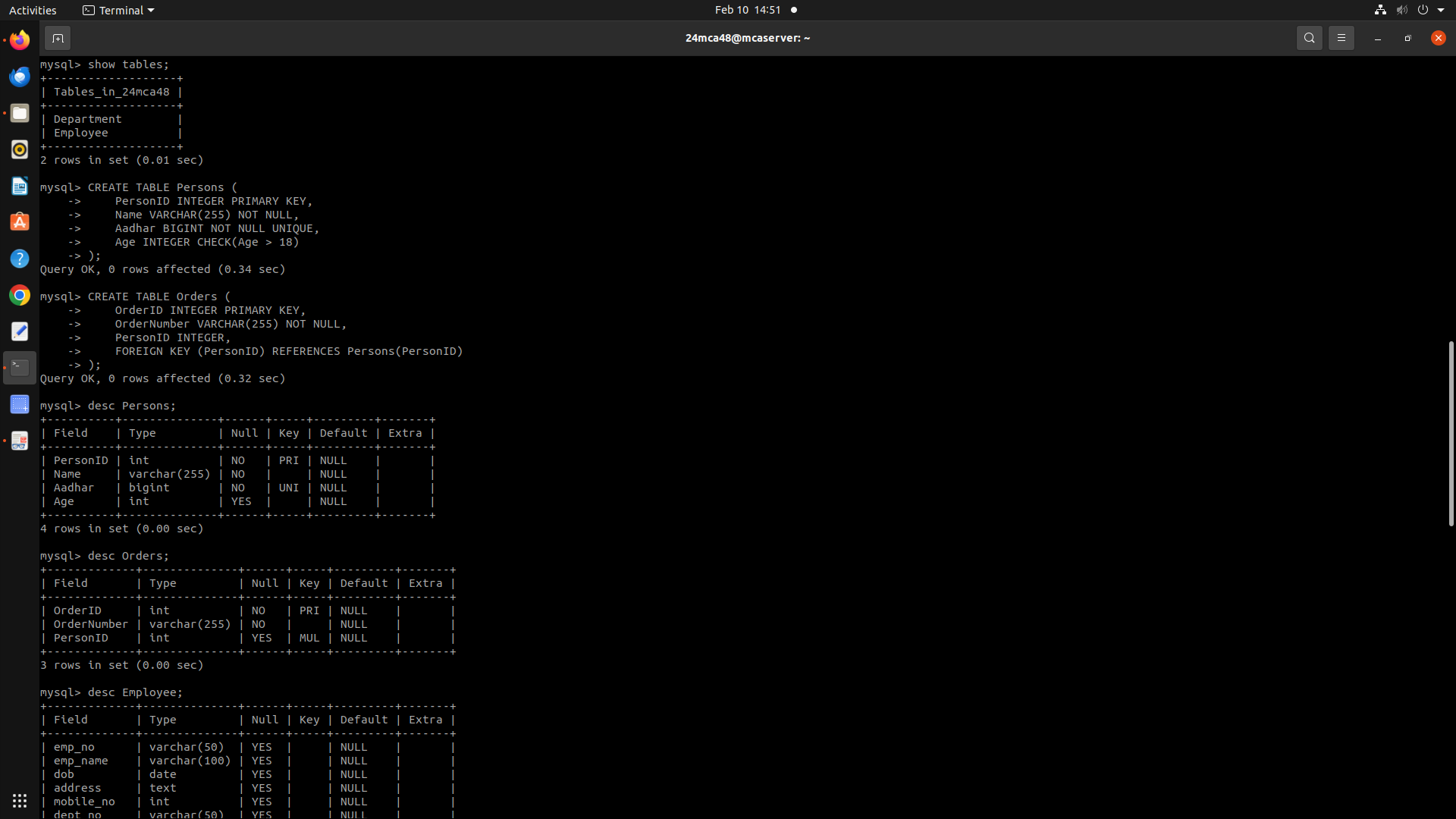
2. CREATE TABLE Orders with attributes OrderID (PRIMARY KEY),

