Assignment 1

Note:

- Test your SQL statements in a relational DBMS.
- For each question, **type your SQL statements and copy and paste the screenshots of the Result Grid.**
- Name the file as LAST_FIRST_HW1. Submit a PDF file via eLC.

CREATE AND VIEW TABLES

You do NOT need to provide the screenshots for this step.

- Open Sports.sql using the SQL editor. Change the database name to your database name (e.g., use xz_abc12345).

- Run Sports.sql to create all tables. The tables with names starting with "S_" were created using Sports.sql. Explore the tables and get familiar with the created tables, columns, and data. For example, "SHOW TABLES", "SHOW COLUMNS FROM tableName", "DESC tableName", "SELECT * FROM tablename". You do NOT need to provide the screenshots for this step.

CREATE and MODIFY TABLE

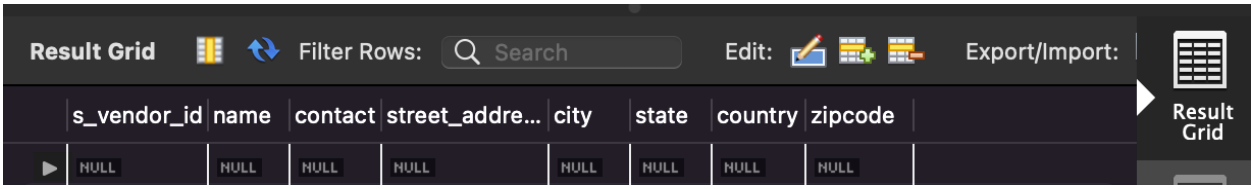
1. **Create an s_vendor table using information in the following chart.**

   s_vendor (s_vendor_id, name, street_address, city, state, zipcode)

Column Name	Key Type	Not Null/ Unique	FK Table	FK Column	Data Type	Max Length
s_vendor_id	PK				INT	9
name		NN			Varchar	50
contact					Varchar	60
street_address					Varchar	400
city					Varchar	30
state					Varchar	20
country					Varchar	30
zipcode					Varchar	75

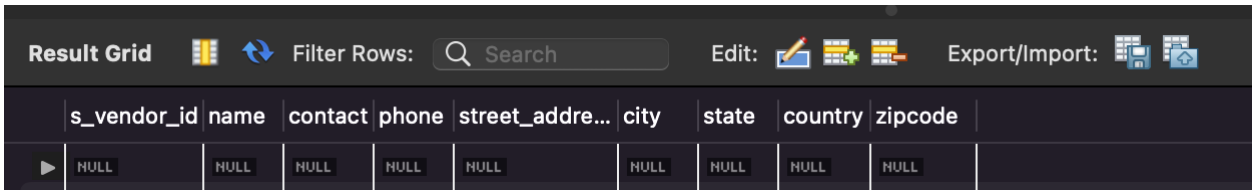
```
CREATE TABLE s_vendor
(
s_vendor_id INT(9) NOT NULL AUTO_INCREMENT,
name                    VARCHAR(50) NOT NULL,
contact                 VARCHAR(60),
street_address          VARCHAR(400),
city                    VARCHAR(30),
```

state VARCHAR(20),
country VARCHAR(30),
zipcode VARCHAR(75),
CONSTRAINT s_vendor_id_pk PRIMARY KEY (s_vendor_id));



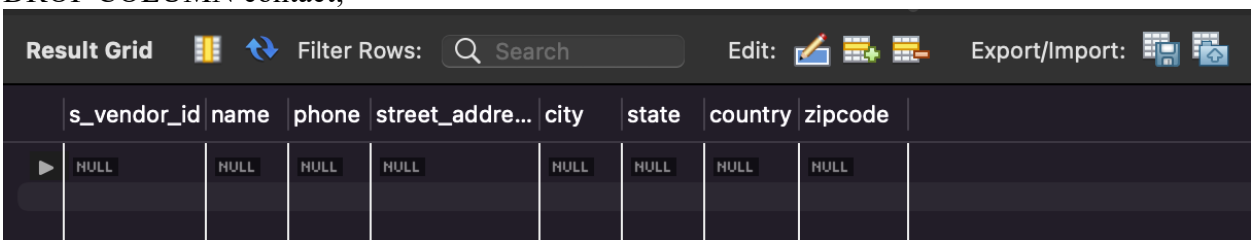
2. **Write a SQL statement to add a phone column using a valid datatype to the s_vendor table.**

