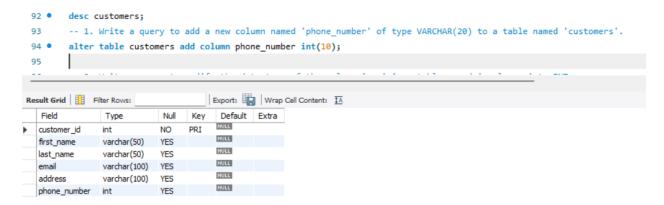
```
-- Create 'customers' table
CREATE TABLE customers (
  customer id INT PRIMARY KEY,
  first name VARCHAR(50),
  last name VARCHAR(50),
  email VARCHAR(100),
  address VARCHAR(100)
);
-- Create 'employees' table
CREATE TABLE employees (
  employee id INT PRIMARY KEY,
  first_name VARCHAR(50),
  last name VARCHAR(50),
  age VARCHAR(10), -- This will be modified later to INT
  salary DECIMAL(10, 2),
  department id INT
);
-- Create 'contacts' table
CREATE TABLE contacts (
  contact id INT PRIMARY KEY,
  name VARCHAR(50),
  address VARCHAR(100) -- This will be renamed later to 'home address'
);
-- Create 'departments' table
CREATE TABLE departments (
  department_id INT PRIMARY KEY,
  department name VARCHAR(50)
);
```

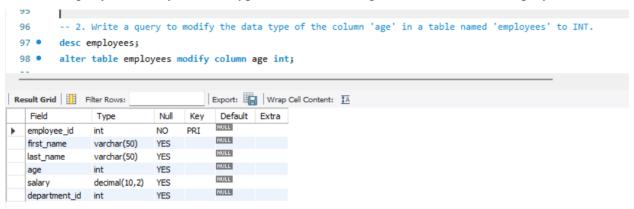
```
-- Create 'students' table
CREATE TABLE students (
  student id INT PRIMARY KEY,
  first name VARCHAR(50),
  last name VARCHAR(50),
  email VARCHAR(100)
);
-- Create 'users' table
CREATE TABLE users (
  user id INT PRIMARY KEY,
  username VARCHAR(50),
  email VARCHAR(100) -- This will have a unique constraint added later
);
-- Create 'inventory' table
CREATE TABLE inventory (
  product id INT PRIMARY KEY,
  product name VARCHAR(50),
  quantity INT -- Default value will be set later
);
-- Create 'products' table
CREATE TABLE products (
  product_id INT PRIMARY KEY AUTO_INCREMENT,
  product name VARCHAR(50),
  price DECIMAL(10, 2)
);
-- Create 'locations' table
```

```
CREATE TABLE locations (
  location id INT,
  street address VARCHAR(100),
  postal_code VARCHAR(20),
  city VARCHAR(50),
  state province VARCHAR(50), -- This will be renamed to 'state' later
  country id VARCHAR(2),
  PRIMARY KEY (location_id)
);
-- Create 'job history' table
CREATE TABLE job history (
  employee_id INT,
 job id VARCHAR(10),
  department id INT,
  start_date DATE,
  end date DATE
);
-- Create 'jobs' table
CREATE TABLE jobs (
  job id VARCHAR(10) PRIMARY KEY,
  job_title VARCHAR(50),
  min salary DECIMAL(10, 2),
  max_salary DECIMAL(10, 2)
);
```

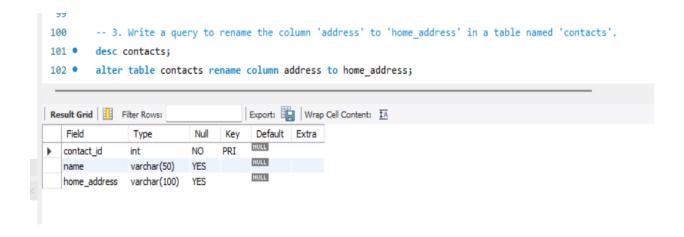
1. Write a query to add a new column named 'phone_number' of type VARCHAR(20) to a table named 'customers'.