OrderNumber(NOT NULL) and PersonID( set FOREIGN KEY on attribute

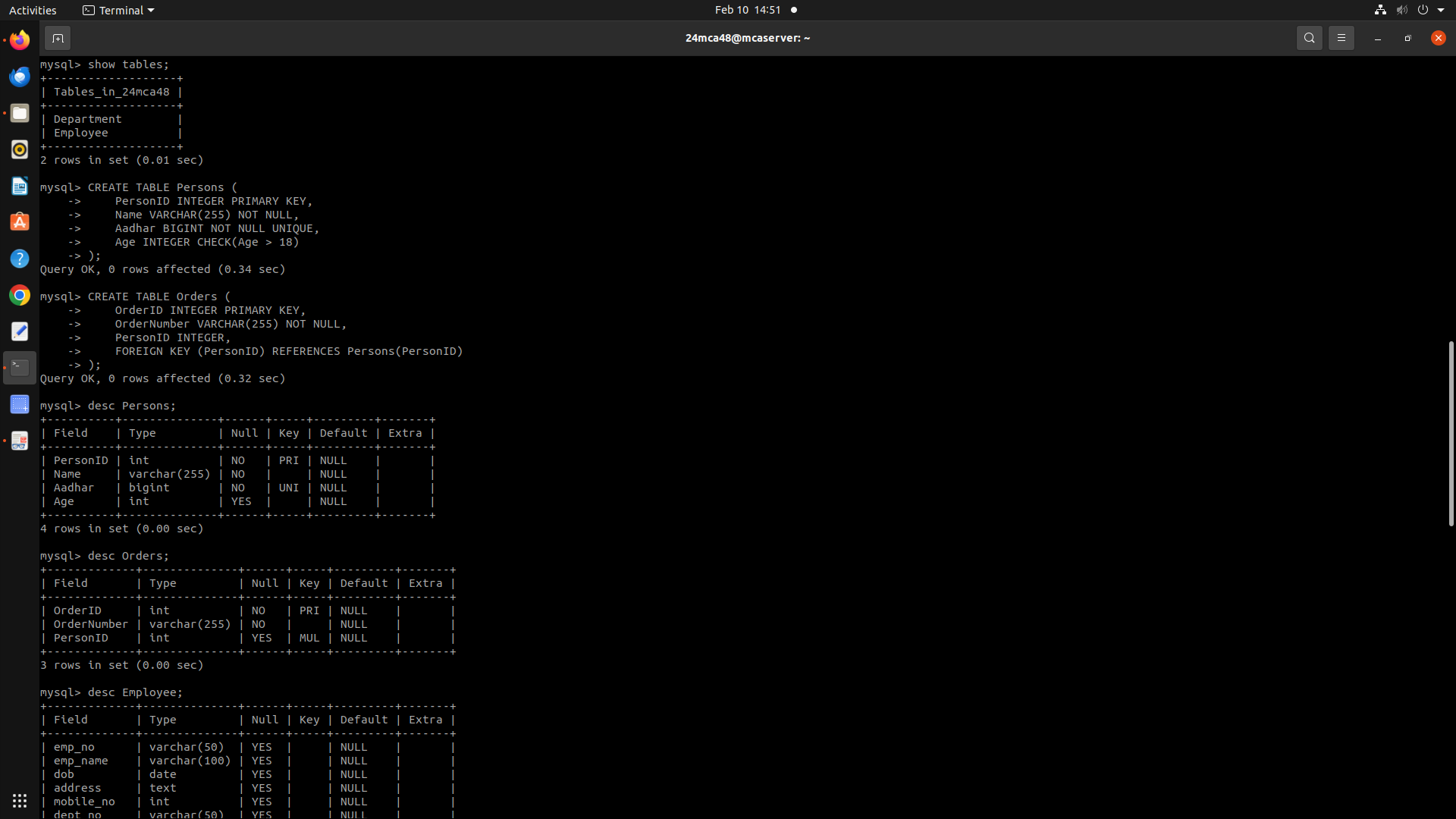
PersonID referencing the column PersonId of Person table)

**CREATE TABLE orders(order\_id int primary key, order\_no varchar(255) NOT NULL, person\_id int, FOREIGN KEY(person\_id) REFERENCES persons(person\_id));**