ALTER TABLE s_vendor ADD phone VARCHAR(25) NOT NULL
AFTER contact;



3. **Write a SQL statement to remove the contact column of the s_vendor table.**

ALTER TABLE s_vendor
DROP COLUMN contact;



4. **Write SQL statements to insert 2 rows to the s_vendor table (Make up some data).**

INSERT INTO s_vendor (s_vendor_id, name, phone, street_address, city, state, country, zipcode)
VALUES (1, 'Priscilla Muiuane', '405-437-7057', '600 N Thomas St', 'Athens', 'GA', 'USA', '30601'),
(2, 'Sara Hague', '574-382-3894', '899 N Thomas St', 'Athens', 'GA', 'USA', '30601');

Result Grid Filter Rows: Search Edit: Export/Import:

s_vendor_id	name	phone	street_address	city	state	country	zipcode
1	Priscilla Muiuane	405-437-7057	600 N Thomas St	Athens	GA	USA	30601
2	Sara Hague	574-382-3894	899 N Thomas St	Athens	GA	USA	30601
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

s_vendor 4

SINGLE TABLE QUERY

5. **Write a query to list the id, name, and phone of all customers.**

   Return 15 rows.

   SELECT s_customer_id, name, phone FROM s_customer;

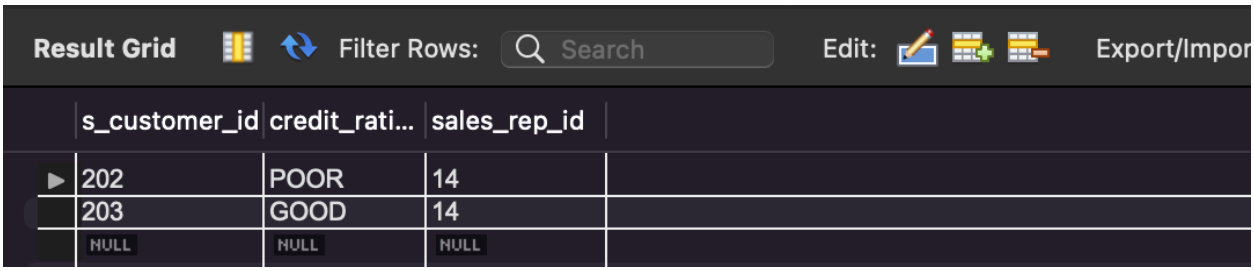
Result Grid Filter Rows: Search Edit: Export/Import:

s_customer_id	name	phone
201	Unisports	55-2066101
202	OJ Atheletics	81-20101
203	Delhi Sports	91-10351
204	Womansport	1-206-104-0103
205	Kam's Sporting Goods	852-3692888
206	Sportique	33-2257201
207	Sweet Rock Sports	234-6036201
208	Muench Sports	49-527454
209	Beisbol Si!	809-352689
210	Futbol Sonora	52-404562
211	Kuhn's Sports	42-111292
212	Hamada Sport	20-1209211
213	Big John's Sports E...	1-415-555-6281
214	Ojibway Retail	1-716-555-7171
215	Sporta Russia	7-3892456
NULL	NULL	NULL

6. Write a query to list the name, credit_rating and sales_rep_id of all customers whose sales representative's id is 14.

   Return 2 rows.

   SELECT s_customer_id, credit_rating, sales_rep_id FROM s_customer
   WHERE sales_rep_id = 14;



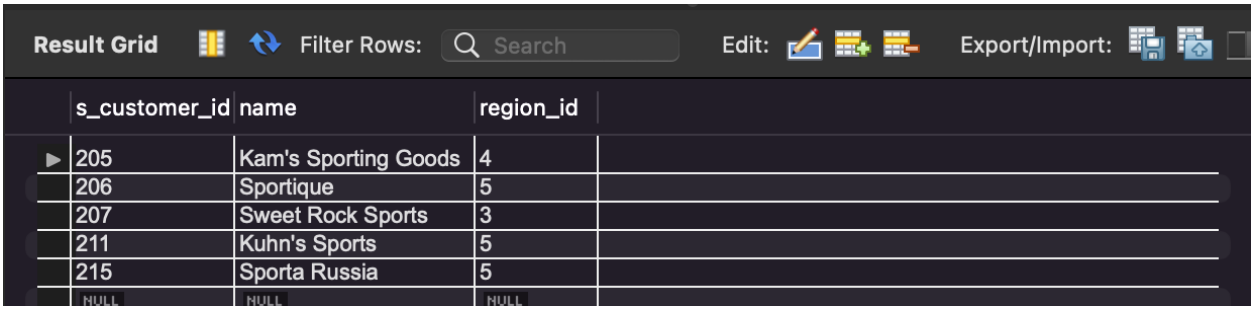
s_customer_id	credit_rati...	sales_rep_id
202	POOR	14
203	GOOD	14
NULL	NULL	NULL