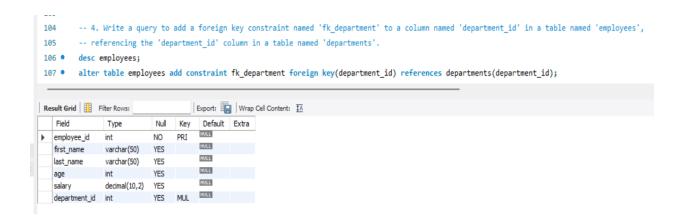
2. Write a query to modify the data type of the column 'age' in a table named 'employees' to INT.



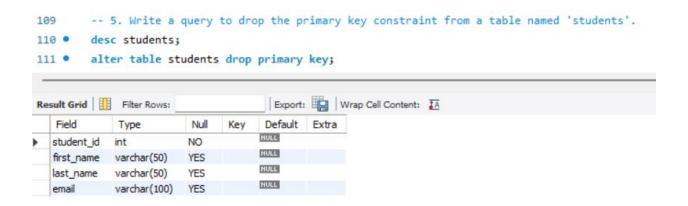
3. Write a query to rename the column 'address' to 'home_address' in a table named 'contacts'.



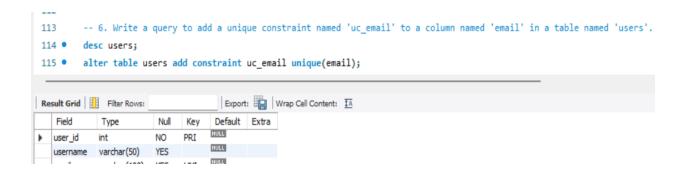
4. Write a query to add a foreign key constraint named 'fk_department' to a column named 'department_id' in a table named 'employees', referencing the 'department_id' column in a table named 'departments'.



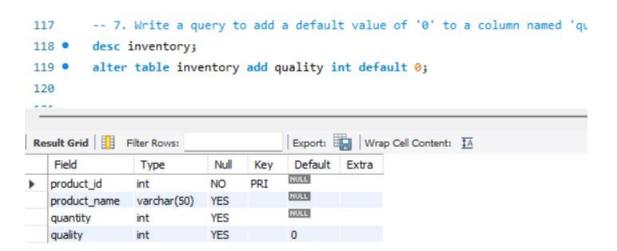
5. Write a query to drop the primary key constraint from a table named 'students'.



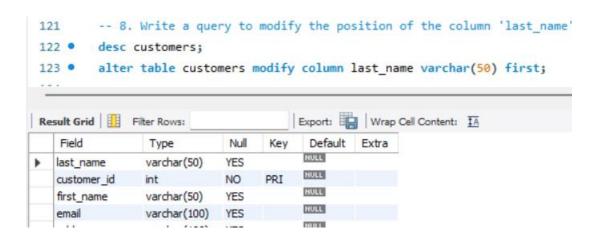
6. Write a query to add a unique constraint named 'uc_email' to a column named 'email' in a table named 'users'.



7. Write a query to add a default value of '0' to a column named 'quantity' in a table named 'inventory'.



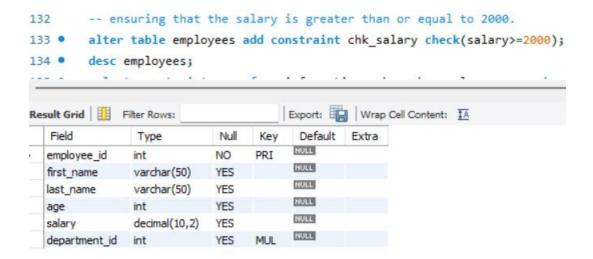
8. Write a query to modify the position of the column 'last_name' to be the first column in a table named 'customers'.