3. Display the structure of Persons tables.

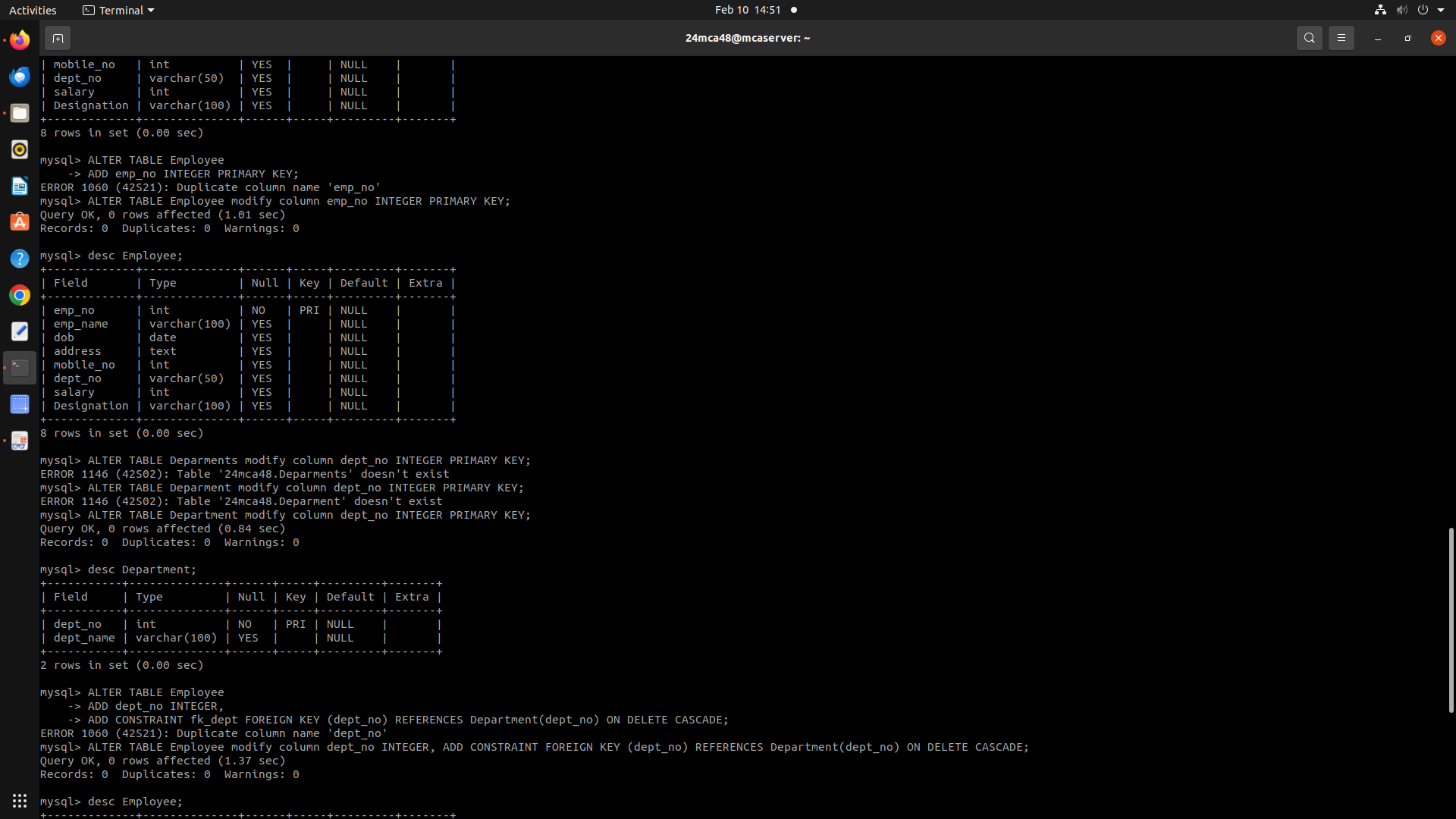


4. Display the structure of Orders tables.



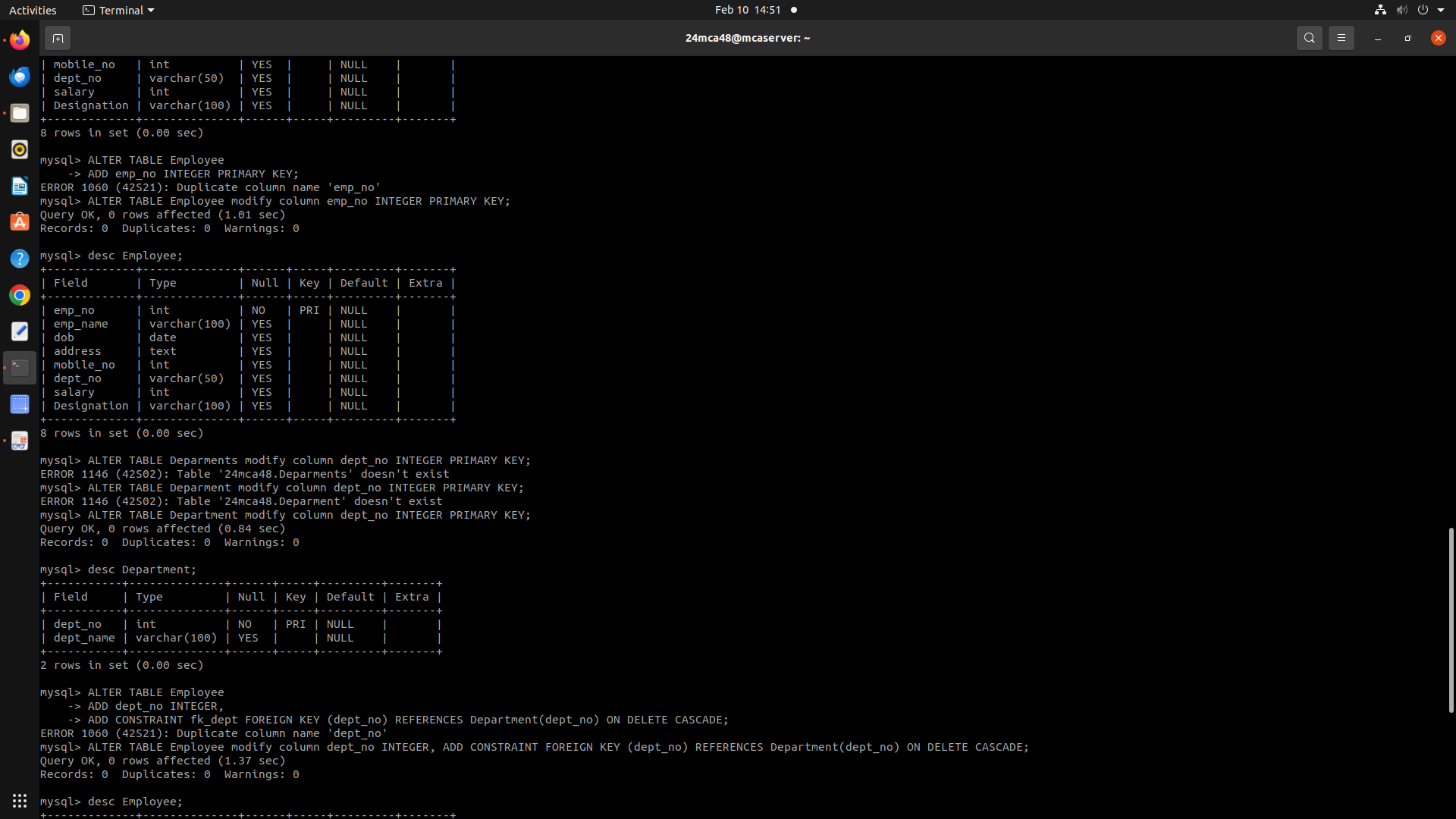
5. Add emp\_no as the primary key of the table Employee.

**ALTER TABLE employee MODIFY COLUMN emp\_no int primary key;**

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6. Add dept\_no as the primary key of the table Department.