7. **Write two queries to list the id, name, region_id of customers whose name starts with the letter "K" or "S". One query uses regular expression and the other query use wildcards.**

   Return 5 rows.

   SELECT s_customer_id, name, region_id FROM s_customer
   WHERE name LIKE 'K%' or name LIKE 'S%';

   SELECT s_customer_id, name, region_id FROM s_customer
   WHERE name REGEXP'^K|^S';

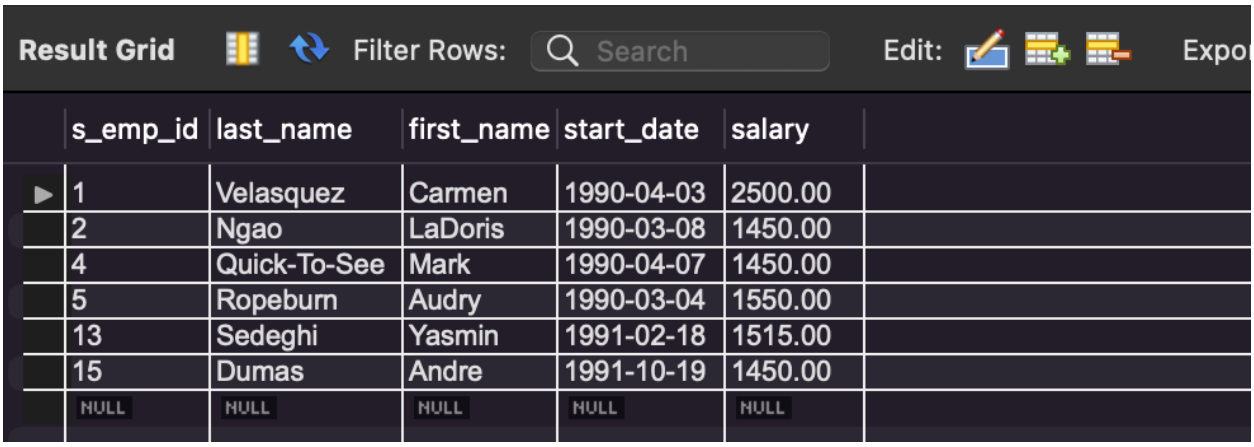


s_customer_id	name	region_id
205	Kam's Sporting Goods	4
206	Sportique	5
207	Sweet Rock Sports	3
211	Kuhn's Sports	5
215	Sporta Russia	5
NULL	NULL	NULL

8. **Write a query to list the id, last_name, first_name, start_date, and salary of employees who started before January 1, 1992 and have a salary higher than 1400.**

   - Return 6 rows.

SELECT s_emp_id, last_name, first_name, start_date, salary FROM s_emp
WHERE start_date <'1992-01-01' AND salary >1400;



Result Grid | Filter Rows: | Search | Edit:

s_emp_id	last_name	first_name	start_date	salary
1	Velasquez	Carmen	1990-04-03	2500.00
2	Ngao	LaDoris	1990-03-08	1450.00
4	Quick-To-See	Mark	1990-04-07	1450.00
5	Ropeburn	Audry	1990-03-04	1550.00
13	Sedeghi	Yasmin	1991-02-18	1515.00
15	Dumas	Andre	1991-10-19	1450.00
NULL	NULL	NULL	NULL	NULL

9. **Write two queries to list the name, region_ID of customers from "USA", "Russia" or "India". One query uses the IN operator and the other query uses logical operators.**

   Return 5 rows.