9. Write a query to change the auto-increment value of a column named 'product_id' to start from 1001 in a table named 'products'.

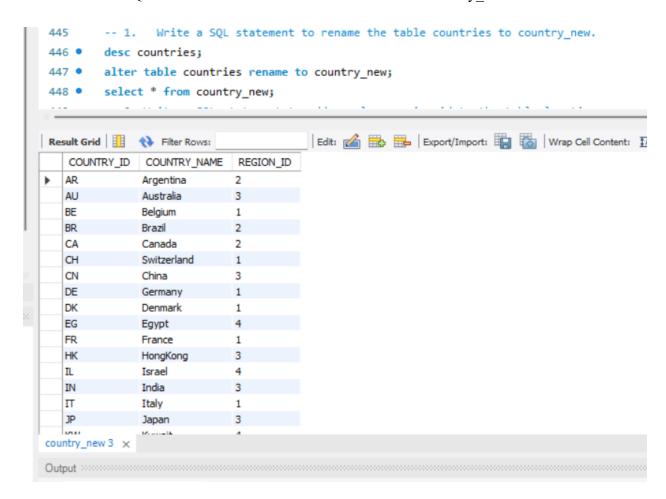
```
-- 9. Write a query to change the auto-increment value of a column named 'product id'
125
        desc products;
126 •
        alter table products auto_increment=1001;
127 •
        insert into products values(product_id,'A',23);
128 •
        insert into products values(product_id,'B',24);
        select * from products;
130 •
Edit: 🚄 🖶 Export/Import: 📳 👸 Wrap Cell Content: 🔣
   product id
            product_name
                        price
  1001
                        23.00
  1002
                        24.00
           NULL
  NULL
                       HULL
```

10. Write a query to add a check constraint named 'chk_salary' to a column named 'salary' in a table named 'employees', ensuring that the salary is greater than or equal to 2000.

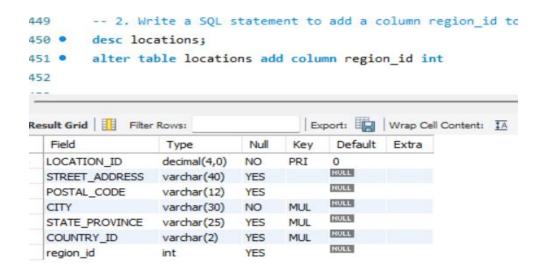


Based on hr database

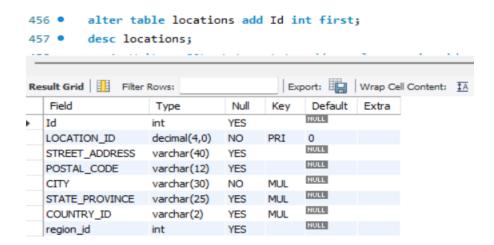
1. Write a SQL statement to rename the table countries to country new.



2. Write a SQL statement to add a column region id to the table locations.



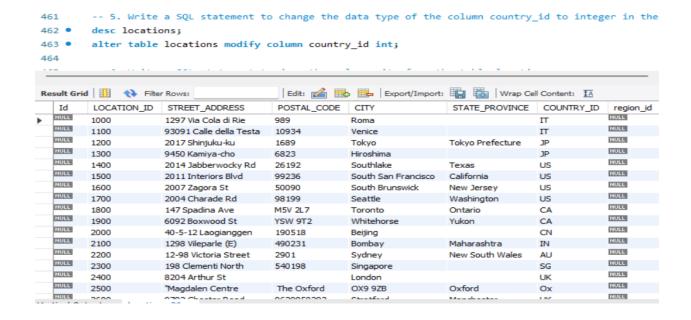
3. Write a SQL statement to add a column ID as the first column of the table locations.