**ALTER TABLE department MODIFY COLUMN dpt\_no int primary key;**

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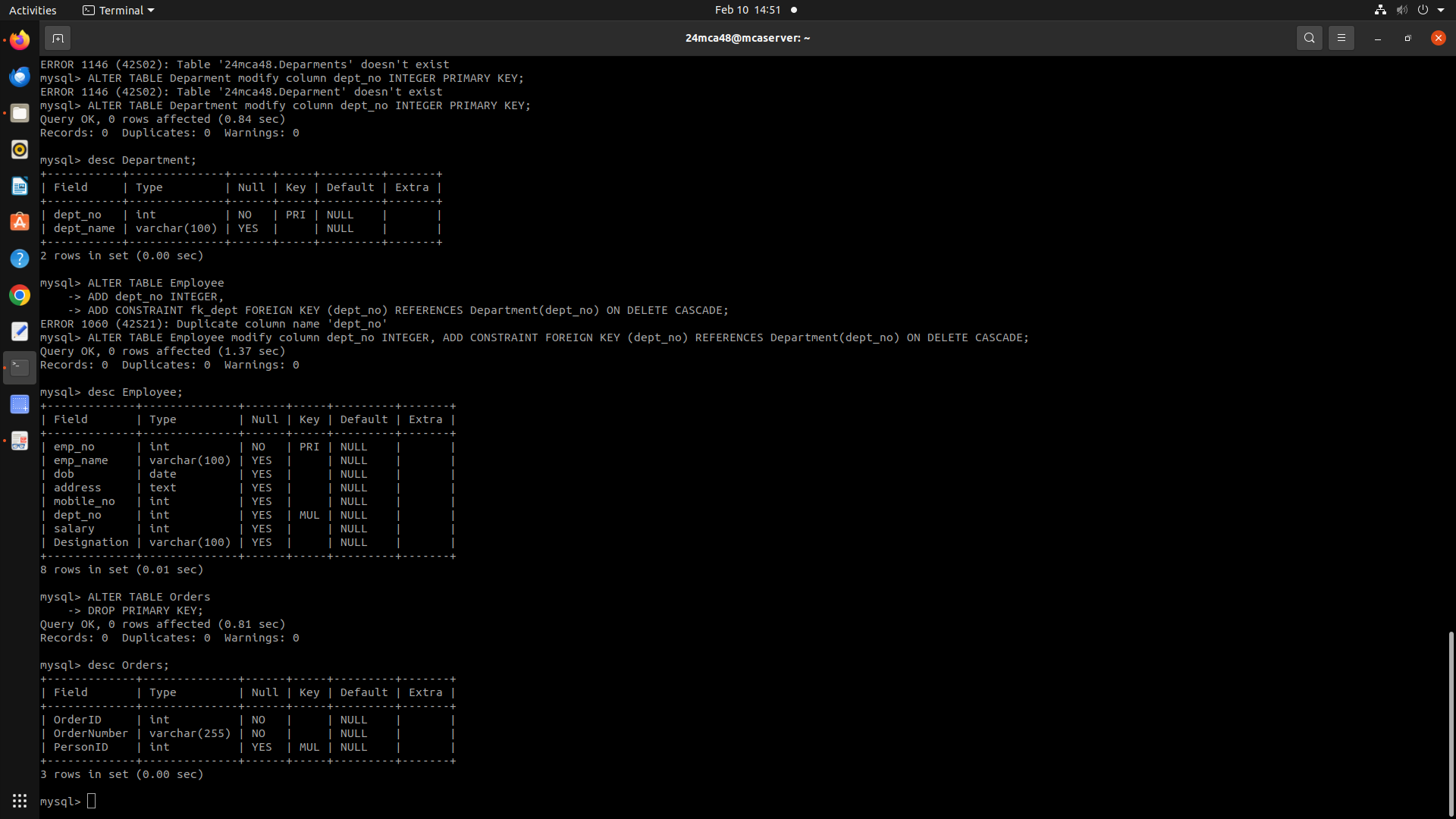
7. Add dept\_no in Employee table as the foreign key reference to the table Department

with on delete cascade.

**ALTER TABLE employee modify column dept\_no INTEGER, ADD CONSTRAINT FOREIGN KEY(**DEPT\_NO**) REFERENCES Department(dept\_no) ON DELETE CASCADE;**

8. Drop the primary key of the table Orders.

**ALTER TABLE orders DROP order\_id;**

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