   SELECT name, region_id FROM s_customer
   WHERE country = 'USA' OR country = 'Russia' OR country = 'India';

   SELECT name, region_id FROM s_customer WHERE country IN
   ('USA','Russia','India');

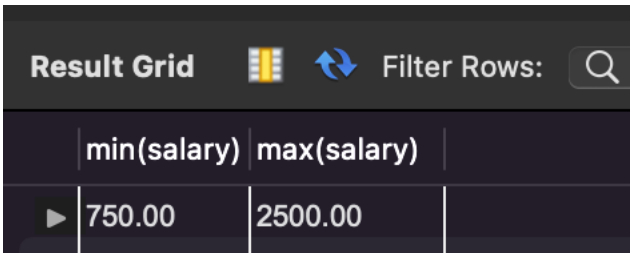
name	region_id
Delhi Sports	4
Womansport	1
Big John's Sports Emporium	1
Ojibway Retail	1
Sporta Russia	5

AGGREGATE FUNCTIONS and GROUP

10. **Write a query to display the minimum and maximum salary of employees.**

    Return 1 row.

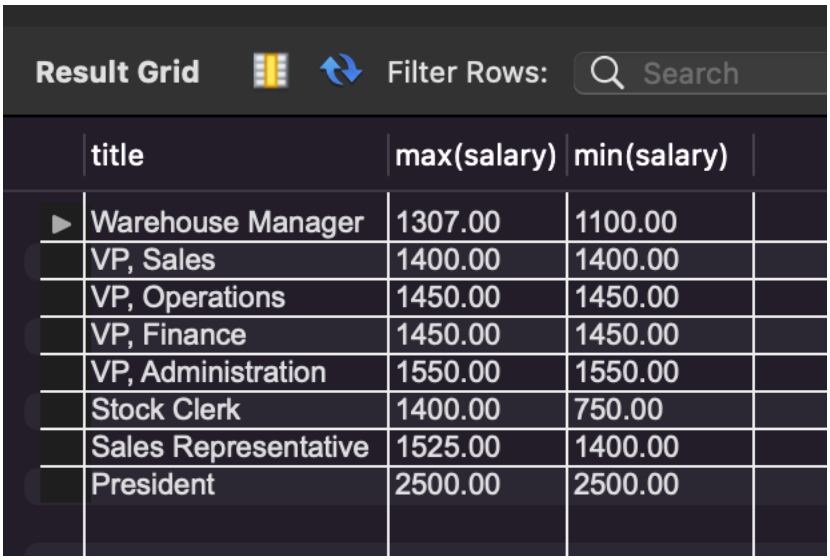
    SELECT min(salary), max(salary) FROM s_emp;



11. **Write a query to display the minimum and maximum salary for each job title in descending alphabetical order. Provide appropriate column headings for the resulting columns.**

    Return 8 rows.

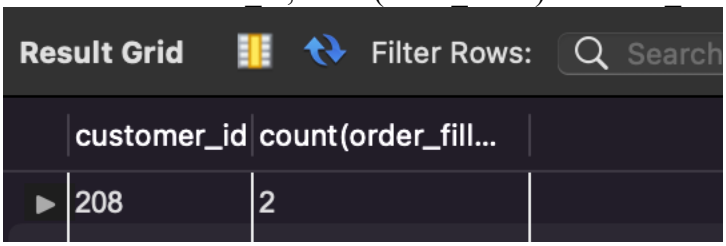
    SELECT title, max(salary) ,min(salary) FROM s_emp GROUP BY title
    ORDER BY title DESC;



12. **Write a query to count the number of orders placed by the customer with ID 208.**

    Return 1 row.

    SELECT customer_id, count(order_filled) FROM s_ord WHERE customer_id = 208;



13. **Write a query to list the ids of sales representatives who represent more than two customers.**

    Return 2 rows.

    SELECT sales_rep_id, COUNT(s_customer_id) as "customer_count" FROM s_customer

    GROUP BY (sales_rep_id) HAVING customer_count > 2;

sales_rep_id	customer_cou...
11	4
15	5

14. Write a query to find stock clerk whose salary is higher than the average salary of all employees.

    Return 1 row.

    SELECT s_emp_id ,title , salary

    FROM s_emp

    WHERE salary > (SELECT AVG(salary) FROM s_emp) and title = "stock clerk";

Result Grid Filter Rows:

s_emp_id	title	salary
16	Stock Clerk	1400.00
NULL	NULL	NULL