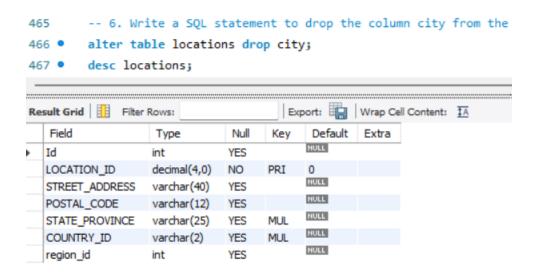
4. Write a SQL statement to add a column region id after state province to the table locations.

```
-- 4. Write a SQL statement to add a column region_id after state_province to the table locations desc locations; alter table locations add region_id int after state_province; select * from locations;
```

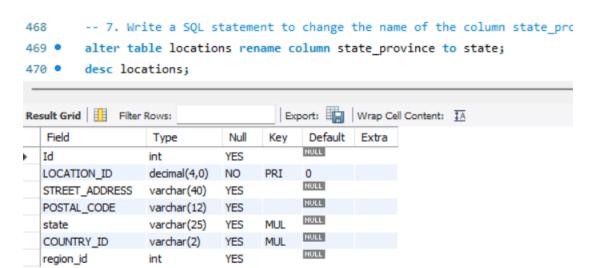
5. Write a SQL statement to change the data type of the column country_id to integer in the table locations. CAN'T MODIFY BECAUSE country_id ALREADY COINTAINING VARCHAR VALUES



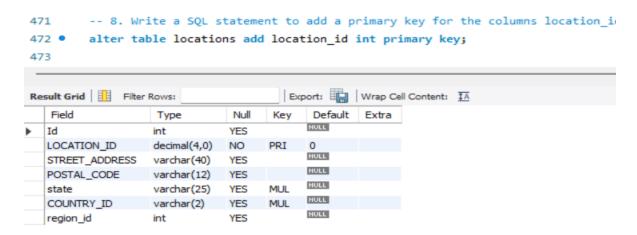
6. Write a SQL statement to drop the column city from the table locations.



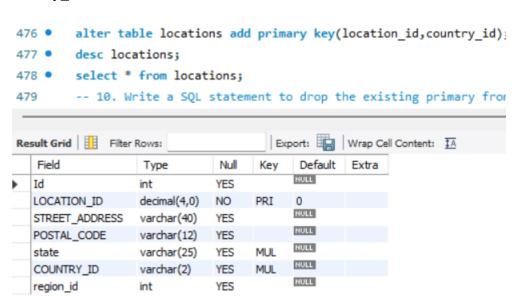
7. Write a SQL statement to change the name of the column state_province to state, keeping the data type and size same.



8. Write a SQL statement to add a primary key for the columns location id in the locations table.



9. Write a SQL statement to add a primary key for a combination of columns location_id and country id.



10. Write a SQL statement to drop the existing primary from the table locations on a combination of columns location id and country id.

```
480 •
         alter table locations drop primary key;
         -- if want to drop one only then
         alter table locations drop primary key, add primary key(country_id);
482 •
483
Result Grid | Filter Rows:
                                         Export: Wrap Cell Content: IA
   Field
                                              Default
                                                      Extra
                    Type
                                Null
                                             NULL
  Id
                   int
                                YES
                                             0
  LOCATION ID
                   decimal(4,0)
                                NO
                                             NULL
  STREET_ADDRESS
                   varchar(40)
                                YES
                                             NULL
                                YES
  POSTAL_CODE
                   varchar(12)
                                             NULL
                   varchar(25)
                                YES
                                       MUL
                                             NULL
  COUNTRY_ID
                 varchar(2)
                                YES
                                      MUL
                                             NULL
  region_id
```

11. Write a SQL statement to add a foreign key on the job_id column of the job_history table referencing the primary key job_id of jobs table.

```
-- 11. Write a SQL statement to add a foreign key on the job_id column of the job_history table referencing the p desc job_history; desc jobs; alter table job_history add foreign key(job_id) references jobs(job_id);
```

12. Write a SQL statement to add a foreign key constraint named fk_job_id on the job_id column of the job history table referencing the primary key job id of the jobs table.

```
-- 12. Write a SQL statement to add a foreign key constraint named tk_job_id on the job_id colu-
-- referencing the primary key job_id of the jobs table.
alter table job_history add constraint fk_job_id foreign key(job_id) references jobs(job_id);
```

13. Write a SQL statement to drop the existing foreign key fk_job_id from the job_history table on job id column which is referencing the job id of jobs table.

```
alter table job history drop foreign key fk job id;
```

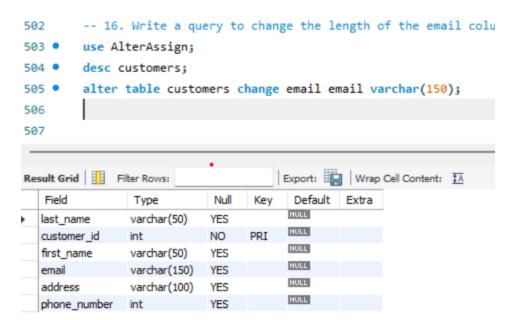
14. Write a SQL statement to add an index named indx_job_id on job_id column in the table job history.

```
-- 14. Write a SQL statement to add an index named indx_job_i alter table job_history add index indx_job_id(job_id);
```

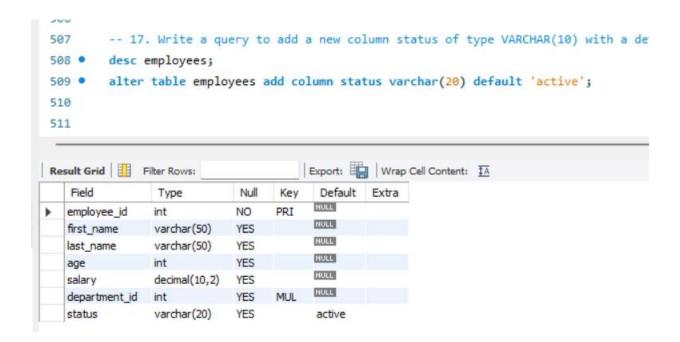
15. Write a SQL statement to drop the index indx job id from job history table.

```
-- 15. Write a SQL statement to drop the index indx_job_id from job_history table. alter table job_history drop index indx_job_id;
```

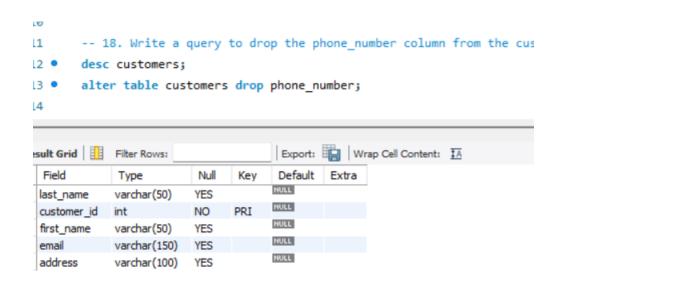
16. Write a query to change the length of the email column in the customers table to VARCHAR(150).



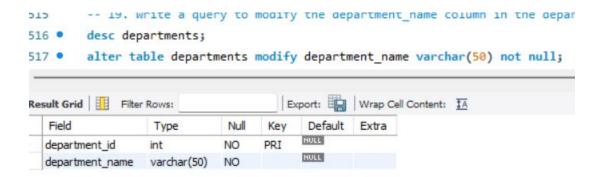
17. Write a query to add a new column status of type VARCHAR(10) with a default value of 'active' to the employees table.



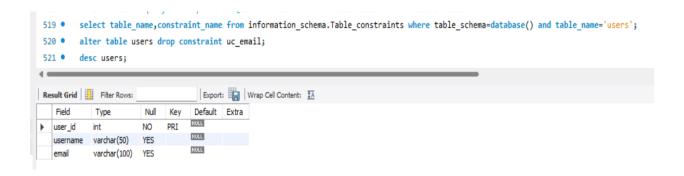
18. Write a query to drop the phone number column from the customers table.



19. Write a query to modify the department_name column in the departments table to ensure it cannot contain NULL values.



20. Write a query to drop the UNIQUE constraint on the email column in the users table.



21. Write a query to rename the inventory table to product inventory.

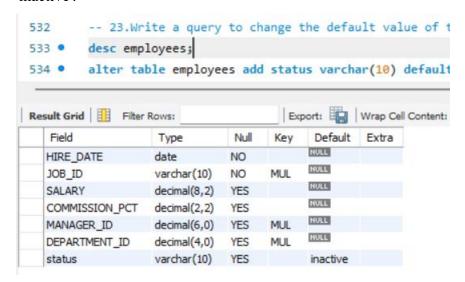


22. Write a query to add a foreign key constraint on the employee_id column of the job_history table, referencing the employee_id column of the employees table, with ON DELETE CASCADE.

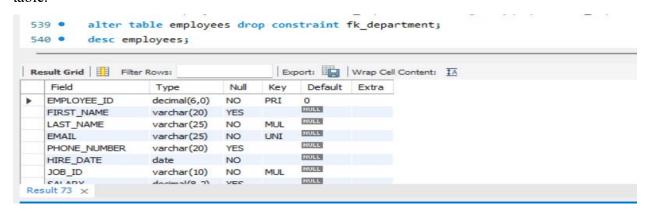
```
-- 22.Write a query to add a foreign key constraint on the employee_id column of the job_history table,
-- referencing the employee_id column of the employees table, with ON DELETE CASCADE.

desc job_history;
select table_name,constraint_name from information_schema.Table_constraints where table_schema=database() and table_name='job_history';
alter table job_history add constraint fk foreign key(employee_id) references employees(employee_id);
```

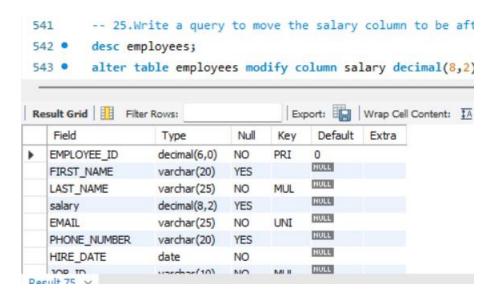
23. Write a query to change the default value of the status column in the employees table to 'inactive'.



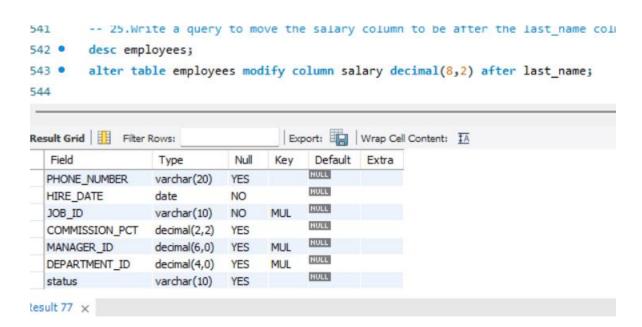
24. Write a query to drop the foreign key constraint named fk_department from the employees table.



25. Write a query to move the salary column to be after the last_name column in the employees table.



26. Write a query to remove the default value from the status column in the employees table.



27. Write a query to rename the uc_email constraint on the email column in the users table to unique email constraint.

```
-- 27. Write a query to rename the uc_email constraint on the email column in the users table to unique_email_constraint.

• alter table users rename index uc_email to unique_email_constraint;
```

28. Write a query to disable the foreign key constraint fk_department on the employees table and then re-enable it.

```
-- 28.Write a query to disable the foreign key constraint
set foreign_key_checks=0;
set foreign_key_checks=1;
```

29. Write a query to change the age column in the employees table to SMALLINT and allow it to accept NULL values.

